

VEECO INSTRUMENTS INC
Form S-4
August 12, 2002

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As filed with the Securities and Exchange Commission on August 12, 2002.

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-4

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

VEECO INSTRUMENTS INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

3559

(Primary Standard Industrial
Classification Code Number)

11-2989601

(I.R.S. Employer
Identification Number)

**100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200**

(Address, Including Zip Code, and Telephone Number,
Including Area Code, of Registrant's Principal Executive Offices)

**Gregory A. Robbins
Vice President and General Counsel
100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200 (516) 677-9126**

(Name, Address, Including Zip Code, and
Telephone Number, Including Area Code, of Agent for Service)

Copies to:

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Kaye Scholer LLP
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Wilson Sonsini Goodrich & Rosati,
Professional Corporation
650 Page Mill Road
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Approximate date of commencement of proposed sale to the public: At the effective time of the merger of Venice Acquisition Corp., a wholly-owned subsidiary of the Registrant, with and into FEI Company, which shall occur as soon as practicable after the effective date of this Registration Statement and the satisfaction or waiver of all conditions to the closing of such merger.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. //

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If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. //

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. //

CALCULATION OF REGISTRATION FEE

Title of each class of Securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value \$0.01 per share	50,000,000 shares	\$12.78(2)	\$639,000,000(2)	\$58,788

- (1) Based upon the maximum number of shares of Veeco Instruments Inc. common stock issuable, or to be reserved for issuance in the merger.
- (2) Estimated solely for the purpose of determining the registration fee in accordance with Rule 457(f) under the Securities Act of 1933, as amended, based on the average of the high and low prices for the shares of the Registrant as reported on The Nasdaq National Market on August 5, 2002.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

Subject to Completion, dated August 12, 2002

JOINT PROXY STATEMENT/PROSPECTUS

Dear Holders of Veeco and FEI Common Stock:

We are writing to you today about the proposed merger of Veeco Instruments Inc. and FEI Company. We are very excited about the opportunities we envision for the combined company. This merger will create a combined company that is a leader in metrology and process equipment solutions for the semiconductor, data storage, telecommunications/wireless and scientific research markets.

Upon completion of the merger, each outstanding share of FEI common stock will be exchanged for 1.355 shares of Veeco common stock. Veeco expects to issue approximately 44,000,000 shares of its common stock in the merger to FEI shareholders (and up to approximately 10,000,000 Veeco shares which may be issued in respect of FEI's options and other rights, and convertible notes). Upon completion of the merger, former FEI shareholders will own approximately 60% of Veeco's outstanding common stock (not including shares issuable in respect of options, convertible debt and other convertible securities and rights). Veeco common stock is quoted on The Nasdaq National Market under the symbol "VECO". As of August 8, 2002, the closing price of Veeco's common stock on The Nasdaq National Market was \$13.98 per share.

Attached are notices of special meetings of holders of Veeco and FEI common stock and a joint proxy statement/prospectus relating to the merger. The accompanying joint proxy statement/prospectus is the proxy statement for FEI's special meeting of shareholders to vote on the

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merger and for Veeco's special meeting of stockholders to vote on the issuance of Veeco common stock in the merger and certain amendments to Veeco's Amended and Restated Certificate of Incorporation. It also is the prospectus of Veeco related to the issuance of Veeco common stock to the FEI shareholders in the merger.

Completion of the merger requires the FEI shareholders to approve the merger and the Veeco stockholders to approve the issuance of Veeco common stock in the merger and approve the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock so that there will be sufficient authorized shares for issuance in the merger.

The merger and an investment in Veeco common stock involve risks. You should carefully consider the discussion in the section titled "Risk Factors" beginning on page 14 of the joint proxy statement/prospectus.

After careful consideration, the Veeco and FEI boards of directors unanimously recommend the merger. Your vote is important. Please vote "FOR" your company's proposal(s) by signing and dating the enclosed proxy card and returning it in the pre-addressed envelope provided. If you are an FEI shareholder and you do not return your proxy card or vote in person at the FEI meeting of shareholders, the effect will be the same as a vote against the merger. If you are a Veeco stockholder and you do not return your proxy card or vote in person at the Veeco meeting of stockholders in favor of the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation, the effect will be the same as a vote against these proposed amendments.

We appreciate your consideration of these matters.

Edward H. Braun
*Chairman, Chief Executive Officer and President
Veeco Instruments Inc.*

Vahé A. Sarkissian
*Chairman, President and Chief Executive Officer
FEI Company*

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of this transaction or the securities of Veeco to be issued in the merger, or determined if this joint proxy statement/prospectus is accurate or adequate. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated _____, 2002, and was first mailed to holders of Veeco and FEI common stock on or about _____, 2002.

The information in this joint proxy statement/prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

VEECO INSTRUMENTS INC.

100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To be held on _____, 2002

We will hold a special meeting of stockholders of Veeco Instruments Inc. at 9:30 a.m. (New York City time), on _____, 2002, at the Corporate Center, 395 North Service Road, Melville, New York to consider and vote upon the following proposals:

1. To approve the issuance of Veeco common stock, \$0.01 par value per share, under an Agreement and Plan of Merger, dated as of July 11, 2002, among Veeco, FEI Company and Venice Acquisition Corp., a wholly-owned subsidiary of Veeco, under which Venice Acquisition Corp. will be merged into FEI and FEI will become a wholly-owned subsidiary of Veeco;
2. To amend Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock, \$0.01 par value per share, from 60,000,000 shares to 175,000,000 shares;
- 3.

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To amend Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc.; and

4.

To transact any other business that may properly come before the special meeting or any adjournment or postponement of the special meeting.

Your Board of Directors unanimously has determined that the issuance of Veeco common stock to FEI shareholders in the Veeco FEI merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and you, and recommends that you vote to approve the issuance of Veeco common stock in connection with the merger. Your board of directors has also unanimously determined that the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation are advisable and recommends that you vote to approve them.

We describe the proposed merger more fully in the accompanying joint proxy statement/prospectus, which we urge you to read carefully.

Only Veeco stockholders of record at the close of business on _____, 2002 are entitled to notice of, and to vote at, the Veeco special meeting or any adjournment or postponement of the Veeco special meeting.

Your vote is important. To assure that your shares are represented at the Veeco special meeting, you are urged to complete, date and sign the enclosed proxy and promptly mail it in the postage-paid envelope provided, whether or not you plan to attend the Veeco special meeting in person.

You may revoke your proxy in the manner described in the accompanying joint proxy statement/prospectus at any time before it has been voted at the Veeco special meeting. You may vote in person at the Veeco special meeting even if you have returned a proxy.

By Order of the Board of Directors,

John F. Rein, Jr.
*Executive Vice President, Chief Financial
Officer, Treasurer and Secretary*

FEI COMPANY

7451 NW Evergreen Parkway
Hillsboro, OR 97124
(503) 640-7500

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS

To be held on _____, 2002

We will hold a special meeting of shareholders of FEI Company at _____ a.m. (local time), on _____, 2002, at _____ to consider and vote upon the following proposals:

1.

To approve the merger of Venice Acquisition Corp., a wholly-owned subsidiary of Veeco Instruments Inc., with and into FEI pursuant to which FEI will become a wholly-owned subsidiary of Veeco and each outstanding share of FEI common stock will be converted into the right to receive 1.355 shares of Veeco common stock; and

2.

To transact any other business that may properly come before the special meeting or any adjournment or postponement of the special meeting.

Your board of directors unanimously has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and you, and recommends that you vote to approve the merger.

We describe the merger more fully in the accompanying joint proxy statement/prospectus, which we urge you to read carefully.

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Only FEI shareholders of record at the close of business on _____, 2002 are entitled to notice of, and to vote at, the FEI special meeting or any adjournment or postponement of the special meeting.

Your vote is important. To assure that your shares are represented at the FEI special meeting, you are urged to complete, date and sign the enclosed proxy and promptly mail it in the postage-paid envelope provided, whether or not you plan to attend the FEI special meeting in person.

You may revoke your proxy in the manner described in the accompanying joint proxy statement/prospectus at any time before it has been voted at the FEI special meeting. You may vote in person at the FEI special meeting even if you have returned a proxy.

By Order of the Board of Directors,

Bradley J. Thies
Secretary

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about Veeco and FEI from documents that each company has filed with the Securities and Exchange Commission but that have not been included in or delivered with this joint proxy statement/prospectus. For a listing of documents incorporated by reference into this joint proxy statement/prospectus, please see the section titled "Where You Can Find More Information" beginning on page 126.

You may obtain information relating to Veeco, without charge, upon written or oral request to:

Georgeson Shareholder
Communications Inc.
17 State Street, 28th Floor
New York, NY 10004
(212) 805-7000

or

Veeco Instruments Inc.
Investor Relations
100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200, Ext. 1403

You may obtain information relating to FEI, without charge, upon written or oral request to:

Georgeson Shareholder
Communications Inc.
17 State Street, 28th Floor
New York, NY 10004
(212) 805-7000

or

FEI Company
Investor Relations
7451 NW Evergreen Parkway
Hillsboro, OR 97124
(503) 640-7500, Ext. 7527

In order for you to receive timely delivery of the documents before the special meetings of Veeco and FEI, Georgeson, Veeco or FEI should receive your request no later than _____, 2002.

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Appendix F-1	Amendment to Veeco's Amended and Restated Certificate of Incorporation Increasing Number of Authorized Shares of Veeco Common Stock
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Appendix G	Investor Agreement among PBE, FEI and Veeco
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QUESTIONS AND ANSWERS ABOUT THE MERGER

Q:
What transactions are proposed?

A:
Venice Acquisition Corp., a wholly-owned subsidiary of Veeco Instruments Inc., will be merged with and into FEI Company and FEI will become a wholly-owned subsidiary of Veeco after the merger.

For a more complete description of the merger, see the section titled "The Merger" beginning on page 41. Also, the merger agreement is attached to this joint proxy statement/prospectus as [Appendix A](#). You are encouraged to read it carefully.

Q:
Why am I receiving this joint proxy statement/prospectus?

A:
As a Veeco stockholder or an FEI shareholder, you are being asked to vote upon certain measures in order to complete the merger.

Q:
What will FEI shareholders receive in the merger?

A:
As a result of the merger, FEI shareholders will have the right to receive 1.355 shares of Veeco common stock in exchange for each share of FEI common stock held by them.

Instead of any fractional shares of Veeco common stock, FEI shareholders will receive cash based on the closing market price of Veeco common stock on the day before the merger. For example, if the merger is completed, a holder of 100 shares of FEI common stock would receive 135 shares of Veeco common stock and a check representing the value of the remaining 0.5 shares of Veeco common stock.

As a result of the merger, the former FEI shareholders will be entitled to receive a total of approximately 44,000,000 shares of Veeco common stock (and others may be entitled to receive up to approximately 10,000,000 Veeco shares which may be issued in respect of FEI's options and other rights and convertible notes). The number of shares of Veeco common stock issued to the former FEI shareholders will represent approximately 60% of the Veeco common stock outstanding after the merger (not including shares of common stock issuable in respect of options, convertible debt and other convertible securities and rights).

For a more complete description of what FEI shareholders will receive in the merger, see the section titled "The Merger Agreement Merger Consideration" beginning on page 77.

Q:
Will Veeco assume FEI's outstanding stock options and convertible notes in the merger?

A:
Yes. In connection with the merger, Veeco will assume FEI's outstanding stock options and FEI's \$175 million 5.5% Convertible Subordinated Notes due August 15, 2008. After the merger, holders of options to purchase FEI common stock will hold options to purchase shares of Veeco common stock and holders of the FEI notes, which are currently convertible into FEI common stock, will hold notes convertible solely into Veeco common stock. The number of shares issuable and the exercise prices payable upon the exercise of these options, and the number of shares into which the FEI notes are convertible, will be adjusted using the exchange ratio for the merger of 1.355 shares of Veeco common stock for each share of FEI common stock. At June 30, 2002, a total of approximately 10,000,000 Veeco shares would have been issuable under FEI's options and other rights and convertible notes assuming

the merger had occurred on that date.

Q:
What is the value of the merger consideration?

A: The 1.355 exchange ratio is fixed, which means that the number of shares of Veeco common stock to be issued in the merger will not change if the trading prices of the Veeco common stock or the FEI common stock change. The market value of the Veeco common stock that FEI shareholders will receive in the merger, however, will

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increase or decrease as the price of the Veeco common stock increases or decreases.

Veeco's and FEI's stock prices are volatile. We encourage you to obtain current market quotations of Veeco common stock and FEI common stock prior to voting on the merger and the related proposals.

Q:
Are there risks involved in the merger?

A: Yes. In evaluating the merger, you should carefully consider the factors discussed in the section of this joint proxy statement/prospectus titled "Risk Factors" beginning on page 14.

Q:
Does Veeco's board of directors recommend that Veeco stockholders vote in favor of the issuance of Veeco common stock in the merger and the amendments to Veeco's Amended and Restated Certificate of Incorporation?

A: Yes. After careful consideration, Veeco's board of directors unanimously recommends that Veeco stockholders vote in favor of the issuance of Veeco common stock in the merger and also unanimously recommends that Veeco stockholders vote in favor of the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation.

For a complete description of the recommendation of Veeco's board of directors, see the section titled "The Merger Recommendation of Veeco's Board of Directors" on page 50.

Q:
Does FEI's board of directors recommend that FEI shareholders vote in favor of the merger?

A: Yes. After careful consideration, FEI's board of directors unanimously recommends that FEI's shareholders vote in favor of the merger.

For a more complete description of the recommendation of FEI's board of directors, see the section titled "The Merger Recommendation of FEI's Board of Directors" on page 50.

Q:
What do FEI shareholders and Veeco stockholders need to do now?

A: Veeco stockholders and FEI shareholders should read carefully this joint proxy statement/prospectus, including all of the Appendices referred or attached to this joint proxy statement/prospectus. They should consider how the transaction will affect them as a Veeco stockholder or FEI shareholder prior to casting their vote. They may also want to review the documents referenced in this joint proxy statement/prospectus under the section titled "Where You Can Find More Information" on page 126.

Q:
What do I do if I want to change my vote?

A:

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If you want to change your vote, deliver to FEI's Secretary (if you are an FEI shareholder) or to Veeco's Secretary (if you are a Veeco stockholder) a written notice of revocation of your proxy or a later-dated, signed proxy card before the FEI special meeting or the Veeco special meeting, as applicable, or attend the appropriate special meeting and vote in person.

For a more complete description of how to change your vote, see the sections titled "The FEI Special Meeting" on page 39 (if you are an FEI shareholder) and "The Veeco Special Meeting" on page 37 (if you are a Veeco stockholder).

Q: Where will the shares of Veeco common stock issued to FEI shareholders trade after the merger?

A: The Veeco common stock FEI shareholders will receive in the merger will be listed on The Nasdaq National Market under the symbol "VECO."

Q: What have been the dividend policies of Veeco and FEI?

A: Neither Veeco nor FEI has paid cash dividends and they do not expect to do so in the foreseeable future.

Q: What vote is needed to effect the merger?

A: A majority of the votes cast at Veeco's special meeting (including votes cast by proxy) must vote "**FOR**" the proposed issuance of Veeco common stock in the

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merger in order for the proposed issuance to be approved by Veeco's stockholders.

The holders of a majority of the outstanding shares of Veeco common stock entitled to vote at the Veeco special meeting also must vote "**FOR**" the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the number of authorized shares of Veeco's common stock in order for this proposal to be approved by Veeco's stockholders.

Veeco stockholders who owned approximately 12.8% of the outstanding shares of Veeco common stock, as of June 30, 2002, have signed agreements with FEI in which they have agreed to vote "**FOR**" the issuance of Veeco common stock in the merger and "**FOR**" the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the number of authorized shares of Veeco's common stock. These Veeco stockholders also have granted irrevocable proxies to FEI to vote their shares in this manner. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with Veeco Stockholders" on page 96.

The holders of a majority of the shares of FEI common stock entitled to vote must vote "**FOR**" the merger at the FEI special meeting in order for the merger to be approved by FEI's shareholders.

FEI shareholders who owned approximately 27.4% of the outstanding shares of FEI common stock, as of June 30, 2002, have signed agreements with Veeco in which they agreed to vote "**FOR**" the merger. These FEI shareholders also have granted irrevocable proxies to Veeco to vote their shares in this manner. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with FEI Shareholders" beginning on page 97.

Q: What vote is needed for the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc.?

A: The holders of a majority of the outstanding shares of Veeco common stock entitled to vote at the Veeco special meeting must vote "**FOR**" the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation in order for this proposal to be approved by Veeco's stockholders.

Q: What happens if an FEI shareholder votes "AGAINST" the merger but a majority of the FEI shareholders vote "FOR" the merger?

A: The merger will be approved, and each FEI shareholder will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock such shareholder holds when the merger is completed.

Q: If my shares are held in "street name" by my broker, will my broker vote my shares for me?

A: Your broker will vote your shares only if you provide instructions on how to vote by following the information provided to you by your broker.

Q: Should FEI shareholders send in their stock certificates now?

A: No. After the merger is completed, FEI shareholders will receive a letter of transmittal and other documentation from the exchange agent in the merger, together with written instructions for exchanging their FEI stock certificates for Veeco FEI stock certificates.

Q: When do you expect the merger to be completed?

A: We are working toward completing the merger as quickly as possible and hope to complete the merger shortly after the FEI special meeting and the Veeco special meeting.

Q: Who should I call with questions?

A: Veeco stockholders should call either Georgeson Shareholder

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Communications Inc. at (212) 805-7000 or Veeco Investor Relations at (516) 677-0200, Ext. 1403 with any questions about the merger.

FEI shareholders should call either Georgeson Shareholder Communications Inc. at (212) 805-7000 or FEI Investor Relations at (503) 640-7500, Ext. 7527 with any questions about the merger.

You also may obtain additional information about FEI or Veeco from documents filed with the Securities and Exchange Commission by following the instructions in the section titled "Where You Can Find More Information" on page 126.

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JOINT PROXY STATEMENT/PROSPECTUS SUMMARY

For your convenience, we have provided a brief summary of certain information contained in this joint proxy statement/prospectus. This summary highlights selected information found in greater detail elsewhere in this joint proxy statement/prospectus. This summary does not contain all of the information that is important to you. To understand the proposed merger fully and for a more complete description of the legal terms of the proposed merger, we urge you to carefully read this entire joint proxy statement/prospectus (including the attached Appendices) and the documents to which we have referred you before you decide how to vote. See the section titled "Where You Can Find More Information" on page 126.

The Companies

Veeco Instruments Inc.
100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200

Veeco designs, manufactures, markets and services a broad line of equipment primarily used by manufacturers in the data storage, telecommunications/wireless, semiconductor and research industries. Veeco's broad line of products featuring leading edge technology allows customers to improve time to market of next generation products. Veeco's metrology, or measurement, equipment is used to provide critical surface measurements on semiconductor devices, thin film magnetic heads and disks used in hard drives and in telecommunications/wireless and research applications. This metrology equipment allows customers to monitor their products throughout the manufacturing process in order to improve yields, reduce costs and improve product quality. Veeco's process equipment products precisely deposit or remove various materials in the manufacturing of advanced thin film magnetic heads for the data storage industry and telecommunications/wireless components. The ability of Veeco's products to precisely deposit thin films, and/or etch sub-micron patterns and make critical surface measurements enables manufacturers to improve yields and quality in the fabrication of advanced microelectronic devices, such as passive and active telecommunications components, wireless devices, thin film magnetic heads and semiconductor devices. Veeco serves its worldwide customers through its global sales and service organization located throughout the United States, Europe, Japan and Asia Pacific.

Venice Acquisition Corp.
c/o Veeco Instruments Inc.

Venice Acquisition Corp. is an Oregon corporation and a wholly-owned subsidiary of Veeco. Venice Acquisition Corp. was formed for the purpose of effecting the merger with FEI pursuant to the merger agreement.

FEI Company
7451 NW Evergreen Parkway
Hillsboro, OR 97124
(503) 640-7500

FEI is a leading supplier of structural process management solutions to the semiconductor, data storage, structural biology, and industry and institute markets. FEI's range of DualBeam and single column focused ion and electron microscope products enables manufactures and researchers to keep pace with technology shifts and develop next generation technologies and products. FEI's products allow advanced three dimensional metrology, device editing, trimming and structural analysis for management of sub-micron structures, including those found in integrated circuits, high density magnetic storage devices, industrial materials, chemical compounds, biological structures and genomes. FEI sells its products worldwide to a geographically diverse base of customers in the semiconductor, data storage and industry and institute markets.

Philips Business Electronics International B.V.
c/o Philips Electronics North America Corporation
1251 Avenue of the Americas
New York, NY 10022
(212) 536-0633

Philips Business Electronics International B.V., or PBE, is a wholly-owned subsidiary of Koninklijke Philips Electronics N.V. and is FEI's largest shareholder, holding approximately 25% of FEI's outstanding shares of common stock. In this joint proxy statement/prospectus we use Philips to refer to Koninklijke Philips Electronics N.V. and its affiliates, including PBE, and PBE is used only with respect to the Philips entity that directly holds shares of FEI's common stock.

Description of the Transaction

Pursuant to an Agreement and Plan of Merger, dated July 11, 2002, among Veeco Instruments Inc., Venice Acquisition Corp. and FEI Company, Venice Acquisition Corp., shall, subject to the terms and satisfaction of the conditions set forth in the merger agreement, be merged with and into FEI, and FEI shall become a wholly-owned subsidiary of Veeco. As a result of the merger, FEI shareholders will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock held by them.

What FEI Securityholders Will Receive in the Merger

Holders of Shares of FEI Common Stock

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If the merger occurs, each FEI shareholder will have the right to receive 1.355 shares of Veeco common stock for each share of FEI common stock they own before the merger. Veeco will not issue fractional shares of Veeco common stock in exchange for shares of FEI common stock in the merger. Instead, Veeco will issue an appropriate amount of cash in lieu of any fractional shares. This cash amount will be based on the closing trading price of Veeco common stock on the trading day before the closing of the merger.

FEI Options

Each option to purchase a share of FEI common stock will be assumed by Veeco upon completion of the merger and will be converted into an option to purchase 1.355 shares of Veeco common stock at an exercise price equal to the current exercise price divided by 1.355. Veeco will assume each option to purchase shares of FEI common stock in accordance with the terms of the stock option plan or other arrangement under which the option was issued, but converted as described above into an option to purchase shares of Veeco common stock.

Convertible Debt

FEI's \$175 million 5.5% Convertible Subordinated Notes due August 15, 2008, shall be assumed by Veeco and become convertible solely into such number of shares of Veeco common stock that would have been issued if the FEI notes had been converted into FEI common stock immediately prior to the closing of the merger.

Stock Certificates

FEI shareholders should **NOT** send in their FEI stock certificates until after the merger and until they receive a letter of transmittal and other information and instructions on how to exchange the certificates. For information on exchanging shares of FEI common stock for shares of Veeco common stock after the merger, see the section titled "The Merger Agreement Merger Consideration Exchange of Certificates" on page 77.

Reasons for the Merger

Veeco's and FEI's Reasons for the Merger

The Veeco and FEI boards of directors approved the merger agreement and the transactions contemplated by the merger agreement because they determined that the combined company would have the potential to realize a stronger competitive position and improve long-term operating and financial results. The boards of directors considered many factors that they believed could contribute to the long-term success of the combined company including, among other things, the potential that the combined company would have:

Enhanced ability to provide more comprehensive product solutions and expanded product lines to its customers;

Decreased dependency on major customers;

Increased critical mass and global presence to better serve customers' needs;

Expanded research and development efforts;

Enhanced purchasing power; and

A stronger management team to position the combined company to take advantage of future growth opportunities.

The Veeco and FEI boards of directors considered a number of other factors as well as potential risks and disadvantages of the merger.

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You should carefully review the sections titled "The Merger Veeco's Reasons for the Merger," beginning on page 45, and "The Merger FEI's Reasons for the Merger," beginning on page 48, to learn more about Veeco's and FEI's reasons for entering into the merger agreement.

Recommendation of Veeco's Board of Directors

Veeco's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders, and has determined that the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation are advisable. After careful consideration, Veeco's board of directors unanimously recommends that Veeco's stockholders vote "FOR" approval of the issuance of Veeco common stock to FEI shareholders in the merger. Veeco's board of directors also unanimously recommends that Veeco's stockholders vote "FOR" approval of the amendments to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc. and to increase the number of authorized shares of Veeco common stock from 60,000,000 to 175,000,000 shares.

Recommendation of FEI's Board of Directors

FEI's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated by the merger agreement and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its shareholders. After careful consideration, FEI's board of directors unanimously recommends that FEI shareholders vote "FOR" the approval of the merger.

Opinion of Veeco's Financial Advisor

In connection with the merger, the Veeco board of directors received a written opinion from Salomon Smith Barney Inc., Veeco's financial advisor, dated as of July 11, 2002, to the effect that as of such date and based on and subject to the matters described in its opinion, the exchange ratio was fair, from a financial point of view, to Veeco. The full text of Salomon Smith Barney's written opinion, dated July 11, 2002, is attached to this joint proxy statement/prospectus as Appendix E. We encourage you to read this opinion carefully in its entirety for a description of the assumptions made, procedures followed, matters considered and limitations on the review undertaken. **Salomon Smith Barney's opinion is addressed to the Veeco board of directors and does not constitute a recommendation to any stockholder with respect to any matters relating to the proposed merger.** For more information, see the section titled "The Merger Opinion of Veeco's Financial Advisor" beginning on page 50.

Opinion of FEI's Financial Advisor

In deciding to approve the merger, the FEI board of directors considered, among other things, the opinion of Credit Suisse First Boston, FEI's financial advisor, dated as of July 11, 2002, to the effect that as of such date and based upon and subject to the various considerations set forth in the opinion, the exchange ratio in the merger was fair, from a financial point of view, to holders of FEI common stock, other than PBE and its affiliates. The full text of the written opinion of Credit Suisse First Boston, dated as of July 11, 2002, which sets forth assumptions made, matters considered and limitations on the review undertaken in connection with the opinion, is attached as Appendix D. You are urged to read this opinion carefully in its entirety. **Credit Suisse First Boston's opinion is directed to the FEI board of directors, addresses only the fairness, from a financial point of view, of the merger exchange ratio to holders of FEI common stock, other than PBE and its affiliates, and does not constitute a recommendation to any FEI shareholder as to how such FEI shareholder should vote or act on matter relating to the merger.** For more information,

see the section titled "The Merger Opinion of FEI's Financial Advisor" beginning on page 55.

Voting and Solicitation

Veeco

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At the Veeco special meeting, each Veeco stockholder of record as of _____, 2002 is entitled to one vote for each share of Veeco common stock such Veeco stockholder holds. Veeco's bylaws provide that the holders of 50% of all of the Veeco common stock entitled to vote, whether present in person or represented by proxy, shall constitute a quorum for the transaction of business at the Veeco special meeting. Under applicable rules of The Nasdaq National Market, if a quorum is present, the affirmative vote of a majority of the votes cast, whether in person or by proxy, at Veeco's special meeting, is required to approve the issuance of Veeco common stock in the merger. Under the Delaware General Corporation Law, the affirmative vote of the holders of a majority of the outstanding Veeco common stock entitled to vote, whether in person or by proxy, at Veeco's special meeting is required to approve the amendments to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc. and to increase the number of authorized shares of Veeco's common stock from 60,000,000 to 175,000,000 40,000,000 shares.

FEI

At the FEI special meeting, each FEI shareholder of record as of _____, 2002 is entitled to one vote for each share of FEI common stock such FEI shareholder holds. FEI's bylaws provide that the holders of a majority of all of the FEI common stock entitled to vote, whether present in person or represented by proxy, shall constitute a quorum for the transaction of business at the FEI special meeting. Under the Oregon Business Corporation Act, the holders of a majority of the shares of FEI common stock entitled to vote must vote "**FOR**" the approval of the merger in order for the merger to be approved by FEI's shareholders.

Share Ownership of Management

Veeco

As of the Veeco record date, the directors and executive officers of Veeco, as a group, held (together with their affiliates) approximately % of the outstanding shares of Veeco common stock.

FEI

As of the FEI record date, the directors and executive officers of FEI, as a group, held (together with their affiliates) approximately % of the outstanding shares of FEI common stock.

Stockholder Voting Arrangements

Voting Arrangements With Veeco Stockholders

Certain Veeco stockholders that own an aggregate of approximately 12.8% of the outstanding shares of Veeco common stock, as of June 30, 2002, have entered into voting agreements with FEI. These Veeco stockholders include all of Veeco's directors and executive officers and Chorus, L.P., Veeco's largest stockholder. Pursuant to these voting agreements, they have agreed to vote all of their shares of Veeco common stock:

In favor of the approval of the issuance of Veeco common stock to FEI shareholders in the merger;

In favor of the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock; and

Against proposals or transactions that would in any manner prevent or nullify the merger, the merger agreement or any related transactions.

These Veeco stockholders, however, are permitted to vote their shares in favor of a Superior Veeco Proposal or related Veeco Acquisition Transaction, as such terms are defined on page 85. These Veeco stockholders also have granted irrevocable proxies to FEI to allow FEI to vote all of their shares of Veeco

common stock in favor of the issuance of Veeco common stock in the merger.

The voting agreements between FEI and these Veeco stockholders, and the related irrevocable proxies granted to FEI by each such Veeco stockholder are included as [Appendix C-1](#) and [Appendix C-2](#) to this joint proxy statement/prospectus. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with Veeco Stockholders" on page 96.

Voting Arrangements With FEI Shareholders

Certain FEI shareholders that own an aggregate of approximately 27.4% of the outstanding shares of FEI common stock, as of June 30, 2002, have entered into voting agreements with Veeco. These FEI shareholders include all of FEI's directors and executive officers and PBE, FEI's largest shareholder. Pursuant to these voting agreements, they have agreed to vote all of their shares of FEI common stock:

In favor of the approval of the merger; and

Against proposals or transactions that would in any manner prevent or nullify the merger or the merger agreement or any related transactions.

These FEI shareholders, however, are permitted to vote their shares in favor of a Superior FEI Proposal or related FEI Acquisition Transaction, as such terms are defined on page 88 and 87, respectively. These FEI shareholders also have granted irrevocable proxies to Veeco to allow Veeco to vote all of their shares of FEI common stock in favor of the merger.

The voting agreements between Veeco and these FEI shareholders, and the related irrevocable proxies, granted to Veeco by each such FEI shareholder are included as [Appendix B-1](#) and [Appendix B-2](#) to this joint proxy statement/prospectus. For more information on these voting arrangements, see the section titled "Other Agreements Voting Arrangements with FEI Shareholders" beginning on page 96.

Interests of Certain Persons in the Merger

In considering the recommendation of the FEI board of directors that FEI shareholders vote to approve the merger and the recommendation of the Veeco board of directors that Veeco stockholders vote to approve the issuance of Veeco common stock in the merger and the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation, FEI shareholders and Veeco stockholders should note that certain directors and officers of Veeco and FEI have interests in the merger that are different from, or in addition to, their interests as stockholders/shareholders. These interests relate to the composition of the Veeco FEI board of directors and the management of Veeco FEI following the merger, employment agreements, potential severance payments, potential accelerated vesting of stock options, indemnification rights and certain rights granted to PBE, FEI's largest shareholder, under the investor agreement. For more information, see the section titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 69.

Board of Directors and Management Following the Merger

Veeco and FEI have agreed that immediately following the closing of the merger, the Veeco FEI board of directors will consist of thirteen directors. Of these thirteen directors:

Seven will be nominated by Veeco from the current members of Veeco's board of directors and will include Edward H. Braun, Veeco's current Chairman, Chief Executive Officer and President;

Five will be nominated by FEI from the current members of FEI's board of directors and will include Vahé A. Sarkissian, FEI's current Chairman, Chief Executive Officer and President; and

One will be nominated by PBE, FEI's largest shareholder.

Veeco's bylaws provide for a staggered board of directors, composed of three separate classes: Class I, Class II and Class III. Veeco, FEI and PBE have agreed that two Veeco nominees and

two FEI nominees will serve as Class III directors for terms expiring at Veeco FEI's 2003 annual meeting of stockholders, two Veeco nominees and two FEI nominees will serve as Class I directors for terms expiring at Veeco FEI's 2004 annual meeting of stockholders and three Veeco nominees, one FEI nominee and one PBE nominee will serve as Class II directors for terms expiring at Veeco FEI's 2005 annual meeting of stockholders. For more information on this arrangement and for more information regarding PBE's right to appoint a person to serve on the Veeco FEI board of directors, see the sections titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 69, "The Merger Board of Directors and Management of Veeco FEI After the Merger" beginning on page 66 and "Other Agreements Investor Agreement with PBE" beginning on page 97.

Description of Merger Agreement

Terms of the Merger

For information on the terms of the merger in addition to the information contained in this summary, see the sections titled "The Merger" beginning on page 41 and "The Merger Agreement" beginning on page 77.

The merger agreement is attached as [Appendix A](#) to this joint proxy statement/prospectus and is incorporated by reference herein. Veeco and FEI encourage you to read the merger agreement carefully. It is the legal document governing the merger.

Representations, Warranties and Covenants

In the merger agreement, Veeco and FEI each have made representations and warranties to each other concerning their respective businesses. Each party also has made covenants to the other concerning its activities between the signing of the merger agreement and closing of the merger, the actions it will take to enable the completion of the merger, and other matters.

For more information on these representations, warranties and covenants, see the sections titled "The Merger Agreement Representations and Warranties" and "The Merger Agreement Certain Covenants" on pages 78 and 79, respectively.

Conditions to the Merger

Veeco and Venice Acquisition Corp.

Veeco and Venice Acquisition Corp. will complete the merger only if a number of conditions are satisfied or are waived by Veeco and Venice Acquisition Corp. These include:

FEI's representations and warranties set forth in the merger agreement are true and correct as of the closing date of the merger except where the failure to be true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect, as such term is defined on page 89, on FEI;

FEI performs certain covenants and obligations contained in the merger agreement in all material respects;

FEI's shareholders approve the merger;

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Veeco's stockholders approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock;

There has been no Material Adverse Effect with respect to FEI;

The applicable antitrust waiting periods shall have expired or been terminated;

The Form S-4 registration statement of which this joint proxy statement/prospectus forms a part shall have become effective and shall remain effective;

There are no pending legal proceedings by any governmental authority, or injunctions or final judgments entered before any court or governmental authority, that seek to or have the effect of restraining or prohibiting the consummation of the transactions contemplated by the merger agreement;

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No governmental authority shall have enacted any rule or regulation making the merger illegal or prohibiting the merger; and

The shares of Veeco common stock to be issued in connection with the merger shall have been approved for listing on The Nasdaq National Market.

For more detailed information concerning the conditions to Veeco's and Venice Acquisition Corp.'s obligations to complete the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 88.

FEI

FEI will complete the merger only if certain conditions are satisfied or are waived by FEI. These include:

Veeco's and Venice Acquisition Corp.'s representations and warranties set forth in the merger agreement are true and correct as of the closing date of the merger except where the failure to be true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on Veeco;

Veeco and Venice Acquisition Corp. perform certain covenants and obligations contained in the merger agreement in all material respects;

FEI's shareholders approve the merger;

Veeco's stockholders approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock;

There has been no Material Adverse Effect with respect to Veeco;

All applicable antitrust waiting periods shall have expired or been terminated;

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The Form S-4 registration statement of which this joint proxy statement/prospectus forms a part shall have become effective and shall remain effective;

There are no pending legal proceedings by any governmental authority, or injunctions or final judgments entered before any court or governmental authority, that seek to or have the effect of restraining or prohibiting the consummation of the transactions contemplated by the merger agreement;

No governmental authority shall have enacted any rule or regulation making the merger illegal or prohibiting the merger; and

The shares of Veeco common stock to be issued in connection with the merger shall have been approved for listing on The Nasdaq National Market.

For more detailed information concerning the conditions to FEI's obligation to complete the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 88.

No Solicitation

Veeco

Veeco has agreed not to directly or indirectly solicit, induce, encourage, initiate or facilitate a Veeco Acquisition Proposal, as such term is defined on page 85. Veeco has also agreed not to engage in negotiations or discussions with respect to any Veeco Acquisition Proposal, provide any information regarding Veeco or its subsidiaries, enter into a contract or letter of intent with respect to a Veeco Acquisition Proposal or approve, recommend or endorse a Veeco Acquisition Proposal. However, if Veeco receives a bona fide, unsolicited, written Veeco Acquisition Proposal that Veeco's board of directors reasonably determines in good faith would be reasonably likely to result in a Superior Veeco Proposal, as such term is defined on page 85, then Veeco may engage in discussions and take other actions to become informed about such Veeco Acquisition Proposal in certain circumstances.

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For more information regarding Veeco's agreements with FEI relating to Veeco Acquisition Proposals, see the section titled "The Merger Agreement No Solicitation" beginning on page 84.

FEI

FEI has agreed not to directly or indirectly solicit, induce, encourage, initiate or facilitate an FEI Acquisition Proposal, as such term is defined on page 86. FEI has also agreed not to engage in negotiations or discussions with respect to any FEI Acquisition Proposal, provide any information regarding FEI or its subsidiaries, enter into a contract or letter of intent with respect to an FEI Acquisition Proposal or approve, recommend or endorse an FEI Acquisition Proposal. However, if FEI receives a bona fide, unsolicited, written FEI Acquisition Proposal that FEI's board of directors reasonably determines in good faith would be reasonably likely to result in a Superior FEI Proposal, as that term is defined on page 87, then FEI may engage in discussions and take other actions to become informed about such FEI Acquisition Proposal in certain circumstances.

For more information regarding FEI's agreements with Veeco relating to FEI Acquisition Proposals, see the section titled "The Merger Agreement No Solicitation" beginning on page 84.

Termination of the Merger Agreement

Mutual Termination

Either Veeco or FEI may terminate the merger agreement at any time prior to the closing of the merger if:

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Veeco and FEI mutually consent;

The merger is not completed by December 31, 2002, provided, that, in limited circumstances, this date may be extended to January 30, 2003;

A court or other governmental authority issues a final and nonappealable order, decree or ruling or takes other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the merger;

Veeco's stockholders do not approve the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock; or

FEI's shareholders do not approve the merger.

Termination by Veeco

Veeco and Venice Acquisition Corp. may terminate the merger agreement if:

At any time prior to the closing of the merger, FEI materially breaches its representations, warranties or covenants under the merger agreement and does not cure such breach within 30 days after notice thereof; or

At any time prior to the approval by Veeco's stockholders of the issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock, an FEI Triggering Event, as that term is defined on page 91, occurs.

For a more detailed discussion of the circumstances in which the merger agreement can be terminated, see the section titled "The Merger Agreement Termination of the Merger Agreement" beginning on page 90.

Termination by FEI

FEI may terminate the merger agreement if:

At any time prior to the closing of the merger, Veeco materially breaches its representations, warranties or covenants under the merger agreement and does not cure such breach within 30 days after notice thereof; or

At any time prior to the approval of the merger by FEI's shareholders, a Veeco

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Triggering Event, as that term is defined on page 92, occurs.

Expenses and Termination Fees

Payment of Expenses

FEI and Veeco will each pay their own fees and expenses in connection with the merger, whether or not the merger is completed, except that FEI and Veeco will share equally filing fees and printing expenses in connection with this joint proxy statement/prospectus and the fees and expenses involved in connection with all required antitrust filings.

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Veeco will be required to pay up to \$5 million of FEI's fees and expenses in connection with the merger in the following circumstances:

In the event that the merger agreement is terminated by FEI or Veeco because Veeco stockholders do not approve the issuance of Veeco common stock to FEI shareholders in the merger or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting, and at or prior to the time of such termination a Veeco Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn; or

If Veeco breaches its representations, warranties or covenants in a manner that gives FEI the right to terminate the merger agreement and FEI then terminates the merger agreement.

FEI will be required to pay up to \$5 million of Veeco's fees and expenses in connection with the merger in the following circumstances:

In the event that the merger agreement is terminated by FEI or Veeco because FEI shareholders do not approve the merger at the FEI special meeting, and at or prior to the time of such termination an FEI Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn; or

If FEI breaches its representations, warranties or covenants in a manner that gives Veeco the right to terminate the merger agreement and Veeco then terminates the merger agreement.

Termination Fees

Veeco has agreed to pay FEI a termination fee of \$30 million in the following circumstances:

Veeco or FEI terminates the merger agreement because Veeco's stockholders do not approve the issuance of Veeco common stock to FEI's shareholders or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting at a time when a Veeco Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or made and not unconditionally withdrawn and within 12 months following the termination either (1) a Veeco Acquisition Transaction (as such term is defined on page 85, except that all references to "15%" shall read "40%") is consummated or (2) Veeco enters into a letter of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following termination of the merger agreement; or

FEI terminates the merger agreement because a Veeco Triggering Event has occurred; *provided, however*, that if the merger agreement is terminated by FEI because of a breach by Veeco of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the termination of the merger agreement, either (1) a Veeco Acquisition Transaction (as such term is defined on page 85, except that all references to "15%" therein shall be deemed to read "40%") is consummated or (2) Veeco enters into

a letter of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

For more information about expenses and termination fees, see the section titled "The Merger Agreement Fees and Expenses" beginning on page 93.

FEI has agreed to pay Veeco a termination fee of \$30 million in the following circumstances:

Veeco or FEI terminates the merger agreement because FEI's shareholders do not approve the merger at the FEI special meeting at a time when an FEI Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or

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made and not unconditionally withdrawn and within 12 months following the termination, either (1) an FEI Acquisition Transaction (as such term is defined on page 86, except that all references to "15%" shall read "40%") is consummated or (2) FEI enters into a letter of intent or contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following termination of the merger agreement; or

Veeco terminates the merger agreement because an FEI Triggering Event has occurred; *provided, however*, that if the merger agreement is terminated by Veeco because of a breach by FEI of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the termination of the merger agreement, either (1) an FEI Acquisition Transaction (as such term is defined on page 86, except that all references to "15%" therein shall be deemed to read "40%") is consummated, or (2) FEI enters into a letter of intent or contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

When the Merger Will Occur

Unless Veeco and FEI otherwise agree, the merger will take place no later than the second business day after all of the conditions to closing of the merger contained in the merger agreement have been satisfied or waived. Assuming that both FEI and Veeco satisfy or waive all of the conditions in the merger agreement, we anticipate that the merger will occur shortly after the FEI special meeting and the Veeco special meeting. For more information on regulatory matters and other conditions to the closing of the merger, see the section titled "The Merger Agreement Conditions to the Merger" beginning on page 88.

Investor Agreement with PBE

In connection with the merger, Veeco, FEI and PBE entered into an investor agreement, dated as of July 11, 2002. This investor agreement provides for, among other things, the following:

Registration rights for the shares of Veeco FEI common stock that PBE will receive in the merger;

The right of PBE to designate one director to serve on Veeco FEI's board of directors for a certain period of time;

"Standstill" restrictions prohibiting PBE and its affiliates from acquiring more than a specified percentage of outstanding Veeco FEI common stock or taking certain other actions; and

Veeco's assumption of FEI's obligation to issue, at PBE's option, additional common stock upon the exercise of certain outstanding options to purchase FEI common stock.

The investor agreement is included as [Appendix G](#) to this joint proxy statement/prospectus. For a more detailed description of the terms and conditions of the investor agreement, see the section titled "Other Agreements Investor Agreement with PBE" beginning on page 97.

Material U.S. Federal Income Tax Consequences of the Merger

The receipt of shares of Veeco common stock in the merger generally will be tax-free to FEI shareholders for U.S. federal income tax purposes, except for tax on gain resulting from the receipt of cash in lieu of fractional shares.

Tax matters are very complicated, and the tax consequences of the merger to each FEI shareholder will depend on the facts of such shareholder's own situation. FEI shareholders are urged to consult their own tax advisors as to the specific tax consequences of the

merger to them, including the applicable federal, state, local and foreign tax consequences.

For more information, see the section titled "The Merger Material U.S. Federal Income Tax Consequences of the Merger" beginning on page 74.

No Appraisal/Dissenters' Rights

In connection with the merger, neither Veeco stockholders nor FEI shareholders are entitled to dissent from the merger and request an appraisal of the value of their shares under Delaware or Oregon law. For more information see the section titled "The Merger Agreement Merger Consideration No Appraisal/Dissenters' Rights" beginning on page 78.

Accounting Treatment of the Merger

The merger will be accounted for using the purchase method for financial reporting and accounting purposes. After the merger, FEI's post-merger results of operations will be included in the consolidated financial statements of Veeco. For more information, see the section titled "The Merger Accounting Treatment of the Merger" beginning on page 75.

Restrictions on Selling Veeco Common Stock Received in the Merger

All shares of Veeco common stock received by FEI shareholders in connection with the merger will be freely transferable, unless the holder is an affiliate of FEI or Veeco. For a more complete description of transfer restrictions that apply to these affiliates, see the section titled "The Merger Resale of Veeco Common Stock Issued in the Merger" beginning on page 73.

Ownership of Veeco FEI Following the Merger

Based upon the number of shares of FEI common stock outstanding on the FEI record date, Veeco expects to issue a total of approximately 44,000,000 shares of Veeco common stock to FEI shareholders in connection with the merger and may be required to issue additional shares of Veeco common stock in the future upon exercise of FEI stock options and other rights and conversion of the FEI notes assumed by Veeco in the merger described below. Based upon the number of shares of Veeco common stock outstanding on the Veeco record date, the former holders of FEI common stock will hold approximately 60% of the total number of issued and outstanding shares of Veeco common stock after completion of the merger (not including shares issuable in respect of options, convertible debt and other convertible securities and rights).

Based upon the number of outstanding options to purchase shares of FEI common stock as of June 30, 2002, those FEI options will become options to purchase an aggregate of approximately 4,174,461 shares of Veeco common stock following the merger.

Based on the number of shares of FEI common stock issuable upon conversion of the FEI notes as of June 30, 2002, the FEI notes will become convertible into an aggregate of approximately 4,788,470 shares of Veeco common stock following the merger.

Markets and Market Prices

Veeco common stock is listed on The Nasdaq National Market under the symbol "VECO." FEI common stock is listed on The Nasdaq National Market under the symbol "FEIC." After the completion of the merger, FEI common stock will cease to be listed on The Nasdaq National Market and Veeco FEI common stock will trade on The Nasdaq National Market under the symbol "VECO."

The following table sets forth the (1) closing sale price per share of Veeco common stock as

reported on The Nasdaq National Market, (2) closing sale price per share of FEI common stock as reported on The Nasdaq National Market and (3) equivalent per share price (as explained below) of FEI common stock in each case, on July 11, 2002, the last trading day before Veeco and FEI announced that they had signed the merger agreement, and on _____, 2002, the most recent practicable date before the date of this joint

proxy statement/prospectus.

	Veeco Share Price	FEI Share Price	Equivalent FEI Per Share Price(1)
July 11, 2002	\$ 22.49	\$ 22.06	\$ 30.47
2002	\$	\$	\$

(1)

The equivalent FEI per share price represents 1.355 times the price of one Veeco share.

Veeco and FEI cannot guarantee or predict the actual trading prices of Veeco common stock and FEI common stock before or at the time the merger is completed. The actual trading prices of FEI common stock and Veeco common stock have historically been volatile. For more information on this risk, see "Risk Factors Risks Related to the Merger and Receipt of Veeco Stock" on page 14.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus and the documents incorporated by reference herein contain certain forward-looking statements about Veeco, FEI and the combined company within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements involve risks and uncertainties. Forward-looking statements include, without limitation, expectations about market conditions or about market acceptance, expectations of future sales or gross profits, possible or assumed future results of operations of Veeco and FEI and the integration of the merged companies and the statements included in the sections titled "The Merger Veeco's Reasons for the Merger" and "The Merger FEI's Reasons for the Merger". Forward-looking statements relate to expectations concerning matters that are not historical facts. Words or phrases such as "will likely result," "expect," "will continue," "anticipate," "believe," "estimate," "intend," "plan," "project" or similar expressions are intended to identify forward-looking statements. Actual results may vary materially from those expressed in such forward-looking statements as a result of various factors, including:

The fact that these forward-looking statements are based on information of a preliminary nature which may be subject to further and continuing review and adjustment;

The risk that the merger will not be completed because of failure to meet one or more conditions to the merger set forth in the merger agreement;

The risk of a significant delay in the expected completion of, and unexpected consequences resulting from, the merger;

The risk that governmental authorities may impose unfavorable terms as a condition of the merger;

The risk of favorable customer contracts expiring or being renewed on less attractive terms;

Seasonality in the scientific research sector;

The cyclical nature of the semiconductor, data storage, telecommunications/wireless and scientific research industries;

Risks associated with the acceptance of new products by individual customers and by the marketplace;

The financial condition of FEI's and Veeco's customers;

Changes in foreign currency exchange rates;

The inability of the parties to recognize the anticipated benefits of the merger; and

Matters set forth in this joint proxy statement/prospectus generally.

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Although each of Veeco and FEI believes that the forward-looking statements contained in this joint proxy statement/prospectus are reasonable, neither can assure you that the forward-looking statements will prove to be correct. Factors which could cause actual results to differ also include those set forth in the section titled "Risk Factors" beginning on page 14 and elsewhere throughout this joint proxy statement/prospectus and the documents incorporated by reference herein.

Each of Veeco and FEI cautions you not to put undue reliance on any forward-looking statement contained in this joint proxy statement/prospectus and the documents incorporated by reference herein. The risk factors and cautionary statements contained or referred to in this section should be considered in connection with any subsequent written or oral forward-looking statements that Veeco, FEI, or persons acting on either company's behalf, may issue. Except as otherwise required by federal securities laws, we have no intention or obligation to update or revise any forward-looking statements after this document is distributed to reflect the occurrence of unanticipated events or to reflect events or circumstances after the date on which such statement is made.

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RISK FACTORS

Veeco stockholders and FEI shareholders should consider the following factors, in addition to other risk factors of the two companies incorporated by reference into this joint proxy statement/prospectus and the other information contained in this document, in deciding whether to vote for approval of the merger, in the case of FEI shareholders, or for approval of the issuance of Veeco common stock in the merger and the amendments to Veeco's Amended and Restated Certificate of Incorporation, in the case of Veeco stockholders. See the section titled "Where You Can Find More Information" beginning on page 126 for where you can find additional risk factors incorporated by reference herein.

Risks Related to the Merger and Receipt of Veeco Stock

Because FEI shareholders will receive a fixed ratio of 1.355 shares of Veeco common stock in exchange for each share of FEI common stock regardless of changes in the relative market values of each stock, the dollar value of the consideration received by FEI shareholders may be lower on the day of closing than it was on the day of the public announcement of the merger or the day this joint proxy statement/prospectus was filed.

Upon completion of the merger, each share of FEI common stock will be converted into the right to receive 1.355 shares of Veeco common stock. The market values of Veeco common stock and FEI common stock have varied since Veeco and FEI entered into the merger agreement and may continue to vary in the future due to, among other factors:

Changes in the business, operating results or prospects of Veeco or FEI;

Actual or anticipated variations in quarterly results of operations;

Market assessments of the likelihood that the merger will be completed;

The timing of the completion of the merger;

Sales of Veeco common stock or FEI common stock;

Additions or departures of key personnel of either company;

Announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

Announcements of technological innovations or the discontinuation of products or services by Veeco, FEI, their competitors or their customers;

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Changes in market valuations of competitors;

The prospects of post-merger operations;

Regulatory considerations; and

General market and economic conditions.

The dollar value of Veeco common stock that FEI shareholders will receive upon completion of the merger will depend on the market value of Veeco common stock at the closing of the merger, which may be different from, and lower than, the closing price of Veeco common stock on the last full trading day preceding the date of the public announcement of the merger agreement, the last full trading day prior to the date of this joint proxy statement/prospectus or the date(s) of the special meetings. Moreover, the closing of the merger may occur some time after stockholder approval has been obtained. There will be no adjustment to the exchange ratio (except for adjustments to reflect the effect of any stock split or other recapitalization of Veeco common stock or FEI common stock), and the parties do not have a right to terminate the merger agreement based upon changes in the market price of either Veeco common stock or FEI common stock.

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Veeco's stock price is volatile and could decline in the future.

The stock market in general and the market for shares of technology companies in particular have experienced extreme stock price fluctuations. In some cases, these fluctuations have been unrelated to the operating performance of the affected companies. Many companies in the data storage, semiconductor and related equipment industries, including Veeco, have experienced dramatic volatility in the market prices of their common stock. Veeco believes that a number of factors, both within and outside Veeco's control, could cause the price of Veeco common stock to fluctuate, perhaps substantially. These factors include:

Announcements of developments related to Veeco's business or Veeco's competitors' or customers' businesses;

Fluctuations in Veeco's financial results;

General conditions or developments in the semiconductor, data storage, telecommunications/wireless and scientific research industries;

Potential sales of Veeco common stock into the marketplace by Veeco or its stockholders;

Announcements of technological innovations or new or enhanced products by Veeco or its competitors or customers;

A shortfall in revenue, gross margin, earnings or other financial results or changes in research analysts' expectations; and

The limited number of shares of Veeco common stock traded on a daily basis.

Veeco cannot be certain that the market price of Veeco common stock will not experience significant fluctuations in the future, including fluctuations that are material, adverse and unrelated to Veeco's performance.

The combined company may not realize certain potential benefits from the merger because of integration and other challenges, which could negatively impact its results of operations.

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Veeco and FEI entered into the merger agreement with the expectation that the merger will result in benefits to the combined company. To realize benefits or synergies from the merger, the combined company will face the following post-merger challenges, among others:

Diversion of management's attention to the combining of operations;

Combining product and service offerings effectively and efficiently;

Retaining and assimilating the management, employees and sales forces of each company;

Consolidating manufacturing operations;

Coordinating sales and marketing efforts to effectively communicate the capabilities of the combined company;

Retaining existing customers, strategic partners and suppliers of each company;

Coordinating and rationalizing research and development activities to enhance introduction of new products and technologies with reduced cost;

Coordinating and combining overseas operations, relationships and facilities, which may be subject to additional constraints imposed by local laws and regulations;

Realizing expected cost savings and synergies from the merger;

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Managing a complex integration process; and

Developing and maintaining consistent standards, controls, procedures, policies and information systems, and generally combining operations and systems.

If the combined company is not successful in addressing these and other challenges, then some or all of the benefits of the merger will not be realized and, as a result, the combined company's operating results and the market price of the combined company's common stock may be adversely affected. Further, neither Veeco nor FEI can assure you that the growth rate of the combined company will equal the historical growth rates experienced by either Veeco or FEI.

The market price of the combined company's common stock may decline as a result of the merger.

The market price of the combined company's common stock may decline as a result of the merger for a number of reasons, including if:

The integration of Veeco and FEI is not completed in a timely and efficient manner;

The combined company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts;

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The effect of the merger on the combined company's financial results is not consistent with the expectations of financial or industry analysts; or

Significant Veeco stockholders or FEI shareholders decide to dispose of their shares following completion of the merger.

Veeco's and FEI's officers and directors have interests different from yours that may have influenced them to support or approve the merger.

The directors and officers of Veeco and FEI have entered or may enter into arrangements that may create interests in the merger that are different from, or in addition to, yours, including the following:

Following the merger, the Veeco FEI board of directors will consist of thirteen members, seven of whom will be nominated by Veeco, five of whom will be nominated by FEI and one of whom will be nominated by PBE;

Veeco has entered into employment agreements providing that following the merger Edward H. Braun will remain as the combined company's President and Chief Executive Officer and Vahé A. Sarkissian will serve as the combined company's Chairman and Chief Strategy Officer;

Veeco has agreed to indemnify each present and former FEI officer and director against liabilities arising out of such person's services as an FEI officer or director;

Veeco FEI will maintain for the next six years officers' and directors' liability insurance to cover liabilities arising out of services provided as an officer or director of FEI;

Some of FEI's officers have severance agreements that provide for severance payments and other benefits if the employment of those officers terminates for certain reasons after the merger; and

Veeco and FEI have agreed to use commercially reasonable efforts to enter into new employment arrangements with certain key employees of Veeco and FEI.

For the above reasons, the directors and officers of Veeco and FEI may have been more likely to support and recommend the approval of the merger agreement than if they did not hold these interests. Veeco stockholders and FEI shareholders should consider whether these interests may have influenced these directors and officers to support or recommend the merger. You should read more

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about these interests in the section titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 69.

In addition, two directors of FEI are also employees or officers of Philips and/or PBE. In connection with the merger, Philips and PBE entered into certain agreements with FEI and Veeco. For a description of these agreements, see the sections titled "Other Agreements Voting Agreement with FEI Shareholders," "Other Agreements Investor Agreement with PBE" and "Other Agreements Amendment Agreement among FEI, PBE and Philips" and the documents filed by FEI with the SEC which are incorporated by reference in this joint proxy statement/prospectus. See the section titled "Where You Can Find More Information" beginning on page 126.

Failure to complete the merger could harm Veeco's and FEI's future businesses, operations and stock prices.

Veeco and FEI face a number of special risks if the merger is not completed, including the following risks:

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If the merger agreement is terminated for certain reasons, Veeco may be required to reimburse FEI for up to \$5 million of its fees and expenses in connection with the merger or pay FEI a termination fee of \$30 million. Whether Veeco must pay FEI's fees and expenses in connection with the merger or the termination fee depends upon the circumstances under which the merger agreement is terminated;

If the merger agreement is terminated for certain reasons, FEI may be required to reimburse Veeco for up to \$5 million of its fees and expenses in connection with the merger or pay Veeco a termination fee of \$30 million. Whether FEI must pay Veeco's fees and expenses in connection with the merger or the termination fee depends upon the circumstances under which the merger agreement is terminated;

Customers, suppliers and others may believe that the separate companies cannot effectively compete in the marketplace without the merger, or there is customer and employee uncertainty surrounding the future direction of the product and service offerings and strategy of Veeco and FEI on a stand alone basis;

The price of Veeco and/or FEI common stock may decline if their current market prices reflect a market assumption that the merger will be completed; and

Costs related to the merger, such as legal and accounting fees, SEC filing fees, antitrust filing fees and some financial advisory fees must be paid even if the merger is not completed.

Uncertainty regarding the merger and the effects of the merger could cause customers or strategic partners to delay or defer decisions, which could negatively affect the combined company's revenues.

Veeco's and/or FEI's customers and strategic partners, in response to the announcement of the merger, may delay or defer decisions, which could have a material adverse effect on the business of the relevant company, regardless of whether the merger is ultimately completed. In particular, prospective customers could be reluctant to purchase the combined company's products due to uncertainty about the direction of the combined company's product offerings and willingness to support and service existing products. To the extent that the merger creates uncertainty among those persons and organizations such that one large customer or a significant group of smaller customers, delays, defers or changes purchases in connection with the planned merger, revenue of the combined company would be adversely affected.

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In order to be successful, the combined company must retain and motivate key employees, which will be more difficult in light of uncertainty regarding the merger, and failure to do so could seriously damage the combined company.

In order to be successful, the combined company must retain and motivate executives and other key employees, including those in managerial, technical, marketing and information technology support positions. In particular, the combined company's product generation efforts depend on hiring and retaining qualified engineers. In addition, experienced management and technical, marketing and support personnel in the information technology industry are in high demand and competition for their talents is intense. Employee retention may be a particularly challenging issue in connection with the merger as employees of Veeco and FEI may experience uncertainty about their future role with the combined company until or after strategies with regard to the combined company are announced or executed. This circumstance may adversely affect the combined company's ability to attract and retain key management, sales, marketing and technical personnel.

Regulators may take action that could affect, delay or prohibit the merger or negatively affect the combined company and stockholders may not be able to change their vote in the event of any such action.

Veeco and FEI cannot complete the merger until they give notification and furnish information to the Federal Trade Commission and the Antitrust Division of the Department of Justice and observe a statutory waiting period under the HSR Act. Also, prior to completion of the merger, Veeco and FEI need to make filings with certain foreign competition authorities and comply with applicable foreign merger control laws. Veeco and FEI filed the required notification and report forms with the Federal Trade Commission and the Antitrust Division on July 19, 2002 and have made or intend to make filings with certain foreign antitrust authorities. If, prior to the expiration of the waiting period, the FTC or the Antitrust Division should request additional information or documentary material under the HSR Act, completion of the merger could be delayed until after the companies have substantially complied with the request. On August 12, 2002, the Antitrust Division of the Department of Justice contacted Veeco and FEI and has advised them that it intends to conduct a preliminary inquiry into the transaction. At any time before or

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after the closing of the merger, the Federal Trade Commission, the Antitrust Division or any state or foreign competition authority could take any action under the applicable antitrust or competition laws as it deems necessary or desirable. There can be no assurances that regulators will terminate or allow the waiting period to expire without seeking additional information, or will not take action to prohibit the merger or condition the merger on restrictions that would negatively impact the combined company. Private parties and state attorneys general may also challenge the transaction and seek to enjoin the merger under U.S. or foreign antitrust laws under certain circumstances.

If the merger fails to qualify as a reorganization, FEI shareholders will recognize additional gains or losses in their FEI shares.

Veeco and FEI have structured the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code. If the merger takes place, but fails to qualify as a reorganization, an FEI shareholder will generally recognize gain or loss on each FEI share exchanged in the merger. The amount of the gain or loss will be equal to the amount of the difference between the shareholder's tax basis in that share and the consideration the FEI shareholder receives in exchange for that share as a result of the merger (with Veeco shares valued at their fair market value at the closing of the merger).

Charges to earnings resulting from the application of the purchase method of accounting may adversely affect the market price of Veeco FEI's common stock following the merger.

In accordance with United States generally accepted accounting principles, the combined company will account for the merger using the purchase method of accounting, which will result in charges to

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earnings that could have a material adverse effect on the market price of the Veeco FEI common stock following completion of the merger. Under the purchase method of accounting, the combined company will allocate the total estimated purchase price to FEI's net tangible assets, amortizable intangible assets, intangible assets with indefinite lives and in-process research and development based on their fair values as of the date of completion of the merger, and record the excess of the purchase price over those fair values as goodwill. The portion of the estimated purchase price allocated to in-process research and development will be expensed by the combined company in the quarter in which the merger is completed. The combined company will incur additional depreciation and amortization expense over the useful lives of certain of the net tangible and intangible assets acquired in connection with the merger. Purchase accounting also requires fair valuation of assets that will result in the capitalization of profit in inventory and the loss of certain revenue and related deferred gross profit recorded in accordance with Staff Accounting Bulletin No. 101. In addition, to the extent the value of goodwill or intangible assets with indefinite lives become impaired, the combined company may be required to incur material charges relating to the impairment of those assets. These depreciation, amortization, in-process research and development and potential impairment charges could have a material impact on the combined company's results of operations.

Risks Related to the Combined Company

The following describes risks related to Veeco FEI the combined company following the merger. The Veeco stockholders and FEI shareholders will be stockholders of Veeco FEI following the merger.

The combined company will depend on the data storage, telecommunications/wireless, semiconductor and scientific research industries. Cyclicity in these markets may affect the combined company's business.

The combined company's business will depend in large part upon the capital expenditures of data storage, telecommunications/wireless, semiconductor and scientific research customers, which accounted for the following percentages of combined net sales of Veeco and FEI for the periods indicated:

	Year ended December 31,		Three months ended March 31, 2002
	2000	2001	
Data storage	29%	23%	20%
Telecommunications/Wireless	12%	16%	10%
Semiconductor	31%	28%	29%

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Year ended December 31,

Scientific Research and Industrial

~~28%~~ 53% 41%

The data storage, telecommunications/wireless, semiconductor and scientific research industries are cyclical. These industries have experienced significant economic downturns at various times in the last decade, characterized by diminished product demand, accelerated erosion of average selling prices and production overcapacity. A downturn in one or more of these industries, or the businesses of one or more of the combined company's customers, could have a material adverse effect on the combined company's business, prospects, financial condition and operating results.

The current global downturn in general economic conditions and in the markets for Veeco's and FEI's customers' products is resulting in a reduction in demand for some of Veeco's and FEI's products. Veeco and FEI have experienced the effects of the global economic downturn in many areas of their businesses. During this downturn and any subsequent downturns the combined company cannot assure you that its sales or margins will not decline. As a capital equipment provider, the combined company's revenues will depend in large part on the spending patterns of customers, who often delay expenditures or cancel orders in reaction to variations in their businesses or general economic conditions. Because a high proportion of the combined company's costs will be fixed, the combined company will have a limited ability to reduce expenses quickly in response to revenue shortfalls. In a prolonged economic downturn, the combined company may not be able to reduce its significant fixed costs, such as continued investment in research and development or capital equipment requirements. In addition, during an economic downturn, the combined company may experience delays in collecting receivables, which may impose constraints on its working capital.

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Variations in the amount of time it takes for the combined company to sell its systems may cause fluctuations in the combined company's operating results which could negatively impact the combined company's stock price.

Historically, both Veeco and FEI have experienced long and unpredictable sales cycles. Variations in the length of the combined company's sales cycles could cause the combined company's net sales, and therefore its business, financial condition, operating results and cash flows, to fluctuate widely from period to period. These variations will be based upon factors partially or completely outside the combined company's control. The factors that could affect the length of time it takes the combined company to complete a sale will depend upon many elements, including:

- The efforts of the combined company's sales force and the combined company's independent sales representatives;
- The history of previous sales to a customer;
- The complexity of the customer's fabrication processes;
- The economic environment;
- The internal technical capabilities and sophistication of the customer; and
- The capital expenditure budget cycle of the customer.

As a result of these and a number of other factors that could influence sales cycles with particular customers, the period between initial contact with a potential customer and the time when the combined company recognizes revenue from that customer, if ever, may vary widely. The combined company's sales cycle could typically take up to twelve months. Sometimes the combined company's sales cycle will be much longer. For instance, during an economic downturn or when a sale involves developing new applications for a system or technology, the sales cycle could be significantly extended. To complete sales during an economic downturn or sales involving new applications or technologies, for example, the combined company could commit substantial resources to its sales efforts before receiving any revenue, and may never receive any revenue from a customer despite these sales efforts which could have a negative impact on the combined company's revenues.

In addition to lengthy and sometimes unpredictable sales cycles, the build cycle, or the time it will take the combined company to build a product to customer specifications, will typically range from one to six months. During this period, the customer may cancel its order, although generally it will be required to pay the combined company a fee based on the stage of the build cycle the combined company has completed.

For many of the combined company's products, after a customer has purchased one of the combined company's systems, the combined company will provide an acceptance period during which the customer may evaluate the performance of the system and potentially reject the system. In addition, customers will often evaluate the performance of the combined company's systems for a lengthy period before purchasing any additional systems. The number of additional products a customer may purchase, if any, will often depend on many factors that are difficult to predict accurately, including a customer's capacity requirements and changing market conditions for its products. As a result of these evaluation periods and other factors, the period between a customer's initial purchase and subsequent purchases, if any, will often vary widely,

and variations in length of this period could cause further fluctuations in the combined company's operating results.

The combined company's business and financial results for a particular period could be materially and adversely affected if orders are canceled or rescheduled or if an anticipated order for even one system is not received in time to permit shipping during the period.

Customers will continue to be able to cancel or reschedule orders, generally with limited or no penalties. The amount of purchase orders at any particular date, therefore, is not necessarily indicative of sales to be made in any succeeding period. In addition, the combined company will derive a

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substantial portion of its net sales in any fiscal period from the sale of a relatively small number of high-priced systems. As a result, the timing of revenue recognition for a single transaction could have a material effect on the combined company's sales and operating results for a particular fiscal period.

Because the combined company will not have long-term contracts with its customers, its customers may stop purchasing its products at any time which would adversely affect its results of operations.

Historically, neither Veeco nor FEI have had long-term contracts with their customers. Consequently, it is not currently anticipated that the combined company will have long-term contracts with its customers. Accordingly:

Customers can stop purchasing the combined company's products at any time without penalty;

Customers will be free to purchase products from the combined company's competitors;

The combined company will be exposed to competitive price pressure on each order; and

Customers will not be required to make minimum purchases.

If the combined company does not succeed in obtaining new sales orders from new or existing customers, it will have a negative impact on its results of operations.

The combined company will rely on a limited number of parts, components and equipment manufacturers. Failure of any of these suppliers to perform in a timely or quality manner could negatively impact revenues.

Failure of critical suppliers of parts, components and manufacturing equipment to deliver sufficient quantities to the combined company in a timely and cost-effective manner could negatively affect the combined company's business. Both Veeco and FEI currently use numerous vendors to supply parts, components and subassemblies for the manufacture and support of their respective products. However, some key parts may be obtained only from a single supplier or a limited group of suppliers. In particular, FEI relies on Philips' Enabling Technology Group, a wholly-owned subsidiary of Philips, and Frencken Group B.V. for its supply of mechanical parts and subassemblies and RIPA Holding B.V. as a sole source for some of its electronic subassemblies. As a result of this concentration of key suppliers, the combined company's results of operations may be materially and adversely affected if, in the future, it does not timely and cost-effectively receive a sufficient quantity of parts to meet its production requirements or if it is required to find alternative suppliers for these supplies. The combined company will not be immediately seeking to expand its supplier group or to reduce its dependence on single suppliers. From time to time, FEI has experienced supply constraints with respect to the mechanical parts and subassemblies produced by Philips Enabling Technologies Group. If Philips Enabling Technologies Group is not able to supply the combined company's requirements, these constraints may affect the combined company's ability to deliver products to customers in a timely manner, which could have an adverse effect on the combined company's results of operations. Moreover, as a result of the reduction of PBE's ownership of FEI common stock after FEI's most recent public offering of common stock in May 2001, the cost of the parts and subassemblies purchased by the combined company from Philips Enabling Technologies Group and Philips may increase.

The combined company will also rely on a limited number of equipment manufacturers to develop and supply the equipment it uses to manufacture its products. The failure of these manufacturers to develop or deliver equipment on a timely basis could have a material adverse effect on the combined company's business and results of operations. In addition, as a result of the small number of equipment suppliers, the combined company may be more exposed to future cost increases for this equipment.

Because Veeco and FEI have significant operations in countries outside of the United States, the combined company may be subject to political, economic and other conditions affecting such countries that could result in increased operating expenses and regulation of its products.

Because significant portions of Veeco's and FEI's operations occur outside the United States, the combined company's revenues will be impacted by foreign economic and regulatory environments. For

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example, the combined company will have manufacturing facilities in Brno, Czech Republic and Eindhoven, Netherlands and sales offices in several other countries. In addition, approximately 35% of Veeco's sales and approximately 29% of FEI's sales in 2000 and approximately 28% of Veeco's sales and approximately 25% of FEI's sales in 2001 were derived from sales in Asia. In recent years, Asian economies have been highly volatile and recessionary, resulting in significant fluctuations in local currencies and other instabilities. Instabilities in Asian economies may continue and recur in the future, which could have a material adverse effect on the combined company's business, prospects, financial condition and operating results. The combined company's exposure to the business risks presented by Asian economies and other foreign economies will increase to the extent it continues to expand its global operations. International operations will continue to subject the combined company to a number of risks, including longer sales cycles; multiple, conflicting and changing governmental laws and regulations; protectionist laws and business practices that favor local companies; price and currency exchange controls; difficulties in collecting accounts receivable; and political and economic instability.

The combined company will be exposed to foreign currency exchange rate and interest rate risks that could adversely affect the revenues and gross margins of the combined company.

The combined company will be exposed to foreign currency exchange rate risks that will be inherent in its sales commitments, anticipated sales, and assets and liabilities that are denominated in currencies other than the United States dollar. The combined company also will be exposed to interest rate risks inherent in its debt and investment portfolios. Failure to sufficiently hedge or otherwise manage foreign currency risks properly could adversely affect the combined company's revenues and gross margins. A decrease in interest rates could adversely affect the combined company's interest income and results of operations.

The loss of one or more of Veeco's or FEI's key customers would result in the loss of a significant amount of the combined company's net revenues.

A relatively small number of customers account for a large percentage of Veeco's and FEI's net revenues. This situation is expected to continue for the combined company. The combined company's business will be seriously harmed if it does not generate as much revenue as it expects from these customers, experiences a loss of any of its significant customers or suffers a substantial reduction in orders from these customers. In 2001, Veeco's and FEI's two largest customers accounted for 16% and 13% of their respective net revenues.

The combined company's customers may be adversely affected by rapid technological change and the combined company may be unable to introduce new products on a timely basis.

The data storage, telecommunications/wireless, semiconductor and scientific research industries are subject to rapid technological change and new product introductions and enhancements. The combined company's ability to remain competitive will depend in part upon its ability to develop, in a timely and cost-effective manner, new and enhanced systems at competitive prices and to accurately predict technology transitions. In addition, new product introductions or enhancements by competitors could cause a decline in sales or loss of market acceptance of its existing products. Increased competitive pressure also could lead to intensified price competition resulting in lower margins, which could materially and adversely affect the combined company's business, prospects, financial condition and operating results. The combined company's success in developing, introducing and selling new and enhanced systems depends upon a variety of factors, including:

Product offerings;

Timely and efficient completion of product design and development;

Timely and efficient implementation of manufacturing processes;

Effective sales, service and marketing; and

Product performance in the field.

Because new product development commitments must be made well in advance of sales, new product decisions must anticipate both the future demand for products under development and the equipment required to produce such products. The combined company cannot be certain that it will be successful in selecting, developing, manufacturing and marketing new products or in enhancing existing products.

The process of developing new high technology capital equipment products and services is complex and uncertain, and failure to anticipate customers' changing needs and emerging technological trends accurately and to develop or obtain appropriate intellectual property could significantly harm its results of operations. The combined company must make long-term investments and commit significant resources before knowing whether its predictions will eventually result in products that the market will accept. For example, FEI has invested significant resources in the development of 300 mm semiconductor wafer manufacturing technology. If 300 mm fabrication is not widely accepted or if the combined company fails to develop 300 mm products that are accepted by the marketplace, its long-term growth could be diminished. Further, after a product is developed, it must be able to manufacture sufficient volumes quickly and at low costs. To accomplish this, it must accurately forecast volumes, mix of products and configurations that meet customer requirements, and it may not succeed.

The combined company's quarterly operating results may fluctuate because of many factors, which would cause the combined company's stock price to fluctuate.

Both Veeco's and FEI's net revenues and operating results have fluctuated in the past and the combined company's net revenues and operating results are likely to fluctuate significantly in the future on a quarterly and annual basis due to a number of factors, many of which are outside either company's control. Investors should not rely on the results of any one quarter or series of quarters as an indication of the combined company's future performance.

It is likely that in some future quarter or quarters the combined company's operating results will be below the expectations of public market analysts or investors. In such event, the market price of the combined company's common stock may decline significantly.

Because the combined company will have larger revenues and operations, third parties with potential litigation claims against either Veeco or FEI who decided not to pursue those claims against the individual companies may consider asserting those claims against the combined company, which could adversely affect the combined company's results of operations.

The combined company is expected to have significantly greater revenues and assets than either Veeco or FEI individually, operations in more countries than either Veeco or FEI individually, and more employees than either Veeco or FEI individually. As a result, it can be expected that some third parties who believe that they have claims against Veeco or FEI, but who chose not to assert those claims because of the size of the individual companies, may now choose to pursue those claims against the larger combined company.

The combined company cannot be certain that it will be able to compete successfully in its highly competitive industries.

The industries in which the combined company will operate are intensely competitive. Established companies, both domestic and foreign, will compete with each of its product lines. Many of the combined company's competitors will have greater financial, engineering, manufacturing and marketing resources. A substantial investment is required by customers to install and integrate capital equipment into a production line. As a result, once a manufacturer has selected a particular vendor's capital equipment, Veeco and FEI believe that the manufacturer generally relies upon that equipment for the specific production line application and frequently will attempt to consolidate its other capital equipment requirements with the same vendor. Accordingly, if a particular customer selects a competitor's capital equipment, the combined company will expect to experience difficulty selling to

that customer for a significant period of time. The combined company's ability to compete successfully will depend on a number of factors both within and outside the combined company's control, including:

Price;

Product quality;

Breadth of product line;

System performance;

Cost of ownership;

Global technical service and support; and

Success in developing or otherwise introducing new products.

The combined company cannot be certain that it will be able to compete successfully in the future.

The combined company could be subject to class action litigation due to stock price volatility, which, if it occurs, will distract management and result in substantial costs, and could result in judgments against the combined company.

In the past, securities class action litigation has often been brought against companies following periods of volatility in the market price of their securities. The combined company may be the target of similar litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources, which could cause serious harm to the combined company's business, financial condition and results of operations.

The combined company's revenues and selling, general and administrative expenses will suffer if it cannot continue to license or enforce the intellectual property rights on which its business will depend or if third parties assert that the combined company violates their intellectual property rights.

Several of the combined company's competitors hold patents covering a variety of technologies to be included in some of its products. In addition, some of the combined company's customers may use its microelectronics products for applications that are similar to those covered by these patents. From time to time, Veeco, FEI and their respective customers have received correspondence from their competitors claiming that some of Veeco's or FEI's products, as the case may be, as used by their customers, may be infringing one or more of these patents. As of the date of this joint proxy statement/prospectus, none of these allegations has resulted in litigation. Competitors or others may, however, assert infringement claims against the combined company or its customers in the future with respect to current or future products or uses, and these assertions may result in costly litigation or require the combined company to obtain a license to use intellectual property rights of others. If claims of infringement are asserted against the combined company's customers, those customers may seek indemnification from the combined company for damages or expenses they incur.

The combined company may also face greater exposure to claims of infringement in the future because PBE is no longer FEI's majority owner. As a result of PBE's reduction of ownership of FEI common stock in 2001, the combined company will not benefit from most of the Philips patent cross-licenses from which FEI benefited before that reduction.

If the combined company becomes subject to infringement claims, it will evaluate its position and consider the available alternatives, which may include seeking licenses to use the technology in question or defending its position. These licenses, however, may not be available on satisfactory terms or at all. If the combined company is not able to negotiate the necessary licenses on commercially reasonable terms or successfully defend the combined company's position, it could have a material adverse effect on the combined company's business, prospects, financial condition and operating results.

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The combined company is exposed to the risks that third parties may violate its proprietary rights and the combined company's intellectual property rights may not be well protected in foreign countries.

The combined company's success will depend on the protection of its proprietary rights. In the combined company's industry, intellectual property is an important asset that is always at risk of infringement. The combined company will incur costs to obtain and maintain patents and defend its intellectual property. The combined company will rely upon the laws of the United States and of other countries in which it develops, manufactures or sells products to protect its proprietary rights. However, these proprietary rights may not provide the competitive advantages that the combined company expects, or other parties may challenge, invalidate or circumvent these rights.

Further, the combined company's efforts to protect its intellectual property may be less effective in some countries where intellectual property rights are not as well protected as in the United States. Many U.S. companies have encountered substantial problems in protecting their proprietary rights against infringement in foreign countries. Veeco derived approximately 50% of its sales from foreign countries in 2000, and approximately 46% of its sales from foreign countries in 2001. FEI derived approximately 58% of its sales from foreign countries in 2000, and approximately 57% of its sales from foreign countries in 2001. If the combined company fails to adequately protect its intellectual property in these countries, it could be easier for its competitors to sell competing products.

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Infringement of the combined company's proprietary rights by a third party could result in lost market and sales opportunities for the combined company, as well as increased costs of litigation.

The loss of key management or the combined company's inability to attract and retain sufficient numbers of managerial, engineering and other technical personnel could have a material adverse effect on its business.

The combined company's continued success will depend, in part, upon key managerial, engineering and technical personnel as well as its ability to continue to attract and retain additional personnel. In particular, the combined company will depend on its President and Chief Executive Officer, Edward H. Braun, and its Chairman and Chief Strategy Officer, Vahé A. Sarkissian. The loss of key personnel could have a material adverse effect on the combined company's business, prospects, financial condition or operating results. The combined company may not be able to retain its key managerial, engineering and technical employees. The combined company's growth will be dependent on its ability to attract new highly skilled and qualified technical personnel, in addition to personnel that can implement and monitor its financial and managerial controls and reporting systems. Attracting qualified personnel is difficult, and the combined company cannot assure you that its recruiting efforts to attract and retain these personnel will be successful.

The combined company will be substantially leveraged.

After consummation of the merger, the combined company will have significant indebtedness. At March 31, 2002, on a pro forma basis after giving effect to the consummation of the merger, the combined company would have had total consolidated long-term debt (including current maturities) of approximately \$414 million.

The degree to which the combined company is leveraged could have important consequences to you including, but not limited to, the following:

Its ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes may be limited;

A substantial portion of its cash flow from operations will be dedicated to the payment of the principal of, and interest on, its indebtedness; and

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Its substantial leverage may make it more vulnerable to economic downturns, limit its ability to withstand competitive pressures and reduce its flexibility in responding to changing business and economic conditions.

The ability of Veeco FEI to pay interest and principal on its debt securities and to satisfy its other debt obligations and to make planned expenditures, will be dependent on its future operating performance, which could be affected by changes in economic conditions and other factors, including factors beyond its control. A failure to comply with the covenants and other provisions of its debt instruments could result in events of default under such instruments, which could permit acceleration of the debt under such instruments and in some cases acceleration of debt under other instruments that contain cross-default or cross-acceleration provisions. We believe that cash flow from operations will be sufficient to cover the combined company's debt service requirements and other requirements. However, if the combined company is at any time unable to generate sufficient cash flow from operations to service its indebtedness, it may be required to seek to renegotiate the terms of the instruments relating to that indebtedness, seek to refinance all or a portion of that indebtedness or to obtain additional financing. There can be no assurance that the combined company will be able to successfully renegotiate such terms, that any such refinancing would be possible or that any additional financing could be obtained on terms that are favorable or acceptable to the combined company.

The combined company will be subject to increased operational costs and other risks because PBE no longer owns a majority of FEI's common stock.

Before FEI's most recent public offering of common stock in May 2001, PBE's ownership interest in FEI fluctuated within a few percentage points of 50% of FEI's outstanding shares and PBE and its affiliates provided various services for, and engaged in a variety of transactions with FEI, some of which were upon terms more favorable to FEI than otherwise attainable in the general marketplace. On June 30, 2002, PBE beneficially owned approximately 25% of FEI's common stock. Because PBE is no longer FEI's majority shareholder, some of the tangible and intangible benefits and arrangements previously provided to FEI by Philips have terminated and some of these are in the process of being terminated. FEI will not have completed the replacement of all of its arrangements with Philips by the closing of the merger, and in some of

these areas the combined company may not be able to find replacement services at a similar or lower cost. Even if these services are available at a similar cost, indirect costs are associated with obtaining new vendors, including diversion of management time and resources.

Some of the specific types of increased costs the combined company may incur in the future include the following:

Intellectual Property. FEI had access to some forms of technology through cross-licenses between Philips and several manufacturers in the electronics industry, and some of FEI's patents are also subject to these cross-licenses. Some of these cross-licenses provided FEI with the right to use intellectual property that relates to its core technologies. In general, these cross-licenses were subject to majority ownership of FEI by PBE, and, because FEI is no longer majority owned by PBE, FEI has not been entitled to the benefits of these cross-licenses since May 22, 2001. Loss of the benefits of these cross-licenses has resulted or could result in the inability to use the previously licensed technology, the necessity of undertaking new licensing arrangements and paying royalties of an undetermined amount, or being subject to patent infringement actions. FEI cannot estimate the amount by which its operational costs will increase because of any potential required future royalty payments or possible litigation expenses.

Labor Costs. Because PBE is no longer FEI's majority shareholder, some of FEI's non-U.S. employees were required to become part of new collective bargaining units, and pension funds of FEI's employees that were held within Philips' pension funds were transferred to new pension funds. For the past several years, Philips' pension fund has been in an overfunded position

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because the value of its pension assets has exceeded the pension benefit obligations. During that time, Philips and its majority owned subsidiaries, including FEI, benefited from reduced pension contribution obligations and reduced pension expense. After FEI's employees were transferred out of the Philips pension plan effective September 1, 2001, FEI's pension costs in the Netherlands have increased by approximately \$3.5 million per year, due to FEI's loss of the benefit of the overfunding and the terms of the new collective bargaining arrangements. FEI's pension costs are expected to increase by approximately \$2.3 million in 2002 compared to 2001.

Research and Development. When PBE owned a majority of FEI, FEI entered into research and development contracts with Philips' research laboratories to purchase research and development services at below market rates. The combined company expects to continue to contract for research and development services from Philips in areas related to the combined company's business, but as a result of Philips' ownership of FEI's common stock falling below 45% following FEI's stock offering on May 22, 2001, the rates that Philips charges for research and development have increased. In 2001, FEI paid Philips \$3.2 million for contract research and development services. Beginning January 1, 2002, the hourly rate for research and development services provided by Philips to FEI has increased by approximately 40%.

Purchases Under Philips Arrangements and Terms. From time to time, FEI purchased materials, supplies and services under collective purchase agreements and purchase conditions negotiated by Philips for the benefit of its group of companies. These arrangements generally began to terminate on May 22, 2001. The benefits to FEI of these arrangements cannot be calculated precisely, but FEI believes that the costs of procuring these goods and services on a stand alone basis are higher than the costs under the Philips arrangements.

Other Costs. FEI also has a variety of other arrangements with Philips, such as use of the Philips intranet system for various functions, participation in purchasing programs and use of various administrative services. Most of these arrangements will change because PBE no longer owns a majority of FEI's common stock, and some of these changes will result in additional increased costs to FEI's business.

Payments by Philips. Philips had agreed to make certain payments to FEI to offset certain of the increased costs described above incurred by FEI as a result of the termination of certain benefits and arrangements provided by Philips. These payments have been recorded by FEI as a reduction in costs and operating expenses. FEI recognized \$1.4 million of these payments as a reduction in expense in 2001, and \$0.6 million of these payments as a reduction in expense in the thirteen weeks ended March 31, 2002. Upon the consummation of the merger, Philips will have no obligation to make any more of these payments, and the combined company will not recognize the reduction in expense following the merger date.

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PBE will have significant influence on all combined company stockholder votes and may have different interests than other combined company's stockholders.

PBE will own approximately 15% of the outstanding Veeco FEI common stock after the merger. As a result, PBE will have significant influence on matters submitted to the combined company's stockholders, including proposals regarding:

Any merger, consolidation or sale of all or substantially all of the combined company's assets;

The election of members of Veeco FEI's board of directors; and

A change of control of the combined company.

In addition to its significant influence, PBE's interests may be significantly different from the interests of other owners of the combined company's common stock, holders of the combined company's options to purchase common stock and holders of the combined company's debt securities.

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Under the investor agreement, PBE will also have the right to nominate a member of the combined company's board of directors for a certain period of time.

Terrorist acts and acts of war may seriously harm the combined company's business and revenues, costs and expenses and financial condition.

Terrorist acts or acts of war (wherever located around the world) may cause damage or disruption to the combined company, its employees, facilities, partners, suppliers, distributors and customers, which could significantly impact its revenues, costs and expenses and financial condition. The terrorist attacks that took place in the United States on September 11, 2001 were unprecedented events that have created many economic and political uncertainties, some of which may materially harm the combined company's business and results of operations. The potential for future terrorist attacks, the national and international responses to terrorist attacks, and other acts of war or hostility have created many economic and political uncertainties, which could adversely affect the business and results of operations of the combined company in ways that cannot presently be predicted. The combined company will be largely uninsured for losses and interruptions caused by terrorist acts and acts of war.

Unforeseen environmental costs could impact the future net earnings of the combined company.

Some of the combined company's operations will use substances regulated under various federal, state and international laws governing the environment. The combined company could be subject to liability for remediation if it does not handle these substances in compliance with applicable laws. It will be the combined company's policy to apply strict standards for environmental protection to sites inside and outside the United States, even when not subject to local government regulations. The combined company will record a liability for environmental remediation and related costs when it considers the costs to be probable and the amount of the costs can be reasonably estimated.

Veeco FEI's organizational documents will have anti-takeover provisions that might, among other things, discourage, prevent or delay a change of control of Veeco FEI that a holder of Veeco FEI stock might consider in its best interest.

Veeco FEI's board of directors will continue to have the authority to issue up to 500,000 shares of "blank check" preferred stock and to fix the rights, preferences, privileges and restrictions, including voting rights, of these shares without any further vote or action by Veeco FEI's stockholders. The rights of the holders of any preferred stock that may be issued in the future may adversely affect the rights of the holders of Veeco FEI common stock. The issuance of the preferred stock, while providing Veeco FEI with desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire a majority of Veeco FEI's outstanding voting stock. This could delay, defer or prevent a change of control of Veeco FEI that a holder of Veeco FEI common stock might consider in its best interests. Furthermore, such preferred stock may have other rights including economic rights senior to Veeco FEI common stock, and as a result, the issuance of the preferred stock could have a material adverse effect on the market value of Veeco FEI common stock. Veeco FEI has no present plan to issue shares of preferred stock.

Veeco FEI's board of directors will continue to be divided into three classes of directors with staggered terms. Directors will be elected to three-year terms and the term of one class of directors will expire each year. The existence of a classified board of directors is designed to provide continuity and stability to Veeco FEI's management, which results from directors serving for three-year, rather than one-year terms. The existence of a classified board of directors may make it more difficult for a third party to acquire control of Veeco FEI in certain instances. This could delay, defer or prevent a change of control that a holder of Veeco FEI common stock might consider in its best interest. Further, if Veeco stockholders are dissatisfied with the policies and/or decisions of Veeco FEI's board of directors, the existence of a classified board of directors will make it more difficult for the stockholders to change

the composition (and therefore the policies) of Veeco FEI's board of directors in a relatively short period of time.

Veeco FEI will continue Veeco's rights plan, commonly called a "poison pill." This could make it more difficult for a third party to acquire control of Veeco FEI in certain circumstances. This could also delay, defer or prevent a change of control that a Veeco FEI stockholder might consider in its best interests.

Also, certain other provisions in Veeco's Amended and Restated Certificate of Incorporation will continue to be in Veeco FEI's Amended and Restated Certificate of Incorporation and bylaws relating to:

Actions required to be taken at a meeting of stockholders; and

The percentage of stockholders required to call a special meeting of stockholders,

which may delay, defer or prevent a takeover attempt that a holder of Veeco FEI common stock might consider in its best interest.

Furthermore, Veeco FEI may in the future adopt other measures that may have the effect of delaying, deferring or preventing a change of control of Veeco FEI. Certain of these measures may be adopted without any further vote or action by the holders of Veeco FEI common stock.

Risks Related to the Failure of Veeco's Stockholders to Approve the Change of Corporate Name Amendment to Veeco's Amended and Restated Certificate of Incorporation

Veeco may be deemed to be in violation of contractual arrangements including the merger agreement.

If Veeco's stockholders do not approve the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc., then Veeco could be deemed to be in violation of contractual provisions in the merger agreement which, if deemed material, could give rise to FEI's right to terminate the merger agreement. In the case of such a termination by FEI, Veeco could be required to pay FEI's fees and expenses, up to \$5 million, incurred in connection with the merger agreement and the merger.

SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL DATA OF VEECO AND FEI

The following information is being provided to assist you in analyzing the financial aspects of the merger.

The historical selected financial information for Veeco for the three months ended March 31, 2002 and March 31, 2001 was derived from the unaudited consolidated financial statements included in Veeco's quarterly report on Form 10-Q for the quarterly period ended March 31, 2002 incorporated by reference into this joint proxy statement/prospectus. The historical data presented for Veeco for the three months ended March 31, 2002 and 2001 is unaudited and, in the opinion of Veeco's management, includes all adjustments, consisting of normal recurring adjustments, necessary for the fair presentation of such data. Veeco's historical results for the three months ended March 31, 2002 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2002. The historical selected statement of operations data for Veeco for the fiscal years ended December 31, 2001, 2000, 1999, 1998 and 1997 and the historical balance sheet data of Veeco as of

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December 31, 2001, 2000, 1999, 1998 and 1997 was derived from the historical audited consolidated financial statements of Veeco incorporated by reference into this joint proxy statement/prospectus.

The historical selected financial information for FEI for the thirteen weeks ended March 31, 2002 and April 1, 2001 was derived from the unaudited consolidated financial statements included in FEI's quarterly report on Form 10-Q for the quarterly period ended March 31, 2002 incorporated by reference in this joint proxy statement/prospectus. The historical data presented for FEI for the thirteen weeks ended March 31, 2002 and April 1, 2001 is unaudited and, in the opinion of FEI's management, includes all adjustments, consisting of normal recurring adjustments, necessary for the fair presentation of such data. FEI's historical results for the thirteen weeks ended March 31, 2002 are not necessarily indicative of the results to be expected for the fiscal year ending December 31, 2002. The historical selected statement of operations data for FEI for the fiscal years ended December 31, 2001, 2000 and 1999 and the historical consolidated balance sheet data of FEI as of December 31, 2001 and 2000 was derived from the historical audited consolidated financial statements of FEI incorporated by reference into this joint proxy statement/prospectus. The historical selected statement of operations data for FEI for the fiscal years ended December 31, 1998 and 1997 and the historical balance sheet data for FEI as of December 31, 1999, 1998 and 1997 have been derived from FEI's historical financial statements, which are not incorporated by reference into this joint proxy statement/prospectus.

The selected unaudited pro forma consolidated financial data is based upon the historical consolidated financial statements and notes thereto (as applicable) of Veeco and FEI, which are incorporated by reference herein. The selected unaudited pro forma consolidated balance sheet data gives pro forma effect to the merger as if it had been consummated on March 31, 2002 and combines Veeco's March 31, 2002 unaudited consolidated balance sheet with FEI's March 31, 2002 unaudited consolidated balance sheet. The selected unaudited pro forma consolidated statements of operations data give pro forma effect to the merger as if it had been consummated on January 1, 2001 and combine Veeco's consolidated statement of operations for the year ended December 31, 2001 with FEI's consolidated statement of operations for the year ended December 31, 2001 and Veeco's unaudited consolidated statements of operations for the three months ended March 31, 2001 and 2002, respectively, with FEI's unaudited consolidated statements of operations for the thirteen weeks ended April 1, 2001 and March 31, 2002, respectively. The pro forma adjustments are subject to change pending a final analysis of fair values of the assets acquired and liabilities assumed. The impact of these changes could be material.

In addition, on September 17, 2001, a wholly-owned subsidiary of Veeco merged with and into Applied Epi, Inc. of St. Paul, Minnesota. As a result of that merger, Applied Epi became a wholly-owned subsidiary of Veeco. The selected unaudited pro forma consolidated statement of operations

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data for the three months ended March 31, 2001 and for the year ended December 31, 2001 give effect to the acquisition of Applied Epi by Veeco as if it occurred on January 1, 2001.

The selected unaudited pro forma consolidated financial data is derived from the unaudited pro forma consolidated financial statements included elsewhere herein and should be read in conjunction with those statements and notes thereto. See the section titled "Unaudited Pro Forma Consolidated Financial Statements." The selected unaudited pro forma consolidated financial data is based upon the estimates and assumptions set forth in the introduction and notes to the Unaudited Pro Forma Consolidated Financial Statements included elsewhere herein. The pro forma adjustments (including estimates and assumptions) made in connection with the preparation of the pro forma information are preliminary and have been made solely for purposes of preparing such pro forma information for illustrative purposes necessary to comply with the disclosure requirements of the SEC. The selected unaudited pro forma consolidated financial data does not purport to be indicative of the results of operations for future periods or the consolidated financial position or results that actually would have been realized had Veeco and FEI been a single entity during these periods. The selected unaudited pro forma consolidated financial data does not give effect to any synergies, cost savings, or integration costs that may result from the integration of Veeco's and FEI's businesses. Costs associated with the Veeco FEI transaction related to restructuring and integration have not yet been determined. In addition, FEI's operating costs have increased and may further increase due to the termination (and expected termination) of some of the tangible and intangible benefits and arrangements provided to FEI by Philips. Certain of these benefits and arrangements terminated prior to March 31, 2002 and a portion of these increased costs resulting therefrom have already been incurred by FEI. FEI has also received payments described herein from Philips which have offset certain of these increased costs and have been recorded by FEI as a reduction in costs and operating expenses. The selected unaudited pro forma consolidated financial data excludes the effect of a portion of the additional operating costs which may be incurred in connection with the termination of certain arrangements between FEI and Philips which costs cannot be reasonably estimated at this time. In addition, the selected unaudited pro forma consolidated data exclude the effect of a portion of the increased additional pension costs of FEI which will be incurred in connection with the new collective bargaining agreements which took effect September 1, 2001. For more information concerning these additional costs, see the section titled "Risk Factors The combined company will be subject to increased operational costs and other risks because PBE no longer owns a majority of FEI's common stock."

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The following information should be read in conjunction with the historical financial statements and related notes contained in the annual, quarterly and other reports filed by Veeco and FEI with the SEC. See the section titled "Where You Can Find More Information" beginning on page 126.

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VEECO INSTRUMENTS INC. AND SUBSIDIARIES
SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA
(Dollars in thousands, except per share data)

	Three months ended March 31,		Year ended December 31,				
	2002	2001	2001	2000	1999	1998	1997
Statement of Operations							
Data (1), (2), (3):							
Net sales	\$ 80,149	\$ 125,386	\$ 449,251	\$ 376,113	\$ 312,446	\$ 263,411	\$ 266,551
Cost of sales	46,414	66,696	260,148(4)	219,578(5)	164,783	145,286	142,518
Gross profit	33,735	58,690	189,103	156,535	147,663	118,125	124,033
Costs and expenses	36,162	39,083	154,114	131,469	102,880	88,113	78,589
Merger and restructuring expenses	837(6)		3,046(4)	14,206(5)	2,600(7)	7,500(7)	2,250(7)
Write-off of purchased in-process technology			8,200(4)		2,474(8)		4,200(8)
Write-off of deferred charges						675	
Asset impairment charge			3,418(4)	3,722(5)			
Operating (loss) income	(3,264)	19,607	20,325	7,138	39,709	21,837	38,994
Interest expense (income), net	1,486	(767)	(577)	(1,307)	(695)	2,185	715
(Loss) income from continuing operations before income taxes							
cumulative effect of change in accounting principle	(4,750)	20,374	20,902	8,445	40,404	19,652	38,279
Income tax (benefit) provision	(1,598)	7,158	6,020	5,780	15,302	6,012	9,393
(Loss) income from continuing operations before cumulative effect of change in accounting principle	(3,152)	13,216	14,882	2,665	25,102	13,640	28,886
Discontinued Operations:							
Loss from operations, net of taxes		(343)	(2,450)	(2,163)	(1,387)	(3)	(225)
Loss on disposal, net of taxes	(346)		(2,123)		(1,734)		
Loss from discontinued operations, net of taxes	(346)	(343)	(4,573)	(2,163)	(3,121)	(3)	(225)
Cumulative effect of change in accounting principle, net of income taxes (9)				(18,382)			
Net (loss) income	\$ (3,498)	\$ 12,873	\$ 10,309	\$ (17,880)	\$ 21,981(9)	\$ 13,637(9)	\$ 28,661
Earnings per share:							
(Loss) income per common share from continuing operations before cumulative effect of change in	\$ (0.11)	\$ 0.54	\$ 0.57	\$ 0.11	\$ 1.22	\$ 0.73	\$ 1.57

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	Three months ended March 31,		Year ended December 31,				
accounting principle							
Loss from discontinued operations	(0.01)	(0.02)	(0.17)	(0.09)	(0.15)	(0.00)	(0.01)
Cumulative effect of change in accounting principle				(0.77)			
Net (loss) income per common share	\$ (0.12)	\$ 0.52	\$ 0.40	\$ (0.75)	\$ 1.07(10)	\$ 0.73(10)	\$ 1.56
Diluted (loss) income per common share from continuing operations before cumulative effect of change in accounting principle	\$ (0.11)	\$ 0.52	\$ 0.56	\$ 0.11	\$ 1.17	\$ 0.70	\$ 1.49
Loss from discontinued operations	(0.01)	(0.01)	(0.17)	(0.09)	(0.15)	(0.00)	(0.01)
Cumulative effect of change in accounting principle				(0.73)			
Diluted net (loss) income per common share	\$ (0.12)	\$ 0.51	\$ 0.39	\$ (0.71)	\$ 1.02(10)	\$ 0.70(10)	\$ 1.48
Weighted average shares outstanding	29,021	24,678	25,937	23,805	20,604	18,775	18,430
Diluted weighted average shares outstanding	29,021	25,230	26,355	25,128	21,461	19,436	19,424

	As of December 31,					
	As of March 31, 2002	2001	2000	1999	1998	1997
Balance Sheet Data (1), (2), (3):						
Cash, cash equivalents and short-term investments	\$ 219,108	\$ 203,154	\$ 90,314	\$ 80,739	\$ 23,599	\$ 23,307
Working capital	367,244	358,023	220,463	171,977	97,977	79,742
Excess of cost over net assets acquired, net	125,585	125,585	9,481	6,500	4,187	4,318
Total assets	753,606	755,519	422,525	338,744	213,177	204,035
Long-term debt (including current installments)	238,511	219,063	16,062	38,704	35,865	26,971
Stockholders' equity	420,406	423,971	282,908	223,944	127,719	107,575

- (1) During December 2001, Veeco classified its industrial measurement operating segment as a discontinued operation. The Consolidated Statements of Operations and Balance Sheet data for all years presented have been restated to reflect this. See Note 7 to the consolidated financial statements included in Veeco's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, incorporated by reference herein.
- (2) Prior to Veeco's merger with CVC, Inc. on May 5, 2000, CVC's fiscal year end was September 30. Therefore the Statement of Operations data for all years presented through 1999 was derived from CVC's financial statements for the respective twelve month periods ended September 30. In addition, the Balance Sheet Data through 1999 was derived from CVC's September 30 balance sheets.
- (3) Prior to Veeco's merger with Ion Tech, Inc. on November 4, 1999, Ion Tech's fiscal year end was June 30. In connection with the merger, the financial results of Ion Tech were recast for 1998 to conform to Veeco's December 31 year end. For the year ended December 31, 1997, historical results include those for Ion Tech's fiscal year ended June 30, 1998, thus resulting in six months of 1998 activity in the 1997 results of operations.
- (4) Veeco incurred merger and restructuring charges of \$28.2 million during the year ended December 31, 2001. Of these charges, \$13.6 million related to the write-off of inventory (included in cost of sales), \$8.2 million related to the write-off of purchased in-process technology (\$7.0 million resulting from the acquisition of Applied Epi, Inc. and \$1.2 million from the acquisition of Thermo Microscopes Corp.), \$3.0 million represented restructuring

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costs and \$3.4 million was for the write-down of long-lived assets. See Note 7 to Veeco's consolidated financial statements included in Veeco's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, incorporated by reference herein.

- (5) Veeco incurred merger and reorganization charges of \$33.3 million during the year ended December 31, 2000, of which \$33.0 million related to the merger with CVC. Of these charges, \$15.3 million related to a write-off of inventory (included in cost of sales), \$14.0 million represented merger and reorganization costs (of which \$9.2 million related to investment banking, legal and other one-time transaction costs and \$4.8 million pertained to duplicate facility and personnel costs) and \$3.7 million was for the write-off of long-lived assets. See Note 2 to Veeco's consolidated financial statements included in Veeco's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, incorporated by reference herein.
- (6) Veeco incurred restructuring expense of \$0.8 million during the three months ended March 31, 2002 related to the cost reduction efforts that were initiated during the fourth quarter of 2001.
- (7) During 1999, Veeco recorded charges of \$2.6 million related to merger expenses in connection with the merger with Ion Tech. In 1998, Veeco recorded merger and reorganization expenses of \$7.5 million related to the merger with Digital Instruments, Inc. During 1997, Veeco incurred \$2.3 million of merger expenses in conjunction with the merger with Wyko Corporation.
- (8) During 1999, Veeco recorded a \$2.5 million charge related to the write-off of purchased in-process technology (\$1.3 million related to the acquisition of OptiMag, Inc. and \$1.2 million related to CVC's acquisition of Commonwealth Scientific Corporation). During 1997, Veeco recorded a \$4.2 million charge related to the write-off of purchased in-process technology in connection with the acquisition of physical vapor deposition assets.
- (9) Effective January 1, 2000, Veeco changed its method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101. See Note 1 to the audited consolidated financial statements contained in Veeco's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, incorporated by reference herein.
- (10) Veeco adopted Staff Accounting Bulletin No. 101 effective January 1, 2000. Had this adoption taken place on January 1, 1998, net income, net income per common share and diluted net income per common share on a pro forma basis for 1999 and 1998 would have been as follows:

	1999	1998
Net income	\$ 13,695	\$ 12,682
Net income per common share	\$ 0.66	\$ 0.68
Diluted net income per common share	\$ 0.64	\$ 0.65

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FEI COMPANY SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA (Dollars in thousands, except per share data)

	Thirteen weeks ended March 31, 2002	Thirteen weeks ended April 1, 2001	Year ended December 31,				
			2001	2000	1999	1998	1997
Statements of Operations Data:							
Net sales	\$ 84,498	\$ 93,515	\$ 376,004	\$ 320,300	\$ 216,152	\$ 178,771	\$ 168,796
Cost of sales	44,652	48,572	193,612	183,178	131,143	119,579	106,629
Gross profit	39,846	44,943	182,392	137,122	85,009	59,192	62,167
Total operating expenses(1)	29,278	28,059	123,318	100,602	87,524	68,768	95,040
Operating income (loss)	10,568	16,884	59,074	36,520	(2,515)	(9,576)	(32,873)
Other expense, net(2)	1,234	195	4,074	1,637	65	4,129	622

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	Thirteen weeks ended March 31, 2002	Thirteen weeks ended April 1, 2001	Year ended December 31,				
			2001	2000	1999	1998	1997
Income (loss) before taxes and cumulative effect of change in accounting principle	9,334	16,689	55,000	34,883	(2,580)	(13,705)	(33,495)
Income tax expense (benefit)	3,407	6,466	22,494	14,073	4,800	(4,797)	3,107
Income (loss) before cumulative effect of change in accounting principle	5,927	10,223	32,506	20,810	(7,380)	(8,908)	(36,602)
Cumulative effect of change in accounting principle(3)				(7,499)			
Net income (loss)	\$ 5,927	\$ 10,223	\$ 32,506	\$ 13,311	\$ (7,380)	\$ (8,908)	\$ (36,602)

Earnings per share:

Basic:							
Income (loss) before cumulative effect of change in accounting principle per share	\$ 0.18	\$ 0.36	\$ 1.06	\$ 0.74	\$ (0.34)	\$ (0.49)	\$ (2.19)
Cumulative effect of change in accounting principle per share(3)				(0.27)			
Net income (loss) per share	\$ 0.18	\$ 0.36	\$ 1.06	\$ 0.47	\$ (0.34)	\$ (0.49)	\$ (2.19)

Diluted:

Income (loss) before cumulative effect of change in accounting principle per share	\$ 0.18	\$ 0.34	\$ 1.02	\$ 0.70	\$ (0.34)	\$ (0.49)	\$ (2.19)
Cumulative effect of change in accounting principle per share(3)				(0.25)			
Net income (loss) per share	\$ 0.18	\$ 0.34	\$ 1.02	\$ 0.45	\$ (0.34)	\$ (0.49)	\$ (2.19)

Weighted average shares outstanding:

Basic	32,126	28,686	30,563	28,091	21,745	18,106	16,677
Diluted	33,477	29,976	31,986	29,827	21,745	18,106	16,677

As of December 31,

	As of March 31, 2002	As of December 31,					
		2001	2000	1999	1998	1997	
Balance Sheet Data:							
Cash and cash equivalents	\$ 169,760	\$ 176,862	\$ 24,031	\$ 11,124	\$ 15,198	\$ 16,394	
Working capital	332,149	349,024	91,175	84,957	70,350	64,496	
Total assets	609,890	607,476	314,823	288,100	191,138	183,022	
Long-term interest-bearing debt	175,000	175,000	25,674	36,012	26,349	17,844	
Shareholders' equity	302,961	296,516	168,289	152,577	97,627	104,889	

(1)

Included in 1997 total operating expenses is a charge of \$38.0 million to write off in-process research and development in connection with the acquisition of the Philips electron optics business and a restructuring charge of \$2.5 million incurred in connection with consolidating FEI's Massachusetts operations. Included in 1998 operating expenses is a restructuring charge of \$5.3 million undertaken to consolidate operations, eliminate redundant facilities, reduce operating expenses and provide for outsourcing of certain manufacturing activities. Included in 1999 operating expenses is a charge of \$14.1 million to write off acquired in-process research

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and development in connection with the acquisition of Micrion Corporation in August 1999 and a restructuring charge of \$0.1 million. Included in 2001 operating expenses is a charge of \$3.4 million to write off acquired in-process research and development in connection with acquisitions.

(2)

Included in 1998 other expense, net is a valuation charge of \$3.3 million taken to reduce the carrying value of a cost method investment. Included in 2001 other expense, net is a valuation charge of \$3.7 million to adjust the carrying value of FEI's cost method investment in Surface Interface, Inc. to reflect the price FEI paid to acquire the rest of Surface/Interface in 2001.

(3)

Effective January 1, 2000, FEI changed its method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101. See Note 1 to the audited consolidated financial statements contained in FEI's 2001 annual report on Form 10-K.

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**SELECTED UNAUDITED PRO FORMA
CONSOLIDATED FINANCIAL DATA**
(Dollars in thousands, except per share data)
(unaudited)

	Year ended	Quarter ended	
	December 31,	March 31,	
	2001	2001	2002
Statement of Operations Data:			
Net sales	\$ 858,455	\$ 227,380	\$ 164,647
Cost of sales	469,982	120,039	91,066
Gross profit	388,473	107,341	73,581
Costs and expenses	314,410	81,322	72,658
Reorganization expense	3,046		837
Asset impairment charge	7,136		
Write-off of purchased in-process technology	4,638		
Operating income	59,243	26,019	86
Interest expense (income), net	2,163	(145)	2,366
Income (loss) before income taxes	57,080	26,164	(2,280)
Income tax provision (benefit)	18,986	9,809	(593)
Income (loss) from continuing operations	\$ 38,094	\$ 16,355	\$ (1,687)
Earnings per share:			
Income (loss) per common share	\$ 0.52	\$ 0.23	\$ (0.02)
Diluted income (loss) per common share	\$ 0.50	\$ 0.22	\$ (0.02)
Weighted average shares outstanding	73,715	72,455	72,915
Diluted weighted average shares outstanding	76,287	75,062	72,915
		As of	
		March 31, 2002	
Balance Sheet Data:			
Cash, cash equivalents and short-term investments		\$ 476,120	
Working capital		706,647	
Excess of cost over net assets acquired, net		600,452	
Total assets		2,011,982	
Long-term debt (including current installments)		413,614	
Stockholders' equity		1,262,274	

COMPARATIVE PER SHARE DATA
(Unaudited)

The following table sets forth:

Certain historical per share data of Veeco and FEI; and

Unaudited pro forma combined per share data of Veeco and FEI based on a conversion ratio in the merger of 1.355 shares of Veeco common stock for each share of FEI common stock. This data should be read in conjunction with the selected financial data, the historical consolidated financial statements of Veeco and FEI and the notes thereto which are incorporated by reference in this joint proxy statement/prospectus. The pro forma combined and equivalent pro forma financial data are not necessarily indicative of the operating results or financial position that would have been achieved had the merger been consummated at the beginning of the periods presented, and should not be construed as indicative of future operations. Neither Veeco nor FEI has ever declared or paid cash dividends on its shares of capital stock.

	Year Ended December 31, 2001	Quarter Ended March 31, 2002
Historical Veeco:		
Income (loss) per common share from continuing operations	\$ 0.57	\$ (0.11)
Diluted income (loss) per common share from continuing operations	\$ 0.56	\$ (0.11)
Book value per share(1)	\$ 14.62	\$ 14.48
Historical FEI:		
Income per common share from continuing operations	\$ 1.06	\$ 0.18
Diluted income per common share from continuing operations	\$ 1.02	\$ 0.18
Book value per share(1)	\$ 9.25	\$ 9.39
Pro Forma Combined:		
Income (loss) per common share from continuing operations	\$ 0.52	\$ (0.02)
Diluted income (loss) per common share from continuing operations	\$ 0.50	\$ (0.02)
Book value per share(2)	\$ 17.41	\$ 17.35
Equivalent Pro Forma FEI(3):		
Income (loss) per common share from continuing operations	\$ 0.70	\$ (0.03)
Diluted income (loss) per common share from continuing operations	\$ 0.68	\$ (0.03)
Book value per share	\$ 23.59	\$ 23.50

(1) Historical book value per share is computed by dividing stockholders' equity by the number of shares of Veeco or FEI common stock outstanding at the end of each period.

(2) Pro forma combined book value per share is computed by dividing pro forma stockholders' equity by the sum of (a) the number of shares of Veeco common stock outstanding at the end of the period and (b) FEI common stock outstanding at the end of the period multiplied by 1.355.

(3)

Equivalent Pro Forma FEI per share amounts are calculated by multiplying pro forma combined per share amounts by the exchange ratio in the merger of 1.355 shares of Veeco common stock for each share of FEI common stock.

THE VEECO SPECIAL MEETING

Date, Time and Place of Veeco Special Meeting

The Veeco special meeting will be held at 9:30 a.m. (local time), on _____, _____, 2002, at the Corporate Center, 395 North Service Road, Melville, New York.

Purpose

The purpose of the Veeco special meeting is to approve both the issuance of Veeco common stock in the merger and the proposals to amend Veeco's Amended and Restated Certificate of Incorporation to increase the number of Veeco's authorized shares of common stock from 60,000,000 to 175,000,000 and to change the name of Veeco Instruments Inc. to Veeco FEI Inc.

Record Date and Outstanding Shares

Only holders of record of Veeco common stock at the close of business on _____, 2002, the Veeco record date, are entitled to notice of, and to vote at, the Veeco special meeting. As of the Veeco record date, there were approximately _____ Veeco stockholders of record holding an aggregate of approximately _____ shares of Veeco common stock.

On or about _____, 2002, this joint proxy statement/prospectus, which includes a notice satisfying the applicable requirements of Delaware law, is being mailed to all Veeco stockholders of record as of the Veeco record date.

Voting and Solicitation

At the Veeco special meeting, each Veeco stockholder will be entitled to one vote for each share of Veeco common stock held by it. Under Veeco's bylaws, the presence of the holders of at least 50% of all of the Veeco common stock entitled to vote, whether present in person or by proxy, at Veeco's special meeting, shall constitute a quorum for the transaction of business at Veeco's special meeting.

Under applicable rules of The Nasdaq National Market, if a quorum is present, the affirmative vote of a majority of the votes cast, whether in person or by proxy, at Veeco's special meeting, is required to approve the issuance of Veeco common stock in connection with the merger. Under the Delaware General Corporation Law, the affirmative vote of the holders of a majority of the outstanding shares of Veeco common stock entitled to vote, whether in person or by proxy, is required to approve the amendments to Veeco's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Veeco common stock from 60,000,000 to 175,000,000 and to change the name of Veeco Instruments Inc. to Veeco FEI Inc.

Shares of Veeco common stock that are voted "FOR," "AGAINST" or "ABSTAIN" with respect to a matter, or are broker non-votes, will be treated as being present at the Veeco special meeting for purposes of establishing a quorum. For purposes of voting upon the approval of the amendments to Veeco's Amended and Restated Certificate of Incorporation, the effect of an abstention or a broker non-vote is the same as a vote against the proposal.

To vote by proxy, you should complete your proxy card and mail it in the enclosed postage prepaid envelope.

If your shares are held in an account at a brokerage firm or bank, you must direct them on how to vote your shares. Your broker or bank will vote your shares only if you provide directions on how to vote by following the instructions provided to you by your broker or bank.

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The holders of approximately 12.8% of Veeco's outstanding common stock, as of June 30, 2002, have entered into voting agreements with FEI under which they have agreed to vote their shares of Veeco common stock in favor of approval of the issuance of Veeco common stock to FEI shareholders in the merger and the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock. These Veeco stockholders, however, may vote their Veeco shares in favor of a Superior Veeco Proposal or related Veeco Acquisition Transaction. Such Veeco stockholders include certain executive officers and directors of Veeco and Chorus, L.P., Veeco's largest stockholder. These Veeco stockholders have also granted FEI irrevocable proxies to vote their Veeco common stock in this manner. See the section titled "Other Agreements Voting Arrangements with Veeco Stockholders" on page 96.

All valid proxies received prior to the Veeco special meeting will be voted. All shares represented by a proxy will be voted, and where a stockholder specifies by means of the proxy a choice ("FOR," "AGAINST" or "ABSTAIN") with respect to any matter to be acted upon, the shares will be voted in accordance with the specification so made. **If no choice is made on the proxy, the shares will be voted "FOR" the issuance of Veeco common stock in the merger and "FOR" the approval of the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation (other than broker non-votes, which shares will not be voted).**

The cost of this solicitation to Veeco stockholders will be borne by Veeco. Veeco has retained Georgeson to solicit proxies. Georgeson may contact Veeco stockholders by mail, telephone, telex, telegraph and personal interviews. Georgeson will receive from Veeco a fee of \$9,000 for its services, plus reimbursement of out-of-pocket expenses. Veeco has agreed to indemnify Georgeson against certain liabilities and expenses in connection with such solicitation, including liabilities under the federal securities laws. In addition, Veeco may reimburse brokerage firms, banks and other fiduciaries representing beneficial owners of Veeco common stock for expenses incurred in forwarding solicitation material to such beneficial owners. Proxies also may be solicited by certain of Veeco's directors, officers and regular employees, personally or by telephone or telecopier. Such persons will not receive additional compensation, but may be reimbursed for reasonable out-of-pocket expenses incurred in connection with such solicitations.

Any Veeco stockholder giving a proxy has the power to revoke it at any time prior to the vote by:

Filing with Veeco's Secretary written notice of revocation or a duly executed proxy bearing a later date; or

Voting in person at the Veeco special meeting.

Recommendation of Veeco's Board of Directors

Veeco's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders. After careful consideration, Veeco's board of directors unanimously recommends that Veeco stockholders vote in favor of the issuance of Veeco common stock to FEI shareholders in the merger. Veeco's board of directors also unanimously determined that the amendments to Veeco's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Veeco common stock from 60,000,000 to 175,000,000 and to change the name of Veeco Instruments Inc. to Veeco FEI Inc. are advisable and recommends that Veeco stockholders vote to approve them.

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THE FEI SPECIAL MEETING

Date, Time and Place of FEI Special Meeting

The FEI special meeting will be held at _____ a.m. (local time), on _____, _____, 2002, at _____.

Purpose

The purpose of the FEI special meeting is to approve the merger. FEI shareholders may also be asked to consider and vote upon such other matters as may be properly brought before the FEI special meeting or any adjournments or postponements of the FEI special meeting. Any adjournment or postponement could be used for the purpose of allowing additional time for soliciting additional votes to approve the merger.

Record Date and Outstanding Shares

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Only holders of record of FEI common stock at the close of business on _____, 2002, the FEI record date, are entitled to notice of, and to vote at, the FEI special meeting. As of the FEI record date, there were approximately _____ FEI shareholders of record holding an aggregate of approximately _____ shares of FEI common stock.

On or about _____, 2002, this joint proxy statement/prospectus, which includes a notice satisfying the applicable requirements of Oregon law, is being mailed to all FEI shareholders of record as of the FEI record date.

Voting and Solicitation

At the FEI special meeting, each shareholder will be entitled to one vote for each share of FEI common stock held by such shareholder. FEI's Restated Bylaws provide that the presence of the holders of a majority of all of the FEI common stock entitled to vote, whether present in person or represented by proxy, shall constitute a quorum for the transaction of business at the FEI special meeting. Under the Oregon Business Corporation Act, the holders of a majority of the shares of FEI common stock entitled to vote must vote "**FOR**" the approval of the merger in order for the merger to be approved by FEI's shareholders.

Shares of FEI common stock that are voted "FOR," "AGAINST" or "ABSTAIN" with respect to a matter, or are broker non-votes, will be treated as being present at the FEI special meeting for purposes of establishing a quorum. For purposes of obtaining the required vote of a majority of the shares of FEI common stock entitled to vote to approve the merger, the effect of an abstention or a broker non-vote is the same as a vote against the proposal.

To vote by proxy, you should complete your proxy card and mail it in the enclosed postage prepaid envelope.

If your shares are held in an account at a brokerage firm or bank, you must direct them on how to vote your shares. Your broker or bank will vote your shares only if you provide directions on how to vote by following the instructions provided to you by your broker or bank.

Directors and executive officers of FEI and PBE, FEI's largest shareholder, who collectively held approximately 27.4% of FEI's outstanding common stock, as of June 30, 2002, have entered into voting agreements with Veeco under which they have agreed to vote their shares of FEI common stock in favor of the approval of the merger. These FEI shareholders, however, may vote their FEI shares in favor of a Superior FEI Proposal or related FEI Acquisition Transaction. These FEI shareholders also

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have granted Veeco irrevocable proxies to vote their FEI common stock in this manner. See the section titled "Other Agreements Voting Arrangements with FEI Shareholders" beginning on page 96.

All valid proxies received prior to the FEI special meeting will be voted. All shares represented by a proxy will be voted, and where a shareholder specifies by means of the proxy a choice ("FOR," "AGAINST" or "ABSTAIN") with respect to any matter to be acted upon, the shares of FEI common stock will be voted in accordance with the specification so made. **If no choice is indicated on the proxy, the shares of FEI common stock will be voted "FOR" the approval of the merger (other than instances of broker non-votes, which shares will not be voted).**

The cost of this solicitation to FEI shareholders will be borne by FEI. FEI has retained Georgeson, to solicit proxies. Georgeson may contact FEI shareholders by mail, telephone, telex, telegraph and personal interviews. Georgeson will receive from FEI a fee of \$9,000 for its services, plus reimbursement of out-of-pocket expenses. FEI has agreed to indemnify Georgeson against certain liabilities and expenses in connection with such solicitation, including liabilities under the federal securities laws. In addition, FEI may reimburse brokerage firms, banks and other fiduciaries representing beneficial owners of FEI common stock for expenses incurred in forwarding solicitation material to such beneficial owners. Proxies may also be solicited by certain of FEI's directors, officers and regular employees, personally or by telephone or telecopier. Such persons will not receive additional compensation, but may be reimbursed for reasonable out-of-pocket expenses incurred in connection with such solicitations.

Any FEI shareholder giving a proxy has the power to revoke it at any time prior to the vote by taking any of the following actions:

Filing a written notice of revocation dated after the date of the proxy with FEI's secretary, Bradley J. Thies, in care of FEI Company at 7451 NW Evergreen Parkway, Hillsboro, OR 97124-5830, at or before the vote at the special meeting;

Signing a duly executed proxy bearing a later date relating to the same shares, and delivering it to FEI's secretary before the special meeting; or

Attending the special meeting and voting in person.

You should not send in any FEI stock certificates with your proxy card. The exchange agent will mail a transmittal letter to you containing instructions for the surrender of your FEI stock certificates as soon as practicable after the completion of the merger.

Recommendation of FEI's Board of Directors

FEI's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its shareholders. After careful consideration, FEI's board of directors unanimously recommends that FEI's shareholders vote in favor of the approval of the merger.

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THE MERGER

This section of the joint proxy statement/prospectus describes the proposed merger. While FEI and Veeco believe that the description covers the material terms of the merger and the related transactions, this summary may not contain all of the information that is important to you. You should read this entire joint proxy statement/prospectus, including its Appendices and the other documents referred to herein, carefully for a more complete understanding of the merger.

Background of the Merger

The merger agreement and the terms and conditions of the merger are the result of negotiations between representatives of Veeco and FEI. The following summary describes the background of these negotiations.

From time to time, both Veeco and FEI have conducted preliminary discussions with numerous merger and acquisition candidates. Before October 2001, Edward H. Braun, Chairman, Chief Executive Officer and President of Veeco, and Vahé A. Sarkissian, Chairman, Chief Executive Officer and President of FEI, were familiar with one another and had come into contact with one another at industry trade shows, various conventions and in various other circumstances. In addition, prior to his employment at FEI, Mr. Sarkissian provided consulting services to Veeco on certain discrete projects.

On several occasions over the past several years, Mr. Braun and Mr. Sarkissian had discussed the possibility of a business combination or strategic relationship involving Veeco and FEI. However, on each occasion, these discussions were terminated and did not result in any further actions relating to any such business combination or strategic relationship.

During October and November 2001, Mr. Braun and Mr. Sarkissian had preliminary conversations and exchanged general information about Veeco's and FEI's businesses and the general possibility of a business combination was suggested. During December 2001 and January 2002, these discussions continued and Messrs. Braun and Sarkissian agreed to continue their discussions regarding a proposed strategic combination of Veeco and FEI.

On January 21 and 22, 2002, Mr. Braun and Mr. Sarkissian met in person in San Jose, California. The meeting focused on the two companies' business operations and strategy, whether a cultural fit existed between the two companies and how the two companies could be integrated. At this meeting, Mr. Braun made a proposal to Mr. Sarkissian regarding a potential business combination involving Veeco and FEI.

In January 2002, Veeco retained Salomon Smith Barney Inc. to act as its financial advisor in connection with a possible business combination with FEI and to assist Veeco in evaluating the proposed combination. Salomon Smith Barney had previously, from time to time, assisted Veeco in evaluating potential strategic relationships.

On January 25, 2002, FEI engaged Credit Suisse First Boston to act as its financial advisor in connection with a potential strategic transaction with Veeco.

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On January 25, 2002, at its regularly scheduled board meeting, the Veeco board of directors discussed the potential transaction with FEI, among other things. The board determined that management should continue to evaluate and pursue the potential transaction with FEI.

On February 28, 2002, Veeco and FEI entered into a Mutual Confidentiality Agreement in connection with their ongoing negotiations and due diligence activities.

On March 16, 2002, the FEI board of directors met and discussed, among other things, the possibility of entering into a transaction with Veeco. The board considered background materials on

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Veeco presented by management, including information on its business and markets, historical financial results and the trading history of its common stock.

On March 18 and 19, 2002, Messrs. Braun and Sarkissian met in New York, New York to further discuss FEI's and Veeco's businesses, the markets served by each company and how FEI and Veeco might complement each other as part of a combined entity. The parties also discussed the structure of a potential transaction, as well as roles of senior officers, the potential exchange ratio for the transaction, the potential management of the combined company and other general matters.

Between March 15 and April 9, 2002, discussions took place between certain of Veeco's and FEI's senior management personnel during which they reviewed the product offerings, markets served and technologies of each company, as well as the financial results and condition of each business. Also during this period, representatives of Veeco's and FEI's senior management engaged in discussions relating to the terms and conditions of a possible business combination. In addition, Veeco's outside legal counsel, Kaye Scholer LLP, had discussions with FEI's outside legal counsel, Wilson Sonsini Goodrich & Rosati, regarding the scope of the mutual due diligence to be conducted.

In March 2002, Veeco retained Ernst & Young LLP to perform certain accounting and financial due diligence services for it in connection with the proposed merger.

The discussions in late March and early April led to meetings involving members of senior management of each of Veeco and FEI and their outside legal and financial advisors in San Francisco, California on April 10 and 11, 2002. The main purpose of these meetings was for the management of each of the companies to meet each other and to become familiar with the business and operations of the other. At the meetings, members of management of each of Veeco and FEI presented an overview highlighting their respective operations, product positioning, technology, research and development efforts and results of operations and financial condition. Members of both Veeco's and FEI's outside legal and financial advisors were also present at the meetings.

Between April 10 and July 11, 2002:

The companies and their respective outside advisors conducted extensive due diligence, including evaluations of various accounting, tax, employee benefits, intellectual property, legal, environmental and other matters related to FEI and Veeco;

The financial advisors continued evaluating the financial terms of the proposed transaction;

Management of both companies met to discuss combining operations of the two companies; and

Negotiations continued on the terms and conditions of the business combination agreements.

On April 15, 2002, Kaye Scholer LLP delivered an initial draft of the merger agreement to FEI and Wilson Sonsini Goodrich & Rosati. Also on April 15, 2002, Merchant & Gould, LLP was retained by Veeco to conduct due diligence with respect to the intellectual property held and/or licensed by FEI.

On April 18, 2002, in a special meeting of the FEI board of directors, FEI management, Wilson Sonsini Goodrich & Rosati and Credit Suisse First Boston reviewed with the FEI board of directors the transaction terms proposed by Veeco. In addition, Wilson Sonsini Goodrich & Rosati reviewed with the board of directors their fiduciary duties in connection with the proposed transaction. FEI's board of directors

considered the proposed transaction and determined that management should continue to evaluate and pursue the potential business combination.

On April 25, 2002, Veeco's board of directors held a meeting at which the directors discussed, among other things, the terms of the proposed merger transaction, valuation issues regarding the merger and issues requiring additional due diligence. Veeco's management discussed with the board of directors the business of FEI and the potential benefits to Veeco and its stockholders of a business combination with FEI. Management also explained the need to authorize additional capital stock for

Veeco in order to provide the ability to pursue acquisitions such as the merger with FEI and for other corporate purposes. At this meeting, representatives of Salomon Smith Barney reviewed the strategic rationale, financial terms and structure of the proposed merger.

On April 30, 2002, Mr. Braun, Mr. Rein and Veeco board members, Messrs. Richard D'Amore, Roger McDaniel and Walter Scherr, and Mr. Sarkissian and FEI board members, Messrs. Michael Attardo, William Curran and Gerhard Parker, met in New York, New York to further discuss the two companies' business operations and strategy and the feasibility of integrating the two companies.

From May 1 through May 3, 2002, Veeco's management and Kaye Scholer LLP discussed the status of negotiations and identified outstanding issues in connection with the potential merger and representatives of Veeco separately discussed various business and valuation issues with FEI, Credit Suisse First Boston and Salomon Smith Barney.

On May 7, 2002, the FEI board of directors held a special meeting to discuss the potential transaction. At the meeting, FEI management, Wilson Sonsini Goodrich & Rosati, Credit Suisse First Boston and Deloitte & Touche, FEI's independent accounting firm, updated FEI's directors on their due diligence investigations and reviewed the terms of the proposed transaction, based upon the proposed definitive agreement and other materials previously circulated to the board. This meeting included a discussion of the material terms of the proposed transaction. FEI's board of directors discussed the proposed transaction and determined to continue to evaluate and pursue the proposed business combination further.

From May 2002 through July 2002, Veeco, FEI and PBE held discussions regarding, and negotiated the principal terms and conditions of, a voting agreement between Veeco and PBE and an investor agreement among Veeco, FEI and PBE. During this period Veeco and FEI, and their respective financial advisors, held discussions for the purposes of negotiating the transaction exchange ratio and board composition of the combined company.

On May 16, 2002, the FEI board of directors held a special meeting to discuss the proposed transaction. At the meeting, Wilson Sonsini Goodrich & Rosati reviewed with FEI's board of directors its fiduciary duties in connection with the proposed transaction and the status of the transaction negotiations. In addition, Credit Suisse First Boston updated the board on negotiations regarding the exchange ratio. Wilson Sonsini Goodrich & Rosati and Credit Suisse First Boston also reviewed with FEI's board of directors certain measures that FEI could take to deter an inadequate or coercive takeover of the company. FEI's board of directors considered the proposed transaction and determined that management should continue to evaluate and pursue the business combination with Veeco.

On May 20, 2002, Mr. Braun and Mr. Sarkissian met in San Francisco, California to discuss the proposed transaction and roles for senior managers, the integration process, integration teams and a preliminary organizational chart.

On May 22, 2002, the Veeco board of directors held a special meeting to discuss the proposed merger. At that meeting, Mr. Braun reviewed the proposed roles of Chief Executive Officer and Chairman, the markets that the combined company would serve and products that the combined company would offer, and the benefits and risks of the proposed merger. Mr. Rein discussed the financial situation of Veeco and FEI and reviewed the status of due diligence efforts and accounting considerations, including the significance of which entity would be the continuing entity for accounting purposes. Representatives of Salomon Smith Barney reviewed the potential effects of the proposed merger on the combined company.

On May 24, 2002, the FEI board of directors held a special meeting to discuss the transaction. Wilson Sonsini Goodrich & Rosati again reviewed with FEI's board of directors its fiduciary duties in connection with the proposed transaction, the negotiations on the definitive agreements that had taken place to date and the results of the due diligence process. Management reviewed with FEI's board of

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directors the potential near-term and long-term synergies of the transaction, the negotiations concerning the exchange ratio for the transaction, the negotiations concerning the composition of Veeco FEI's board of directors and management of the combined company. Deloitte & Touche reviewed with FEI's board of directors certain accounting determinations that would be made in connection with the transaction, in particular, the accounting treatment of the combined entity. Credit Suisse First Boston reviewed with FEI's board of directors certain financial parameters of the transaction, as well as estimated pro forma financial data for the combined company and potential risks to FEI of the transaction and of remaining a stand-alone entity. Credit Suisse First Boston also summarized the recent negotiations with Veeco regarding the proposed exchange ratio and the discussions relating to the historical trading prices of the two companies' common stock. FEI's board of directors further considered the proposed transaction and determined that management should continue to evaluate and pursue the business combination. Following the meeting, the compensation committee of FEI's board of directors met to discuss the current employment terms for Messrs. Sarkissian and Braun and various potential approaches to their employment terms in connection with the proposed transaction.

On May 30, 2002, Salomon Smith Barney submitted to Credit Suisse First Boston, on behalf of Veeco, a revised proposal regarding the combination of Veeco and FEI.

On May 31, 2002, the parties discussed a proposed exchange ratio of 1.355 shares of Veeco common stock for each share of FEI common stock.

On June 4, 2002, the compensation committee of FEI's board of directors met to further discuss potential employment terms for Messrs. Sarkissian and Braun. At the meeting, Wilson Sonsini Goodrich & Rosati updated the compensation committee on the discussions between Veeco and FEI regarding potential employment terms.

On June 6, 2002, the Veeco board of directors held a special meeting to discuss the proposed merger. Mr. Braun reviewed the key terms of the proposed merger. Mr. Rein discussed the continuing accounting entity considerations and Veeco's plan to submit a letter to the SEC to confirm Veeco's determination that, based on the proposed structure of the merger, Veeco would be the continuing accounting entity. Mr. Rein also reviewed the status of due diligence and the negotiation of the definitive merger agreement.

On June 10, 2002, members of the management teams of Veeco and FEI met in New York, New York to further discuss the potential business combination and specific terms of the transaction.

On June 19, 2002, FEI held another special meeting of its board of directors to discuss the proposed transaction. At the meeting, management, along with Wilson Sonsini Goodrich & Rosati, Credit Suisse First Boston and Deloitte & Touche, discussed with FEI's board of directors the status of the negotiations and, in particular, the accounting determination to be made in connection with the proposed transaction relating to the accounting treatment of the combined entity.

On June 21, 2002, Veeco submitted a letter to the Staff of the SEC regarding its accounting determination that Veeco would be the acquiring entity for accounting purposes in the merger and sought the Staff's concurrence with this position.

On June 27, 2002, Veeco and FEI, together with Kaye Scholer LLP and Wilson, Sonsini Goodrich & Rosati and representatives from Ernst & Young LLP, Veeco's outside auditors, participated in a conference call with the Staff of the SEC to answer the Staff's questions regarding this determination. In response to a request made by the SEC Staff, an additional submission was made by Veeco to the SEC on June 28, 2002.

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On July 8, 2002, Veeco received confirmation from the Staff of the SEC that it would not object to Veeco's determination that Veeco would be the acquiring entity for accounting purposes following the merger.

On July 9, 2002, Veeco's board of directors held a meeting at which the board reviewed the terms of the revised merger agreement and ancillary agreements as well as the results of the due diligence review of FEI. During this meeting, Mr. Braun and Kaye Scholer LLP outlined the principal terms and conditions of the merger agreement, the voting agreements, the investor agreement and the other ancillary agreements, and answered questions posed by the board. Representatives from Salomon Smith Barney answered questions posed by the board and made a presentation regarding the financial terms of the merger. At the conclusion of the presentation, Salomon Smith Barney delivered to Veeco's board of directors an oral opinion, which opinion was confirmed by delivery of a written opinion dated July 11, 2002, the date of the merger agreement, to the effect that as of such date and based on and subject to the matters described in its opinion, the exchange ratio was fair, from a financial point of view, to Veeco. After a comprehensive review and discussion of the potential merger, Veeco's board of directors unanimously approved the merger, the merger agreement and the transactions contemplated thereby and determined that the merger was advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders. The

board also authorized the amendment to Veeco's rights agreement to provide that the merger would not trigger the rights issued under that agreement. On July 10, 2002, the compensation committee of Veeco's board of directors held a meeting to further discuss the proposed employment terms for Messrs. Braun and Sarkissian.

On July 10, 2002, FEI's board of directors held a special meeting regarding the potential transaction. At the meeting, representatives of Wilson Sonsini Goodrich & Rosati again reviewed with FEI's board of directors its fiduciary duties in connection with the transaction and the final proposed terms of the definitive agreements. Representatives of Credit Suisse First Boston reviewed with FEI's board of directors financial analyses prepared in connection with its fairness opinion. Credit Suisse First Boston then delivered to FEI's board of directors its oral opinion, which opinion was subsequently confirmed in writing on July 11, 2002, the date of the merger agreement, to the effect that, as of the date of the opinion and based upon and subject to the various considerations described in its opinion, the exchange ratio provided for in the merger was fair, from a financial point of view, to the holders of FEI common stock, other than PBE and its affiliates. Following these presentations and discussion, FEI's board of directors unanimously determined that the merger was advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its shareholders and unanimously approved the merger, merger agreement and related transactions.

On July 11, 2002, Mr. Braun met with Mr. Sarkissian in New York to confirm that all transaction issues had been resolved and that all terms of the transaction had been agreed upon.

On the evening of July 11, 2002, the parties executed the merger agreement, the voting agreements, the investor agreement and the other ancillary agreements.

On July 12, 2002, Veeco and FEI issued a joint press release announcing the agreement before the opening of The Nasdaq National Market.

Veeco's Reasons for the Merger

Veeco's board of directors believes that the merger is in the best interests of Veeco's stockholders and that the terms of the merger are fair, from a financial point of view, to Veeco and Veeco's stockholders. Veeco's board of directors came to its conclusion based upon a number of factors including the current financial condition and results of operations, as well as the prospects and future strategy, of Veeco and the risks involved in achieving those prospects and objectives without a strategic partner, and the factors described below. In particular, the Veeco board of directors, in its

deliberations, focused on the current and expected trends in the semiconductor and data storage industries generally.

Veeco's board of directors believes that the merger is consistent with Veeco's objectives and strategies to gain access to new markets, technologies and products in order to maintain and expand its competitive position and that the merger will create a stronger company, both from a financial and an operational standpoint.

In rendering its decision, Veeco's board of directors, in addition to considering the anticipated benefits described above, consulted with Veeco's management, outside legal counsel and financial advisor and considered many other potential material factors that it believed made the merger advisable and that could contribute to the long-term success of Veeco, including that the merger would:

Improve Veeco's ability to provide more comprehensive product solutions for the data storage, semiconductor, telecommunications/wireless and scientific research industries;

Lessen Veeco's present and future dependency on major customers because of an increased customer base;

Create a combined company with the critical mass and global presence to better serve the needs of Veeco's customers and potentially deepen its relationships with these customers;

Expand Veeco's product line with complementary metrology technologies;

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Enhance Veeco's research and development efforts and improve its ability to bring new products to market;

Enhance Veeco's purchasing power with its supplier base because of its increased size and buying power; and

Enhance Veeco's management team, therefore positioning the combined company to take advantage of future growth opportunities.

Veeco's board of directors also considered the following:

Information concerning Veeco's and FEI's respective businesses, historical financial performance and condition, operations, technology, products, strategic partners, customers, competitive positions, prospects and management;

Current financial market conditions and the historical market prices, volatility and trading information of Veeco and FEI common stock;

The financial and other terms of the proposed merger, including the consideration to be paid to FEI securityholders in the merger, the relationship between the market value of Veeco and FEI common stock and a comparison of comparable merger transactions;

The opinion of Salomon Smith Barney dated July 11, 2002 to the effect that, as of such date and based on and subject to the matters described in its opinion, the exchange ratio was fair, from a financial point of view, to Veeco. The full text of Salomon Smith Barney's opinion is attached to this joint proxy statement/prospectus as Appendix E. See the section titled "The Merger Opinion of Veeco's Financial Advisor" beginning on page 50;

The combined company will have a board of directors composed of thirteen members, seven members nominated by Veeco, five members nominated by FEI and one member nominated by PBE;

The terms and conditions of the merger agreement and related agreements which had been negotiated with FEI and others;

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The likelihood that the merger would be completed, including the limited conditions to the closing of the merger;

The potential impact of the merger on strategic partners, customers and employees of Veeco and FEI;

The likely reaction to the merger in the financial markets; and

Reports from management, legal and financial and other advisors as to the results of the due diligence review of FEI.

Veeco's board of directors also considered that the merger was expected, based upon its evaluation of the prospects of the companies, to be accretive to industry analysts' consensus estimates for Veeco FEI's pro forma earnings per share for the year ending December 31, 2003.

Veeco's board of directors also considered the potential risks and disadvantages of the merger, including, but not limited to, the following:

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A significant portion of FEI's sales are attributable to the data storage and semiconductor industries, as is the case with Veeco. Accordingly, following the merger, the combined company would be heavily dependent on the data storage and semiconductor industries. The data storage and semiconductor industries have been characterized by cyclicality. As a result, Veeco may experience greater period-to-period fluctuations in future operating results due to general industry conditions or events occurring in the general economy than it would otherwise experience;

The risk that the potential synergies and other benefits sought in the merger might not be fully realized;

The challenges of integrating the management teams, strategies, cultures and organizations of the companies;

The risk that key management and other personnel might not remain employed by FEI or the combined company following the merger;

Risks associated with fluctuations in Veeco's stock price and FEI's stock price prior to closing of the merger;

The risk of disruption of sales momentum as a result of uncertainties created by the announcement of the merger;

The possibility that the merger might not be consummated, even if approved by each company's stockholders, including the possible effect of the termination fee;

The substantial charges to be incurred in connection with the merger, including costs of integrating the businesses and transaction expenses arising from the merger;

Other applicable risks described in this joint proxy statement/prospectus in the section titled "Risk Factors" beginning on page 14;

The substantial dilution in the percentage of the ownership of Veeco's common stock to existing Veeco stockholders that will result from the issuance of Veeco common stock in the merger; and

The decreased likelihood that Veeco would receive a third-party acquisition proposal because of the termination fee and, to a lesser extent, the voting agreements.

The foregoing discussion of the information and factors considered by the Veeco board of directors is not intended to be exhaustive but is believed to include the material factors considered by the Veeco board of directors in connection with its review of the proposed merger. In view of the wide variety of

factors considered in connection with its evaluation of the merger, Veeco's board of directors did not find it practicable to, and did not, quantify or otherwise attempt to assign relative weights to different factors considered in reaching its determination. Rather, the Veeco board of directors viewed its position and recommendations as being based on the totality of the information presented to, and considered by, the Veeco board of directors. In addition, individual members of Veeco's board of directors may have given different weights to different factors. All of the factors described above were carefully considered by Veeco's management and board of directors. Based on the above-described analysis, Veeco's board of directors has determined that the terms of the merger are advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and Veeco's stockholders and has made the recommendation set forth below.

FEI's Reasons for the Merger

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The FEI board of directors approved the merger agreement and the transactions contemplated by the merger agreement because it determined that the combined company would have the potential to realize a stronger competitive position and improved long-term operating and financial results. The FEI board of directors came to its conclusion after considering a number of factors both for and against recommending the merger as described below.

During the course of its deliberations, FEI's board of directors considered a number of factors that it believed made the merger advisable and could contribute to the long-term success of the combined company. These factors include the potential that the merger will:

Create a combined company with greater critical mass, stronger global presence and broader sales channels to better serve the needs of FEI's customers and deepen its relationships with these customers;

Expand FEI's product lines with complementary technologies;

Enable the combined company to have a stronger presence in FEI's core target markets;

Enhance the combined company's technology portfolio and research and development resources and improve its ability to bring new products and solutions to market;

Improve FEI's ability to provide more comprehensive product solutions for the semiconductor, data storage, telecommunications/wireless and scientific research industries;

Enhance FEI's purchasing power with its supplier base because of the combined company's increased size and buying power; and

Strengthen the management team to position the combined company to take advantage of future growth opportunities.

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FEI's board of directors further considered:

FEI's prospects and future strategy as a stand-alone entity and potential alternative strategies;

The terms and conditions of the merger agreement and related agreements that had been negotiated with Veeco and PBE;

The oral opinion rendered by Credit Suisse First Boston, as subsequently confirmed in writing on July 11, 2002, to the effect that, as of the date of the opinion and based on and subject to the various considerations described in the opinion, the exchange ratio was fair, from a financial point of view, to the holders of FEI common stock, other than PBE and its affiliates. The full text of Credit Suisse First Boston's opinion is attached to this joint proxy statement/prospectus as Appendix D;

The fact that the consideration to be offered to FEI shareholders as of the signing of the merger agreement on July 11, 2002, implies premiums relative to FEI's closing share price one day, one week, and four weeks prior to July 11, 2002, the date of the announcement of the execution of the merger agreement, of 48%, 39%, and 28% respectively; and

That the merger is expected to be tax-free to FEI shareholders (except for tax on gain resulting from the receipt of cash paid by Veeco instead of fractional shares) for federal income tax purposes.

In making its ultimate determinations to enter into the merger agreement, the FEI board of directors also considered the potential risks and disadvantages of the merger, including, but not limited to, the following:

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The combined company's continued dependence on certain markets;

The current depressed condition of the telecommunications equipment market and the risk that there will not be significant recovery in that market;

The risk that the potential synergies and other benefits sought in the merger might not be fully realized;

The challenges of integrating the management teams, strategies, cultures and organizations of the companies;

The risk that key management and other personnel might not remain employed by FEI or the combined company;

The risk of a fixed exchange ratio and the risk that Veeco's stock price could decline prior to, or after, the closing of the merger;

The risk of disruption of sales momentum as a result of uncertainties created by the announcement of the merger;

The possibility that the merger might not be consummated, even if approved by each company's stockholders;

The substantial charges to be incurred in connection with the merger, including costs of integrating the businesses and transaction expenses arising from the merger;

The decreased likelihood that FEI would receive a third-party acquisition proposal due to certain terms of the merger agreement and voting agreements; and

Other applicable risks described in this joint proxy statement/prospectus in the section titled "Risk Factors."

In view of the wide variety of factors considered in connection with its evaluation of the merger, the FEI board of directors did not find it practicable to, and did not, quantify or otherwise attempt to

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assign relative weights to different factors considered in reaching its determination. In addition, individual members of FEI's board of directors may have given different weights to different factors and may have considered other factors. The foregoing list of factors is not exhaustive.

Recommendation of Veeco's Board of Directors

Veeco's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders and has determined that the proposed amendments to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock and to change the name of Veeco Instruments Inc. to Veeco FEI Inc. are advisable. After careful consideration, the Veeco board of directors unanimously recommends that Veeco stockholders vote "**FOR**" approval of the issuance of Veeco common stock in the merger and "**FOR**" the approval of the amendments to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock from 60,000,000 shares to 175,000,000 shares and to change the name of Veeco Instruments Inc. to Veeco FEI Inc. As of the Veeco record date, members of Veeco's board of directors and management of Veeco held (together with entities with which they are affiliated), in the aggregate, approximately % of the outstanding Veeco common stock.

Recommendation of FEI's Board of Directors

FEI's board of directors unanimously has approved the merger, the merger agreement and the transactions contemplated thereby and has determined that the merger is advisable, consistent with and in furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its shareholders. After careful consideration, FEI's board of directors unanimously recommends that FEI shareholders vote "**FOR**" the approval of the merger. As of the FEI record date, members of FEI's board of directors and management of FEI held (together with entities with which they are affiliated) in the aggregate, approximately % of the outstanding FEI common stock.

Opinion of Veeco's Financial Advisor

Veeco retained Salomon Smith Barney Inc. to act as its financial advisor in connection with the proposed merger. In connection with this engagement, Veeco requested that Salomon Smith Barney evaluate the fairness, from a financial point of view, to Veeco of the exchange ratio

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provided for in the merger. On July 9, 2002, at a meeting of the Veeco board of directors held to evaluate the proposed merger, Salomon Smith Barney delivered to the Veeco board of directors an oral opinion, which opinion was confirmed by delivery of a written opinion dated July 11, 2002, the date of the merger agreement, to the effect that, as of that date and based on and subject to the matters described in its opinion, the exchange ratio was fair, from a financial point of view, to Veeco.

In arriving at its opinion, Salomon Smith Barney:

Reviewed the merger agreement;

Held discussions with senior officers, directors and other representatives and advisors of Veeco and with senior officers and other representatives and advisors of FEI concerning the businesses, operations and prospects of Veeco and FEI;

Examined publicly available business and financial information relating to Veeco and FEI;

Examined financial forecasts and other information and data for Veeco and FEI, which were provided to or otherwise discussed with Salomon Smith Barney by the managements of Veeco and FEI, including information relating to the potential strategic implications and operational benefits anticipated by the managements of Veeco and FEI to result from the merger;

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Reviewed the financial terms of the merger as described in the merger agreement in relation to, among other things, current and historical market prices and trading volumes of Veeco common stock and FEI common stock, the historical and projected earnings and other operating data of Veeco and FEI, and the capitalization and financial condition of Veeco and FEI;

Considered, to the extent publicly available, the financial terms of other transactions effected which it considered relevant in evaluating the merger;

Analyzed financial, stock market and other publicly available information relating to the businesses of other companies whose operations it considered relevant in evaluating those of Veeco and FEI;

Evaluated the potential pro forma financial impact of the merger on Veeco; and

Conducted other analyses and examinations and considered other financial, economic and market criteria as it deemed appropriate in arriving at its opinion.

In rendering its opinion, Salomon Smith Barney assumed and relied, without independent verification, on the accuracy and completeness of all financial and other information and data publicly available or furnished to or otherwise reviewed by or discussed with it. With respect to financial forecasts and other information and data relating to Veeco and FEI provided to or otherwise discussed with Salomon Smith Barney, the managements of Veeco and FEI advised Salomon Smith Barney that the forecasts and other information and data were reasonably prepared on bases reflecting the best currently available estimates and judgments of the managements of Veeco and FEI as to the future financial performance of Veeco and FEI and the potential strategic implications and operational benefits anticipated to result from the merger, including the amount, timing and achievability of those strategic implications and operational benefits.

Salomon Smith Barney assumed, with Veeco's consent, that the merger will be consummated in accordance with its terms without waiver, modification or amendment of any material term, condition or agreement and that, in the course of obtaining the necessary regulatory or third party approvals and consents for the merger, no delay, limitation, restriction or condition will be imposed that would have an adverse effect on Veeco or FEI or the contemplated benefits of the merger. Salomon Smith Barney also assumed, with Veeco's consent, that the merger will be treated as a tax-free reorganization for federal income tax purposes. Salomon Smith Barney's opinion relates to the relative values of Veeco and FEI. Salomon Smith Barney did not express any opinion as to what the value of the Veeco common stock actually will be when issued in the merger or the prices at which the FEI common stock will trade or otherwise be transferable at any time. Salomon Smith Barney did not make and was not provided with an independent evaluation or appraisal of the assets or liabilities, contingent or otherwise, of Veeco or FEI, and Salomon Smith Barney did not make any physical inspection of the properties or assets of Veeco or FEI.

Salomon Smith Barney expressed no view as to, and its opinion does not address the relative merits of the merger as compared to any alternative business strategies that might exist for Veeco or the effect of any other transaction in which Veeco might engage. Salomon Smith Barney's opinion was necessarily based on information available, and financial, stock market and other conditions and circumstances existing

and disclosed to Salomon Smith Barney, as of the date of its opinion. Although Salomon Smith Barney evaluated the exchange ratio from a financial point of view, Salomon Smith Barney was not asked to and did not recommend the specific consideration payable in the merger, which was determined through negotiations between Veeco and FEI. Veeco imposed no other instructions or limitations on Salomon Smith Barney with respect to the investigations made or procedures followed by Salomon Smith Barney in rendering its opinion.

The full text of Salomon Smith Barney's written opinion dated July 11, 2002, which describes the assumptions made, matters considered and limitations on the review undertaken, is attached to this joint proxy statement/prospectus as [Appendix E](#) and is incorporated into this joint proxy statement/

prospectus by reference. You should read this opinion carefully and in its entirety in connection with this joint proxy statement/prospectus. Salomon Smith Barney's opinion is directed to the Veeco board of directors and relates only to the fairness of the exchange ratio from a financial point of view, does not address any other aspect of the merger or any related transaction and does not constitute a recommendation to any stockholder with respect to any matters relating to the proposed merger.

In preparing its opinion, Salomon Smith Barney performed a variety of financial and comparative analyses, including those described below. The summary of these analyses is not a complete description of the analyses underlying Salomon Smith Barney's opinion. The preparation of a fairness opinion is a complex analytical process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances and, therefore, a fairness opinion is not readily susceptible to summary description. Accordingly, Salomon Smith Barney believes that its analyses must be considered as a whole and that selecting portions of its analyses and factors or focusing on information presented in tabular format, without considering all analyses and factors or the narrative description of the analyses, could create a misleading or incomplete view of the processes underlying its analyses and opinion.

In its analyses, Salomon Smith Barney considered industry performance, general business, economic, market and financial conditions and other matters existing as of the date of its opinion, many of which are beyond the control of Veeco and FEI. No company, business or transaction used in those analyses as a comparison is identical to Veeco, FEI or the proposed merger, and an evaluation of those analyses is not entirely mathematical. Rather, the analyses involve complex considerations and judgments concerning financial and operating characteristics and other factors that could affect the acquisition, public trading or other values of the companies or business segments analyzed.

The estimates contained in Salomon Smith Barney's analyses and the valuation ranges resulting from any particular analysis are not necessarily indicative of actual values or predictive of future results or values, which may be significantly more or less favorable than those suggested by its analyses. In addition, analyses relating to the value of businesses or securities do not necessarily purport to be appraisals or to reflect the prices at which businesses or securities actually may be sold. Accordingly, Salomon Smith Barney's analyses and estimates are inherently subject to substantial uncertainty.

Salomon Smith Barney's opinion and analyses were only one of many factors considered by the Veeco board of directors in its evaluation of the merger and should not be viewed as determinative of the views of the Veeco board of directors or management with respect to the exchange ratio or the proposed merger.

The following is a summary of the material financial analyses performed by Salomon Smith Barney in connection with the rendering of its opinion dated July 11, 2002. **The financial analyses summarized below include information presented in tabular format. In order to fully understand Salomon Smith Barney's financial analyses, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses. Considering the data in the tables below without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of Salomon Smith Barney's financial analyses.**

Selected Companies Analysis. Using publicly available information, Salomon Smith Barney reviewed the market values and trading multiples of Veeco, FEI and the following 11 selected publicly

held companies in the metrology and process control industry and the semiconductor capital equipment industry, in the later case, focusing on companies with market capitalizations of more than \$1.0 billion:

Metrology and Process Control

KLA-Tencor Corporation
 Nanometrics Incorporated
 Rudolph Technologies, Inc.
 Therma-Wave, Inc.
 Zygo Corporation

**Large Cap
 Semiconductor Capital Equipment**

Applied Materials, Inc.
 ASML Holding N.V.
 Axcelis Technologies, Inc.
 KLA-Tencor Corporation
 Lam Research Corporation
 Novellus Systems, Inc.
 Varian Semiconductor Equipment Associates, Inc.

All multiples were based on closing stock prices on July 8, 2002. Estimated financial data for the selected companies were based on publicly available research analysts' estimates. Estimated financial data for Veeco and FEI were based on, in the case of Veeco, internal estimates of Veeco's management and, in the case of FEI, internal estimates of FEI's management. Salomon Smith Barney reviewed firm values, calculated as equity value plus straight and convertible debt, straight and convertible preferred stock and minority interests, less cash and equity in unconsolidated affiliates, as a multiple of calendar years 2002 and 2003 estimated revenues and calendar year 2003 estimated earnings before interest, taxes, depreciation and amortization, commonly referred to as EBITDA. Salomon Smith Barney also reviewed equity market values as a multiple of calendar years 2002 and 2003 estimated earnings per share, commonly referred to as EPS. Salomon Smith Barney then applied a range of selected multiples derived from the selected companies to corresponding financial data of Veeco and FEI in order to derive implied equity reference ranges for Veeco and FEI. These implied equity reference ranges were then used to derive an implied exchange ratio reference range. This analysis indicated the following implied exchange ratio reference range, as compared to the exchange ratio provided for in the merger:

**Implied Exchange
 Ratio Reference Range**

0.88x 2.32x

**Merger
 Exchange Ratio**

1.355x

Precedent Transactions Analysis. Salomon Smith Barney reviewed the aggregate transaction values and implied transaction multiples in the following nine selected merger and acquisition transactions in the semiconductor capital equipment industry:

Acquiror

Applied Materials, Inc.
 ASM Lithography Holding N.V.
 Brooks Automation, Inc.
 KLA Instruments, Inc.
 Kulicke & Soffa Industries, Inc.
 Mattson Technology, Inc.
 MKS Instruments, Inc.
 Novellus Systems, Inc.
 Veeco

Target

Etec Systems, Inc.
 Silicon Valley Group, Inc.
 PRI Automation, Inc.
 Tencor Instruments, Inc.
 Cerprobe Corporation
 CFM Technologies, Inc.
 Applied Science & Technology, Inc.
 GaSonic International Corporation
 CVC, Inc.

All multiples for the selected transactions were based on publicly available information at the time of announcement of the relevant transaction. Salomon Smith Barney reviewed transaction values in the selected transactions as a multiple of latest 12 months revenue and equity market values in the selected transactions as a multiple of latest 12 months EPS. Salomon Smith Barney then applied a range of

selected multiples derived from the selected companies to corresponding financial data of Veeco and FEI in order to derive implied equity reference ranges for Veeco and FEI. These implied equity reference ranges were then used to derive an implied exchange ratio reference range. This analysis indicated the following implied exchange ratio reference range, as compared to the exchange ratio provided for in the merger:

**Implied Exchange
 Ratio Reference Range**

0.73x 1.75x

**Merger
 Exchange Ratio**

1.355x

Salomon Smith Barney also derived an implied exchange ratio reference range based upon the implied equity reference range for FEI, on the one hand, and the equity market value for Veeco based in the closing price of Veeco common stock on July 8, 2002, on the other hand. This analysis indicated the following implied exchange ratio reference range, as compared to the exchange ratio provided for in the merger:

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**Implied Exchange
Ratio Reference Range**

**Merger
Exchange Ratio**

0.93x 1.48x

1.355x

Contribution Analysis. Salomon Smith Barney reviewed the relative contributions of Veeco and FEI to the EBITDA, net income and earnings before interest, taxes and amortization of the combined company for estimated calendar years 2002 and 2003. Estimated financial data for Veeco and FEI were based on, in the case of Veeco, internal estimates of Veeco's management and, in the case of FEI, internal estimates of FEI's management. Salomon Smith Barney then derived an implied exchange ratio reference range based on the relative contributions of each of Veeco and FEI. This analysis indicated the following implied exchange ratio reference range, as compared to the exchange ratio provided for in the merger:

**Implied Exchange
Ratio Reference Range**

**Merger
Exchange Ratio**

1.42x 2.54x

1.355x

Historical Exchange Ratio Analysis. Salomon Smith Barney reviewed the ratio of the closing price of Veeco common stock to the closing price of FEI common stock on July 8, 2002 and the high, low and average of the daily ratios of the closing prices of Veeco common stock and FEI common stock over the 12-month, 90-day, 60-day and 30-day trading periods ended July 8, 2002. This analysis indicated the following, as compared to the exchange ratio provided for in the merger:

Period	Implied Exchange Ratio		
	High	Average	Low
July 8, 2002	0.940x		
Last 12 months	1.236x	0.988x	0.821x
Last 90 days	1.150x	0.968x	0.849x
Last 60 days	1.061x	0.923x	0.849x
Last 30 days	1.061x	0.946x	0.878x
Merger Exchange Ratio	1.355x		

Pro Forma Merger Analysis. Salomon Smith Barney reviewed the potential pro forma effect of the merger on Veeco's cash EPS for estimated calendar years 2002 and 2003, both before and after giving effect to potential cost savings or other synergies that may result from the merger. Estimated financial

data for Veeco and FEI were based on, in the case of Veeco, internal estimates of Veeco's management and, in the case of FEI, internal estimates of FEI's management. Based on the exchange ratio provided for in the merger, this analysis indicated that the merger could be accretive to Veeco's estimated cash EPS in each of the periods reviewed, both before and after giving effect to potential cost savings or other synergies that may result from the merger. The actual results achieved by the combined company may vary from projected results and the variations may be material.

Other Factors. In the course of preparing its opinion, Salomon Smith Barney also reviewed and considered other information and data, including:

historical trading prices and trading volumes for Veeco common stock and FEI common stock during the 12-month period preceding July 8, 2002;

a comparison of firm value to forward year revenue and equity value to forward year earnings for Veeco common stock, FEI common stock and the common stock of selected companies in the metrology and process control industry and selected companies in the semiconductor capital equipment industry with market capitalizations of more than \$1.0 billion;

the relationship between movements in Veeco common stock, FEI common stock and the Philadelphia Semiconductor Index;

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the implied multiples for Veeco on a stand-alone basis and FEI both on a stand-alone basis and in the merger based on various operational and financial metrics;

profiles of Veeco's shareholder base and FEI's shareholder base; and

selected publicly available research analysts' reports for Veeco and FEI.

Miscellaneous. Under the terms of its engagement, Veeco has agreed to pay Salomon Smith Barney customary fees for its financial advisory services in connection with the merger. Veeco also has agreed to reimburse Salomon Smith Barney for reasonable travel and other out-of-pocket expenses incurred by Salomon Smith Barney in performing its services, including the reasonable fees and expenses of its legal counsel, and to indemnify Salomon Smith Barney and related persons against liabilities, including liabilities under the federal securities laws, arising out of its engagement.

Salomon Smith Barney and its affiliates in the past have provided services to Veeco unrelated to the proposed merger for which Salomon Smith Barney and its affiliates have received compensation. In the ordinary course of business, Salomon Smith Barney and its affiliates may actively trade or hold the securities of Veeco and FEI for their own account or for the account of customers and, accordingly, may at any time hold a long or short position in these securities. In addition, Salomon Smith Barney and its affiliates, including Citigroup Inc. and its affiliates, may maintain relationships with Veeco, FEI and their affiliates.

Salomon Smith Barney is an internationally recognized investment banking firm and was selected by Veeco based on its reputation, experience and familiarity with Veeco and its business. Salomon Smith Barney regularly engages in the valuation of businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, competitive bids, secondary distributions of listed and unlisted securities, private placements and valuations for estate, corporate and other purposes.

Opinion of FEI's Financial Advisor

FEI retained Credit Suisse First Boston to act as its financial advisor in connection with the merger. In connection with Credit Suisse First Boston's engagement, FEI requested that Credit Suisse First Boston evaluate the fairness, from a financial point of view, of the merger exchange ratio to holders of FEI common stock, other than PBE and its affiliates. On July 10, 2002, the FEI board of directors met to review the proposed merger and the terms of the merger agreement. During this meeting, Credit Suisse First Boston reviewed with the FEI board of directors certain financial analyses,

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as described below, and rendered its oral opinion to the FEI board of directors, subsequently confirmed in writing on July 11, 2002, that, as of the date of its opinion and based upon and subject to the various considerations set forth in the Credit Suisse First Boston opinion, the merger exchange ratio was fair, from a financial point of view, to holders of FEI common stock, other than PBE and its affiliates.

The full text of the Credit Suisse First Boston opinion, which sets forth, among other things, assumptions made, procedures followed, matters considered and limitations on the scope of the review undertaken by Credit Suisse First Boston in rendering its opinion, is attached as Appendix D to this joint proxy statement/prospectus and is incorporated by reference in its entirety. FEI shareholders are urged to, and should, read the Credit Suisse First Boston opinion carefully and in its entirety. The Credit Suisse First Boston opinion addresses only the fairness, from a financial point of view, of the merger exchange ratio to holders of FEI common stock, other than PBE and its affiliates, as of the date of the Credit Suisse First Boston opinion, and does not constitute a recommendation to any shareholder as to how such shareholder should vote or act on any matter relating to the merger. The summary of the Credit Suisse First Boston opinion in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of the Credit Suisse First Boston opinion.

In connection with its opinion, Credit Suisse First Boston, among other things,

Reviewed the merger agreement and certain other related agreements;

Reviewed certain publicly available business and financial information relating to FEI and Veeco;

Reviewed certain other information relating to FEI and Veeco, including financial forecasts, provided by or discussed with FEI and Veeco, and met with the managements of FEI and Veeco to discuss the business and prospects of FEI and Veeco, respectively;

Considered certain financial and stock market data of FEI and Veeco and compared that data with similar data for other publicly held companies in businesses which Credit Suisse First Boston deemed similar to those of FEI and Veeco;

Considered, to the extent publicly available, the financial terms of certain other business combinations and other transactions which have recently been effected or announced; and

Considered such other information, financial studies, analyses and investigations and financial, economic and market criteria which Credit Suisse First Boston deemed relevant.

In connection with its review, Credit Suisse First Boston did not assume any responsibility for independent verification of any of the foregoing information and relied on such information being complete and accurate in all material respects. With respect to the publicly available financial forecasts that Credit Suisse First Boston reviewed, the managements of FEI and Veeco advised Credit Suisse First Boston, and Credit Suisse First Boston assumed, that such forecasts represent reasonable estimates and judgments as to the future financial performance of FEI and Veeco, respectively. With respect to the non-publicly available financial forecasts that Credit Suisse First Boston reviewed, the managements of FEI and Veeco advised Credit Suisse First Boston, and Credit Suisse First Boston assumed, that such forecasts represent the best currently available estimates and judgments of the managements of FEI and Veeco as to the future financial performance of FEI and Veeco, respectively. In addition, Credit Suisse First Boston relied upon, without independent verification, the assessments of the managements of FEI and Veeco as to:

The ability of FEI and Veeco to retain key employees;

The strategic benefits and potential cost savings (including the amount, timing and achievability of such benefits and savings) anticipated to result from the merger;

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The existing technology, products and services of FEI and Veeco and the validity of, and risks associated with, the future technology, products and services of FEI and Veeco; and

Their ability to integrate the businesses of FEI and Veeco.

The management of FEI informed Credit Suisse First Boston, and Credit Suisse First Boston assumed, that the merger will be treated as a tax-free reorganization for federal income tax purposes. Credit Suisse First Boston also assumed, with FEI's consent, that in the course of obtaining necessary regulatory and third party approvals and consents for the merger, no modification, delay, limitation, restriction or condition will be imposed that will have a material adverse effect on FEI or Veeco or the contemplated benefits of the merger and that the merger will be consummated in accordance with the terms of the merger agreement, without waiver, modification or amendment of any material term, condition or agreement contained in the merger agreement. Credit Suisse First Boston was not requested to make, and did not make, an independent evaluation or appraisal of the assets or liabilities (contingent or otherwise) of FEI or Veeco, nor was Credit Suisse First Boston furnished with any such evaluations or appraisals. The Credit Suisse First Boston opinion is necessarily based upon information made available to it as of the date of its opinion, and upon financial, economic, market and other conditions as they existed and could be evaluated on the date of the Credit Suisse First Boston opinion. Credit Suisse First Boston did not express any opinion as to what the value of Veeco common stock actually will be when issued to holders of FEI common stock pursuant to the merger or the prices at which shares of Veeco common stock will trade at any time. The Credit Suisse First Boston opinion does not address the relative merits of the merger as compared to other business strategies that might be available to FEI, nor does it address the underlying business decision of FEI to proceed with the merger. Credit Suisse First Boston was not requested to, and did not, solicit third party indications of interest in acquiring all or any part of FEI.

In preparing its opinion, Credit Suisse First Boston performed a variety of financial and comparative analyses. The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. Credit Suisse First Boston believes that its analyses must be considered as a whole and that selecting portions of its analyses and of the factors considered by it, without considering all analyses and factors, could create a misleading view of the processes underlying the Credit Suisse First Boston opinion. No company or transaction used in the analyses performed by Credit Suisse First Boston as a comparison is identical to FEI, Veeco or the contemplated merger. In addition, Credit Suisse First Boston may have given various analyses more or less weight than other analyses, and may have deemed various assumptions more or less probable than other assumptions, so that the range of valuation resulting from any particular analysis described below should not be taken to be Credit Suisse First Boston's view of the actual value of FEI or Veeco. The analyses performed by Credit Suisse First Boston are not necessarily indicative of actual values or actual future results, which may be significantly more or less favorable than suggested by such analyses. In addition, analyses relating to the value of businesses or assets do not purport to be appraisals or to necessarily reflect the

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prices at which businesses or assets may actually be sold. The analyses performed were prepared solely as part of Credit Suisse First Boston's analysis of the fairness, from a financial point of view, of the merger exchange ratio to holders of FEI common stock, other than PBE and its affiliates, and were provided to the FEI board of directors in connection with the delivery of the Credit Suisse First Boston opinion.

The following is a summary of material financial analyses performed by Credit Suisse First Boston in connection with the preparation of its opinion and reviewed with the FEI board of directors at a meeting of the FEI board of directors held on July 10, 2002. Certain of the following summaries of financial analyses that were performed by Credit Suisse First Boston include information presented in tabular format. In order to understand fully the material financial analyses that were performed by Credit Suisse First Boston, the tables should be read together with the text of each summary. The tables alone do not constitute a complete description of the material financial analyses.

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Transaction Multiples

Credit Suisse First Boston calculated several values implied by the merger exchange ratio (based on Veeco's closing share price on July 8, 2002), including the implied price per FEI share, the implied premium to FEI's closing share price on July 8, 2002, the implied pro forma fully-diluted ownership of FEI shareholders in Veeco (assuming the conversion of outstanding convertible debt of FEI and Veeco) and the implied FEI fully-diluted equity value and aggregate value of FEI. The following table summarizes the results of this analysis:

Implied Price Per FEI Share	Implied Premium to Market Price of FEI Shares on July 8, 2002	Implied Pro Forma Fully-Diluted FEI Ownership in Veeco	Implied FEI Fully-Diluted Equity Value	Implied FEI Fully-Diluted Aggregate Value
\$32.05	44.1%	59.3%	\$ 1,089.1 million	\$ 1,007.1 million

Credit Suisse First Boston also calculated the implied fully-diluted aggregate value of FEI and Veeco as a multiple of estimated revenues for calendar years 2002 and 2003 and the implied price per share as a multiple of estimated earnings per share for calendar years 2002 and 2003. These implied values were based on closing share prices for FEI and Veeco on July 8, 2002. These multiples were calculated using the average of publicly available forecasts prepared by securities research analysts. The following table summarizes the results of this analysis:

Implied Multiples	Multiples Implied by Market Price Per Share		Multiples Implied by Merger Exchange Ratio
	Veeco	FEI	FEI
Implied Fully-Diluted Aggregate Value/Calendar Year 2002 Estimated Revenue	2.0x	2.0x	3.0x
Implied Fully-Diluted Aggregate Value/Calendar Year 2003 Estimated Revenue	1.6x	1.6x	2.4x
Implied Price Per Share/Estimated Earnings Per Share For Calendar Year 2002	157.7x	28.1x	40.6x
Implied Price Per Share/Estimated Earnings Per Share For Calendar Year 2003	24.4x	15.2x	21.9x

Veeco Historical Stock Trading Performance

Credit Suisse First Boston analyzed the prices at which Veeco common stock traded from January 2, 2001 through July 8, 2002. Credit Suisse First Boston noted that the high closing price of Veeco common stock during this period was \$64.13 on January 18, 2001, and that the low closing price of Veeco common stock was \$21.10 on September 20, 2001. Credit Suisse First Boston also noted the average closing price of Veeco common stock over various periods prior to July 8, 2002 as summarized below:

Period Prior to July 8, 2002	Average Closing Price
July 8, 2002	\$ 23.65
Last 5 trading days	\$ 22.67
Last 10 trading days	\$ 22.60
Last 30 trading days	\$ 25.46

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Period Prior to July 8, 2002	Average Closing Price
Last 60 trading days	\$ 28.47
Last 90 trading days	\$ 29.43
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Credit Suisse First Boston also analyzed the prices at which Veeco common stock traded from January 2, 1997 through July 8, 2002. Credit Suisse First Boston noted that the high closing price of Veeco common stock during this period was \$115.50 on September 27, 2000, and that the low closing price of Veeco common stock was \$19.19 on December 15, 1997. Credit Suisse First Boston also noted the average closing price of Veeco common stock over various periods prior to July 8, 2002 as summarized below:

Period Prior to July 8, 2002	Average Closing Price
July 8, 2002	\$ 23.65
Last 180 trading days	\$ 30.53
Last Year	\$ 30.88
Last 2 Years	\$ 44.70

FEI Historical Stock Trading Performance

Credit Suisse First Boston analyzed the prices at which FEI common stock traded from January 2, 2001 through July 8, 2002. Credit Suisse First Boston noted that the high closing price of FEI common stock during this period was \$42.10 on June 7, 2001, and that the low closing price of FEI common stock was \$18.38 on March 19, 2001. Credit Suisse First Boston also noted the average closing price of FEI common stock over various periods prior to July 8, 2002, as summarized below:

Period Prior to July 8, 2002	Average Closing Price
July 8, 2002	\$ 22.23
Last 5 trading days	\$ 22.51
Last 10 trading days	\$ 22.71
Last 30 trading days	\$ 23.99
Last 60 trading days	\$ 26.16
Last 90 trading days	\$ 28.44

Historical Indexed Trading Performance

Credit Suisse First Boston compared the recent stock price performance of FEI with the recent stock price performance of Veeco, a composite index comprising 6 large-cap semiconductor equipment companies and a composite index comprising 4 optical/metrology companies over the period from January 2, 2001 through July 8, 2002. The following table sets forth the changes in such stock prices and indices over this period:

	Change from January 2, 2001
FEI	15.11%
Large-Cap Index	(8.3%)
Veeco	(35.2%)
Optical/Metrology Index	(63.1%)

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Comparable Company Trading Analysis

Credit Suisse First Boston compared certain financial information of FEI and Veeco with that of other companies in the optical capital equipment/metrology and semiconductor equipment industries including:

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Optical Capital Equipment/Metrology Companies

Newport Corp.
Rudolph Technologies Inc.
Therma Wave Inc.
Nanometrics Inc.

Large Cap Semiconductor Equipment Companies

Applied Materials Inc.
KLA-Tencor Corp.
ASML Holding NV
Novellus Systems Inc.
Teradyne Inc.
LAM Research Corp.

Mid-Cap Semiconductor Equipment Companies

Varian Semiconductor Equipment
Axcelis Technologies Inc.
ASM International N V
Brooks-PRI Automation Inc.
SEZ Holding AG

Such information included, among other things, the mean and median of several financial metrics for the companies in each industry sector, including prices per share as a multiple of estimated earnings per share for calendar years 2002 and 2003 and fully-diluted aggregate values as a multiple of estimated revenues for calendar years 2002 and 2003. The multiples were calculated using publicly available information and the average of publicly available forecasts prepared by securities research analysts. The following table summarizes the results of this analysis:

	Price Per Share/ Estimated Earnings Per Share		Fully-Diluted Aggregate Value/Estimated Revenue	
	Calendar Year 2002	Calendar Year 2003	Calendar Year 2002	Calendar Year 2003
FEI	28.1x	15.2x	2.0x	1.6x
Veeco	157.7x	24.4x	2.0x	1.6x
Optical Capital Equipment/Metrology Companies				
Median	49.0x	31.8x	2.9x	1.7x
Mean	49.0x	47.3x	2.8x	1.8x
Large Cap Semiconductor Equipment Companies				
Median	65.9x	23.4x	3.9x	2.4x
Mean	59.0x	25.8x	3.8x	2.6x
Mid-Cap Semiconductor Equipment Companies				
Median	183.6x	26.5x	2.6x	1.8x
Mean	183.6x	26.0x	2.4x	1.6x

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No company utilized as a comparison in the Comparable Company Trading Analysis is identical to FEI or Veeco. Mathematical analysis, such as determining the mean or the median, is not in itself a meaningful method of using comparable market trading data.

Exchange Ratio Analysis

Credit Suisse First Boston calculated the ratio of FEI's closing share price to Veeco's closing share price for each trading day over various periods ended July 8, 2002, and derived from such values the average of such ratios for each such period (the average market exchange ratio). Credit Suisse First Boston then compared the average market exchange ratio over such periods with the market exchange ratio on July 8, 2002 and the merger exchange ratio to determine the premium/(discount) of the market exchange ratio on July 8, 2002 and the merger exchange ratio to the average market exchange ratio for each period. The following table summarizes the results of this analysis:

**Premium/(Discount) to Average
Market Exchange Ratio Over Period**

Observation Period	Average Market Exchange Ratio Over Period	Market Exchange Ratio on July 8, 2002	Merger Exchange Ratio
Since June 1, 1995, (Date of FEI initial public offering)	0.527x	78.5%	157.3%
Last 180 trading days	0.975x	(3.6%)	39.0%
Last 90 trading days	0.968x	(2.9%)	40.0%
Last 60 trading days	0.923x	1.9%	46.8%
Last 30 trading days	0.947x	(0.7%)	43.2%
Last 10 trading days	1.006x	(6.5%)	34.7%
July 8, 2002	0.940x	0.0%	44.1%

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Contribution Analysis

Credit Suisse First Boston analyzed the relative contributions of FEI and Veeco to the pro forma revenue, operating income, net income and earnings per share of the combined company for calendar years 2000 through 2003. Estimates for calendar years 2002 and 2003 were based on the average of publicly available forecasts prepared by securities research analysts. Credit Suisse First Boston calculated certain values implied by such relative contributions, including the implied exchange ratio and the premium/(discount) to FEI's closing share price on July 8, 2002 implied by such implied exchange ratios. The following table summarizes the results of this analysis:

	Implied Exchange Ratio	Implied Premium/(Discount) to Market Price Per Share
Revenue		
Calendar Year 2000A	0.827x	(12.0%)
Calendar Year 2001A	0.814x	(13.4%)
Calendar Year 2002E	0.978x	4.0%
Calendar Year 2003E	0.953x	1.4%
Gross Profit		
Calendar Year 2000A	0.780x	(17.1%)
Calendar Year 2001A	0.870x	(7.5%)
Calendar Year 2002E	1.058x	12.6%
Calendar Year 2003E	1.025x	9.0%
Operating Income		
Calendar Year 2000A	0.912x	(3.0%)
Calendar Year 2001A	1.085x	15.4%
Calendar Year 2002E	3.032x	222.6%
Calendar Year 2003E	1.559x	65.8%
Net Income		
Calendar Year 2000A	0.747x	(20.6%)
Calendar Year 2001A	0.975x	3.7%
Calendar Year 2002E	4.445x	372.8%
Calendar Year 2003E	1.485x	58.0%
Earnings Per Share		
Calendar Year 2000A	0.733x	(22.1%)
Calendar Year 2001A	0.925x	(1.6%)
Calendar Year 2002E	5.267x	460.3%
Calendar Year 2003E	1.505x	60.1%

Precedent Exchange Ratio Premiums Analysis

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Credit Suisse First Boston reviewed the exchange ratio premiums paid in the following 25 merger-of-equals transactions in the technology industry since 1994:

SmartForce/SkillSoft	USWeb/Whittman-Hart
Oplink/Avanex	Interactive Pictures/Bamboo.com
Proxim/Western Multiplex	Earthlink/Mindspring
PRI Automation/Brooks Automation	JDS Fitel/Uniphase
Virata/GlobeSpan	Integrated Process Equipment/SpeedFam
KANA/Broadbase	N2K/CDNow
Floware/BreezeCOM	Pure Atria/Rational Software
Software.com/Phone.com	U.S. Robotics/3Com

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Jupiter/Media Matrix	Tencor Instruments/KLA Instruments
HMT Technology/Komag	Atria Software/Pure Software
Apex/Cybex Computer Products	Integrated Silicon Systems/ArcSys
Mission Critical Software/NetIQ	SynOptics/Wellfleet
Borland/Corel	

For each transaction, Credit Suisse First Boston calculated the premium/(discount) implied by the exchange ratio in the transaction relative to the average of the daily ratio of the closing stock price for the target company and the acquiror company in the transaction over various periods prior to public announcement of the transaction. Credit Suisse First Boston applied the average of such premiums/(discounts) to the average of the daily ratio of the closing price of FEI common stock and Veeco common stock over the same periods to calculate the implied exchange ratios for such periods. The following table summarizes the results of this analysis:

Exchange Ratio Premiums Paid in 25 Precedent Technology Merger-of-Equals Transactions Since 1994

	Trailing 90 Days	Trailing 60 Days	Trailing 30 Days	Trailing 10 Days	Market	Average
Average Premium/(Discount) in Precedent Transactions	11.7%	12.2%	13.8%	17.4%	16.6%	14.3%
Implied Merger Exchange Ratio Based on Precedent Average Premium/(Discount)	1.082x	1.035x	1.077x	1.181x	1.096x	1.094x

Credit Suisse First Boston also reviewed the exchange ratio premiums/(discounts) paid in 299 precedent stock-for-stock transactions in the technology industry since January 1, 1990 and 99 precedent stock-for-stock transactions in the technology industry above \$1 billion since January 1, 1990. For each group of transactions, Credit Suisse First Boston calculated the premium/(discounts) implied by the exchange ratio in each transaction relative to the average of the daily ratio of the closing stock price for the target company and the acquiror company in the transaction over various periods prior to public announcement of the transaction. Credit Suisse First Boston then applied the average of such premiums for each group to the average of the daily ratio of the closing price of FEI common stock and Veeco common stock over the same periods to calculate the implied exchange ratios. The following tables summarize the results of this analysis:

Exchange Ratio Premiums Paid in 299 Precedent Stock-for-Stock Technology Transactions Since January 1, 1990

	Last Twelve Months Average	Trailing 90 Days	Trailing 60 Days	Trailing 30 Days	Trailing 10 Days	Market	Average
Average Premium/(Discount) in Precedent Transactions	21.5%	36.5%	40.8%	42.1%	39.4%	34.4%	35.8%
Implied Merger Exchange Ratio Based on Precedent Average Premium/(Discount)	1.200x	1.322x	1.299x	1.345x	1.401x	1.263x	1.306x

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Exchange Ratio Premiums Paid in 99 Precedent Stock-for-Stock Technology Transactions Above \$1 Billion Since January 1, 1990

	Last Twelve Months Average		Trailing 90 Days	Trailing 60 Days	Trailing 30 Days	Trailing 10 Days	Market	Average
Average Premium/(Discount) in Precedent Transactions	39.0	%	42.3%	44.3%	44.7%	41.6%	36.4%	41.4%
Implied Merger Exchange Ratio Based on Precedent Average Premium/(Discount)	1.373x		1.378x	1.332x	1.370x	1.424x	1.283x	1.360x

No transaction utilized as a comparison in the precedent exchange ratio premiums analysis is identical to the merger. Mathematical analysis, such as determining the average or the median, is not in itself a meaningful method of using comparable transaction data.

Discounted Cash Flow Analysis

Using a discounted cash flow analysis, Credit Suisse First Boston calculated various implied exchange ratios based on financial forecasts for calendar years 2002 through 2008 for FEI and Veeco. The forecasts for calendar years 2002 and 2003 were based on the average of publicly available forecasts prepared by securities research analysts. The forecasts for calendar years 2004 through 2008 were based on forecasts approved by the managements of FEI and Veeco, respectively. Such forecasts included various operating assumptions, such as assumptions relating to revenue growth rates, operating income margins, working capital, capital expenditures and depreciation. Credit Suisse First Boston's analysis used discount rates ranging from 15% to 17% and terminal multiples of unlevered net income of 20.0x to 30.0x. The following tables summarize the results of this analysis:

Implied Exchange Ratio Based on an Unlevered Forward Net Income Multiple of 25.0x

Veeco Discount Rate	FEI Discount Rate		
	15.0%	16.0%	17.0%
15.0%	1.253x	1.203x	1.154x
16.0%	1.308x	1.256x	1.205x
17.0%	1.366x	1.310x	1.258x

Implied Exchange Ratio Based on a Discount Rate of 16.0%

Veeco Unlevered Forward Net Income Multiple	FEI Unlevered Forward Net Income Multiple		
	20.0x	25.0x	30.0x
20.0x	1.263x	1.511x	1.756x
25.0x	1.050x	1.256x	1.459x
30.0x	0.898x	1.074x	1.249x

Pro Forma Earnings Per Share Impact Analysis

Credit Suisse First Boston analyzed certain pro forma effects expected to result from the merger, including, among other things, the expected effect of the merger on the estimated earnings per share for FEI and Veeco for calendar year 2003. The following table sets forth estimated accretion/(dilution)

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to FEI's and Veeco's earnings per share for such periods based on the average of publicly available forecasts prepared by securities research analysts, and assuming no synergies arising from the merger:

Pro Forma Earnings Per Share Impact Excluding Synergies

Accretion/(Dilution) to Veeco			Accretion/(Dilution) to FEI		
March 31, 2003	June 30, 2003	Calendar Year 2003	March 31, 2003	June 30, 2003	Calendar Year 2003
20.9	%	10.2%	9.6%	(10.3%)	(5.8%)
		9.6%		(5.5%)	

Credit Suisse First Boston also analyzed the expected effect of the merger on the estimated earnings per share for FEI and Veeco for calendar year 2003 based on synergies anticipated by the managements of FEI and Veeco to result from the merger. The following table sets forth estimated accretion/(dilution) to FEI's and Veeco's earnings per share for such periods based on the average of publicly available forecasts prepared by securities research analysts:

Pro Forma Earnings Per Share Impact Including Synergies

Accretion/(Dilution) to Veeco	Accretion/(Dilution) to FEI
Calendar Year 2003	Calendar Year 2003
20.8%	4.2%

The actual results achieved by the combined company after the merger may vary from such estimated results and the variations may be material.

Credit Suisse First Boston's opinion and presentation to the FEI board of directors was one of many factors taken into consideration by the FEI board of directors in making its determination to engage in the merger. Consequently, the analyses described above should not be viewed as determinative of the opinion of the FEI board of directors or the management of FEI with respect to the value of FEI or whether the FEI board of directors would have been willing to agree to a different exchange ratio.

The FEI board of directors retained Credit Suisse First Boston to act as its financial advisor in connection with the merger. Credit Suisse First Boston was selected by the FEI board of directors based on Credit Suisse First Boston's qualifications, expertise and reputation. Credit Suisse First Boston is an internationally recognized investment banking and advisory firm. Credit Suisse First Boston, as part of its investment banking business, is continuously engaged in the valuation of businesses and securities in connection with mergers and acquisitions, leveraged buyouts, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. In the past, Credit Suisse First Boston and its affiliates have provided investment banking and financial services to FEI unrelated to the merger for which it received compensation, and Credit Suisse First Boston may, in the future, provide investment banking and financial services to Veeco for which it would expect to receive compensation. In the ordinary course of its business, Credit Suisse First Boston and its affiliates may actively trade the debt and equity securities of FEI and Veeco for their own accounts and for the accounts of customers and, accordingly, may at any time hold a long or short position in such securities.

Pursuant to an engagement letter dated as of January 25, 2002, as amended, FEI engaged Credit Suisse First Boston to provide financial advisory services to the FEI board of directors in connection with the merger, including, among other things, rendering its opinion. Pursuant to the terms of the engagement letter, FEI has agreed to pay Credit Suisse First Boston a customary fee in connection therewith, a significant portion of which is contingent upon the consummation of the merger. Credit

Suisse First Boston will also receive a fee for rendering its opinion. In addition, FEI has agreed to reimburse Credit Suisse First Boston for its out-of-pocket expenses, including attorney's fees, incurred in connection with its engagement and to indemnify Credit Suisse First Boston and certain related persons against certain liabilities and expenses arising out of or in conjunction with its rendering of services under its engagement, including liabilities arising under the federal securities laws.

Structure of the Merger

Venice Acquisition Corp., a newly formed and wholly-owned subsidiary of Veeco, will be merged with and into FEI. As a result of the merger, the separate corporate existence of Venice Acquisition Corp., will cease and FEI will survive the merger as a wholly-owned subsidiary of Veeco. References to "Veeco FEI" in this joint proxy statement/prospectus are references to Veeco as it will be renamed following the merger.

Board of Directors and Management of Veeco FEI After the Merger

Board of Directors of Veeco FEI. The Veeco board of directors currently consists of nine members. Upon completion of the merger, Veeco FEI will increase the size of its board of directors to thirteen directors, seven of whom will be nominated by Veeco from the current members of the Veeco board of directors (including Edward H. Braun), five of whom will be nominated by FEI from the current members of the FEI board of directors (including Vahé A. Sarkissian) and one of whom will be nominated by PBE, FEI's largest shareholder, in accordance with the terms of an investor agreement among Veeco, FEI and PBE. Other than Edward H. Braun, the current Chairman, CEO and President of Veeco, and Vahé A. Sarkissian, the current Chairman, CEO and President of FEI, none of the other directors will be employees of Veeco FEI.

Veeco's bylaws provide for a staggered board of directors, composed of three separate classes, Class I, Class II and Class III. Veeco, FEI and PBE have agreed that two Veeco nominees and two FEI nominees will serve as Class III directors for terms expiring at Veeco FEI's 2003 annual meeting of stockholders, two Veeco nominees and two FEI nominees will serve as Class I directors for terms expiring at Veeco FEI's 2004 annual meeting of stockholders and three Veeco nominees, one FEI nominee and one PBE nominee will serve as Class II directors for terms expiring at Veeco FEI's 2005 annual meeting of stockholders. Under the Veeco FEI bylaws, directors may be removed only for cause and only by a vote of the stockholders.

PBE's right to appoint a director to the Veeco FEI board of directors will end upon the earlier to occur of:

Veeco FEI's 2005 annual meeting of stockholders; or

The date when Philips ceases to own at least 7.5% of Veeco FEI's outstanding common stock.

The affirmative vote of a majority of the members of the board of directors of Veeco FEI will be required to change the size of the Veeco FEI board of directors.

The individuals nominated by Veeco, FEI and PBE to be directors of Veeco FEI upon completion of the merger and their ages as of June 30, 2002 are:

Name*	Age	Designee of:	Class	For a Term Expiring at the Annual Meeting Stockholders in:
Edward H. Braun	62	Veeco	II	2005
TBD		Veeco	II	2005
TBD		Veeco	II	2005
TBD		Veeco	I	2004
TBD		Veeco	I	2004
TBD		Veeco	III	2003
TBD		Veeco	III	2003
Vahé A. Sarkissian	59	FEI	II	2005
TBD		FEI	I	2004
TBD		FEI	I	2004
TBD		FEI	III	2003
TBD		FEI	III	2003
TBD		PBE	II	2005

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*

The other individuals who will serve on the Veeco FEI board of directors have not been determined as of the date of this joint proxy statement/prospectus.

For information concerning the directors nominated by Veeco, see Veeco's proxy statement used in connection with its 2002 annual meeting of stockholders, the relevant portions of which are incorporated by reference into Veeco's annual report on Form 10-K for the fiscal year ended December 31, 2001. For information concerning the directors nominated by FEI [and PBE], see FEI's proxy statement used in connection with its 2002 annual meeting of shareholders, the relevant portions of which are incorporated by reference into FEI's annual report on Form 10-K for the fiscal year ended December 31, 2001.

Committees of the Veeco FEI Board of Directors. Upon completion of the merger, the board of directors of Veeco FEI will have three committees: (1) a nominating committee, (2) an audit committee and (3) a compensation committee. Each committee will be comprised of three members who will be elected by a majority of the Veeco FEI board of directors.

The affirmative vote of a majority of the members of the board of directors of Veeco FEI will be required to modify the powers and authority of any committee of the Veeco FEI board of directors. In addition, the Veeco FEI board of directors may remove a director from a committee, change the size of any committee, terminate any committee or change the chair of a committee only with the affirmative vote of a majority of the members of the Veeco FEI board of directors.

Compensation of Directors. In accordance with existing practice of Veeco, it is expected that directors of Veeco FEI who are also full-time employees of Veeco FEI will receive no additional compensation for their services as directors. Each non-employee director will be entitled to receive a fee of \$2,000 for each board meeting held in person, \$1,000 for each board meeting held by conference call and \$1,000 for each committee meeting. Pursuant to Veeco FEI's 2000 Stock Option Plan, each non-employee director who meets the eligibility criteria for such plan will receive an annual grant of options to purchase 7,000 shares of Veeco FEI common stock with an exercise price equal to the fair market value of a share of Veeco FEI common stock on the date of grant.

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Executive Officers of Veeco FEI. The principal executive officers of Veeco FEI upon completion of the merger, and their ages as of June 30, 2002, will be as follows:

Name	Age	Title
Edward H. Braun	62	President and Chief Executive Officer
Vahé A. Sarkissian	59	Chairman and Chief Strategy Officer
John F. Rein, Jr.	55	Executive Vice President, Chief Financial Officer, Treasurer and Secretary

Veeco FEI expects to designate additional executive officers prior to completion of the merger the identities of which have not been determined as of the date of this joint proxy statement/prospectus.

Edward H. Braun, the current Chairman, President and Chief Executive Officer of Veeco will remain the President and Chief Executive Officer of Veeco FEI. Vahé A. Sarkissian, the current Chairman, President and Chief Executive Officer of FEI will become the Chairman and Chief Strategy Officer of Veeco FEI. John F. Rein, Jr., the current Chief Financial Officer of Veeco will remain the Chief Financial Officer of Veeco FEI.

A summary of the responsibilities of the President and Chief Executive Officer and Chairman is as follows:

President and Chief Executive Officer The President and Chief Executive Officer will be the chief executive officer of Veeco FEI and will be responsible for the general and active management of the business of Veeco FEI and for seeing that all orders and resolutions of the Veeco FEI board of directors are carried into effect. The President and Chief Executive Officer's role will be to run Veeco FEI and he will be responsible for its operating results. He will also be the chief external representative of Veeco FEI. The President and Chief Executive Officer will have general powers of supervision over the business of Veeco FEI. The officers of Veeco FEI will report to the President and Chief Executive Officer and the President and Chief Executive Officer will report to the Veeco FEI board of directors. The President and Chief Executive Officer will work with the Chairman to plan and develop the strategy for Veeco FEI and the setting of goals and financial performance measures. The President and Chief Executive Officer will co-chair Veeco FEI's Integration Steering Committee and Veeco FEI's Strategic Review Board and will also perform such other duties and may exercise such other powers as may from time to time be assigned to him by the Veeco FEI board of directors. The President and Chief Executive Officer may be removed only by a two-thirds vote of the Veeco FEI

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board of directors other than the officer proposed to be removed (if such officer is a member of the Veeco FEI board of directors).

Chairman The Chairman will preside at all meetings of the Veeco FEI board of directors and of the stockholders and will have the powers and duties commensurate with chairmen of publicly-traded entities. The Chairman will manage the board-level governance of Veeco FEI. The Chairman will work with the Chief Executive Officer of Veeco FEI to plan and develop the strategy for Veeco FEI and to set goals and financial performance measures of Veeco FEI. The Chairman will co-chair Veeco FEI's Integration Steering Committee and Veeco FEI's Strategic Review Board and will also perform such other duties and may exercise such other powers as may from time to time be assigned to him by the Veeco FEI board of directors. The Chairman may be removed only by a two-thirds vote of the Veeco FEI board of directors other than the officer proposed to be removed (if such officer is a member of the Veeco FEI board of directors).

The current heads of the respective divisions/segments of Veeco and FEI will continue in those roles and report directly to the Chief Executive Officer of Veeco FEI.

For a more detailed description of the agreements between Veeco and each of Edward H. Braun and Vahé A. Sarkissian, respectively, see the section titled "The Merger Interests of Executive Officers and Directors in the Merger" beginning on page 69.

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Compensation of Executive Officers. Other than the employment agreements between Veeco and each of Edward H. Braun and Vahé A. Sarkissian, which were executed on July 11, 2002 and have been approved by the Veeco board of directors, the form and amount of the compensation to be paid to each of Veeco FEI's executive officers in any future period will be determined by the compensation committee of the Veeco FEI board of directors.

For information concerning the compensation paid to, and the employment agreements with, the chief executive officer and the other four most highly compensated executive officers of Veeco for the 2001 fiscal year, see Veeco's proxy statement used in connection with its 2002 annual meeting of stockholders, the relevant portions of which are incorporated by reference into Veeco's annual report on Form 10-K for the fiscal year ended December 31, 2001. For information concerning the compensation paid to, and the employment agreements with, the chief executive officer and the other four most highly compensated executive officers of FEI for the 2001 fiscal year, see FEI's proxy statement used in connection with its 2002 annual meeting of shareholders, the relevant portions of which are incorporated by reference into FEI's annual report on Form 10-K for the fiscal year ended December 31, 2001.

Interests of Executive Officers and Directors in the Merger

General. Certain directors and officers of FEI and Veeco may have interests in the merger that are different from, or in addition to, the interests of FEI shareholders and Veeco stockholders. Such additional interests are described below to the extent material.

Veeco FEI Board of Directors. In accordance with the terms of the merger agreement, the Veeco FEI board of directors will be comprised of thirteen members, seven of whom will be nominated by Veeco from Veeco's current board of directors, five of whom will be nominated by FEI from FEI's current board of directors and one of whom will be nominated by PBE.

Vahé A. Sarkissian, _____, _____, and _____ from FEI's board of directors have been nominated by FEI and _____ has been nominated by PBE to join the Veeco FEI board of directors. Edward H. Braun, _____, _____, _____, and _____ from Veeco's board of directors will continue as directors of Veeco FEI.

FEI Severance Agreements; Severance Payments. Several FEI officers, including Vahé A. Sarkissian, who is also a director, have severance agreements with FEI. These officers are, or may become, entitled to specific benefits under these agreements as a result of the merger. FEI has entered into severance agreements with each of the following FEI officers:

Officers	Position
Vahé A. Sarkissian	Chairman, President and Chief Executive Officer
John A. Doherty	Senior Vice President, Worldwide Sales
Jim D. Higgs	Senior Vice President, Human Resources
Bradley J. Thies	Vice President, General Counsel and Secretary
John M. Lindquist	Senior Vice President of Corporate Marketing
Stephen F. Loughlin	Vice President of Corporate Finance, acting Chief Financial Officer and Controller
Steven Berger	Senior Vice President and Chief Technical Officer
Michel Epsztein	

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Officers

Position

Senior Vice President and General Manager,
Microelectronics Product Group

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Under his current severance agreement with FEI, Mr. Sarkissian would have been entitled to significant severance payments and other benefits upon the closing of the merger. Mr. Sarkissian has entered into an employment agreement with Veeco that will supersede his current severance agreement and he will not, therefore be entitled to or receive any severance payments or other benefits under his current severance agreement. Mr. Sarkissian's new employment agreement is described below in the section titled "Employment Agreements."

FEI has also entered into severance agreements with the seven other FEI officers listed above. Under the terms of these agreements, each officer is entitled to severance pay in the event his employment is terminated within 18 months following a "change in control" of FEI other than a termination by FEI for cause, death or disability or by the officer without "good reason." Upon such a termination, the executive officer is entitled to a severance payment equal to two times his annual salary plus an amount equal to his target annual bonus for the year in which he is terminated, certain insurance benefits and accelerated vesting of his stock options. The merger of Veeco and FEI is expected to constitute a change of control under these agreements.

If the employment of any of FEI's officers is terminated following the merger under circumstances entitling them to benefits under their FEI severance agreements, he will be entitled to significant lump-sum severance payments.

Employment Agreements. Pursuant to the terms of the merger agreement, Veeco has entered into employment agreements, to be effective upon the closing of the merger, with Vahé A. Sarkissian, FEI's current Chairman, Chief Executive Officer and President, and Edward H. Braun, Veeco's current Chairman, Chief Executive Officer and President. Mr. Sarkissian's employment agreement provides that he will be the Chairman and Chief Strategy Officer of Veeco FEI. Mr. Sarkissian's employment agreement will, when it becomes effective, supersede his severance agreement with FEI, and he will not be entitled to any severance payments or other benefits under his current severance agreement with FEI. Mr. Braun's employment agreement provides that he will be the President and Chief Executive Officer of Veeco FEI. Mr. Braun's employment agreement will supersede his current employment agreement with Veeco. The material terms of Messrs. Sarkissian's and Braun's employment agreements are substantially the same. The table below provides a summary of these employment agreements.

Annual Base Salary	\$600,000
Bonus	Up to 100% of annual base salary if performance standards set by board of directors are met
Benefits and Perquisites	Car allowance, benefits and perquisites available to Veeco FEI executives generally and stock options under Veeco FEI stock option plans
Severance	<p>If terminated by Veeco FEI for any reason other than for cause, or if resigns for good reason: Severance payment equal to three times annual base salary; 100% of target bonus for year in which termination or resignation occurs; and Accelerated vesting of options, and three years to exercise options.</p> <p>If terminated by Veeco FEI for cause or resigns without good reason: Vesting of options terminates immediately; All compensation payments terminate immediately; and Severance benefits in accordance with Veeco FEI's established policies as then in effect, if any.</p>

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If terminated for any reason, or resigns for any reason for five years:

Participation in all group health and insurance programs, and all other benefits, fringe benefits and perquisites available generally to senior executives of Veeco FEI.

Under these agreements, termination for cause means:

Willful and continued failure by the executive to substantially perform reasonably assigned duties, other than a failure resulting from the executive's incapacity due to physical or mental illness, after the Veeco FEI board of directors delivers a demand for substantial performance which specifically identifies the manner in which the board believes that the executive has not substantially performed the executive's duties; or

Willful engagement by the executive in illegal conduct which is materially and demonstrably injurious to Veeco FEI. No act, or failure to act, on the executive's part will be considered "willful" unless done, or omitted to be done, without reasonable belief that the action or omission was in, or not opposed to, the best interests of Veeco FEI.

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Under these agreements, resignation for good reason means:

The assignment of a different title, job or responsibilities that results in a substantial decrease in the level of the executive's responsibility with respect to Veeco FEI's business;

A reduction in the executive's base salary, other than a salary reduction that is part of a salary reduction affecting Veeco FEI employees generally;

A significant reduction by Veeco FEI in total benefits available to the executive under cash incentive, stock incentive and other employee benefit plans;

A material breach by Veeco FEI of its obligations under the employment agreement;

The requirement that the executive travel on Veeco FEI business to an extent substantially inconsistent with his duties as Chairman and Chief Strategy Officer (in the case of Mr. Sarkissian) or President and Chief Executive Officer (in the case of Mr. Braun); or

The movement of Veeco FEI's headquarters outside the continental United States.

If the severance and other benefits provided for by the employment agreements or otherwise payable to an executive constitute "parachute payments" within the meaning of Section 280G of the Internal Revenue Code and will be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code, then the executive will receive:

A payment sufficient to pay such excise tax; and

An additional payment sufficient to pay the excise tax and federal and state income taxes arising from the payments made by Veeco FEI to the executive pursuant to the paragraph below.

If the excise tax incurred by the executive is determined by the IRS to be greater or less than the amount determined by the accounting firm the parties employed, then Veeco FEI and the executive agree to make such additional payment, including interest and any tax penalties, to the other party as the accountants reasonably determine is appropriate to ensure that the net economic effect to the executive, on an after-tax basis, is as if the Internal Revenue Code Section 4999 excise tax did not apply to him.

Each executive has agreed that, during the employment term and for two years after termination of his employment with Veeco FEI, he will not, in the United States or anywhere else in the world where Veeco FEI conducts business:

Engage in any business that has a competing business purpose;

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Have any ownership interest in a company that engages in a competing business purpose (except for passive ownership of no more than 1% of a publicly traded company); or

Participate in the financing, operation, management or control of any company that engages in a competing business purpose.

For purposes of these non-compete provisions, the phrase, "competing business purpose" means the designing, manufacturing, marketing and servicing of products that deposit or etch materials on a substrate or that provide critical measurements of certain features utilized in data storage

and semiconductor devices.

In addition, each executive has agreed that he will not, directly or indirectly, solicit, encourage or take any other action that is intended to induce or encourage, or has the effect of inducing or encouraging:

Any employee of Veeco FEI to terminate his or her employment with Veeco FEI (during the executive's employment term and for three years after termination of the executive's employment with Veeco FEI); or

Any customer, supplier or other business contact of Veeco FEI to terminate his, her or its relationship with Veeco FEI (during the executive's employment term and for two years after termination of the executive's employment with Veeco FEI).

Under Mr. Sarkissian's employment agreement, Veeco acknowledged that FEI and Mr. Sarkissian had amended Mr. Sarkissian's Non-Negotiable Promissory Note dated June 25, 1998 (in the principal amount of \$1,115,530) to provide for (1) an extension of the due date of all amounts owed pursuant to such note from June 24, 2002 to June 24, 2005 and (2) an increase in the interest rate payable under such note from 5.58% per annum to 5.75% per annum. This amendment was made as of June 23, 2002.

FEI Option Plans. Under the merger agreement, all stock options to purchase shares of FEI common stock held by FEI officers and directors on the date of the merger will be converted into similar options to purchase Veeco FEI common stock.

Indemnification; Directors and Officers Insurance. From and after the closing of the merger, Veeco will, and will cause FEI, as a wholly-owned subsidiary of Veeco, to, fulfill and honor in all respects the obligations of FEI pursuant to any indemnification agreements between FEI and its directors and officers in effect immediately prior to the closing of the merger, subject to applicable law. The articles of incorporation and bylaws of FEI following the closing of the merger will contain provisions with respect to exculpation and indemnification that are at least as favorable to these indemnified persons as those provisions contained in the articles of incorporation and bylaws of FEI as in effect on the date of the merger agreement, which provisions will not be amended, repealed or otherwise modified for a period of six years from the closing of the merger in any manner that would adversely affect the rights of the indemnified persons thereunder, unless such modification is required by law. Also, for six years after the closing of the merger, FEI will, and Veeco will cause FEI to, maintain FEI's directors' and officers' liability insurance policy in respect of acts or omissions occurring prior to the completion of the merger, covering each person covered by FEI's officers' and directors' liability insurance policy in effect on July 11, 2002. FEI may substitute its own directors' and officers' policy of comparable coverage, but will not be obligated to pay annual premiums in excess of 200% of the premium payable by FEI therefor as of July 11, 2002. If FEI cannot obtain such comparable coverage for such 200% amount, FEI shall be entitled to reduce the amount of coverage to an amount that can be obtained for a premium equal to such 200% amount.

PBE. William E. Curran and Jan C. Lobbezoo, representatives of PBE, currently serve on the FEI board of directors.

has been nominated by PBE to serve on the Veeco FEI board

of directors in accordance with the terms of an investor agreement among Veeco, FEI and PBE. PBE also has entered into certain agreements with FEI and Veeco that will remain in effect after the merger, and PBE and Philips may enter into additional agreements with Veeco FEI after the merger. For additional information regarding certain of these agreements and other arrangements among FEI and Philips and PBE, see the section titled "Other Agreements" beginning on page 96 and the other public filings of FEI incorporated by reference herein. Also, see the section titled "Where You Can Find More Information" beginning on page 126.

Issuance of Shares in Connection with the Merger

The rules of The Nasdaq National Market, on which Veeco's common stock is listed, require stockholder approval for the issuance of shares of common stock in any transaction where the number of shares to be issued will be equal to 20% or more of the number of shares of common stock outstanding before the issuance. Veeco expects to issue approximately 44,000,000 shares of its common stock in the merger to FEI shareholders (and up to approximately 10,000,000 shares which may be issued in respect of FEI's options and other rights and convertible notes), representing approximately 185% of its shares of common stock outstanding before the issuance of its shares in the merger. Thus, Veeco is seeking stockholder approval of the issuance of the Veeco common stock in the merger.

Resale of Veeco Common Stock Issued in the Merger

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The shares of Veeco FEI common stock to be issued in connection with the merger will be registered under the Securities Act, and will be freely transferable, except for shares of Veeco FEI common stock issued to any person deemed to be an "affiliate" of Veeco FEI for purposes of Rule 144 under the Securities Act, and to any person deemed to be an affiliate of FEI for purposes of Rule 145 under the Securities Act at the time the merger is submitted to a vote of the Veeco stockholders or the FEI shareholders, as applicable. Persons who may be deemed to be affiliates include individuals or entities that control, are controlled by, or are under common control with either Veeco or FEI, and may include some officers, directors and principal stockholders of Veeco and FEI. Affiliates of FEI prior to the merger may not sell shares of Veeco FEI common stock acquired in connection with the merger except pursuant to an effective registration statement under the Securities Act covering such shares, or in compliance with Rule 145 under the Securities Act or another applicable exemption from the registration requirements of the Securities Act. Affiliates of Veeco FEI after the merger may not sell shares of Veeco FEI common stock acquired in connection with the merger except pursuant to an effective registration statement under the Securities Act covering such shares, or in compliance with Rule 144 under the Securities Act or another applicable exemption from the registration requirements of the Securities Act.

Veeco's registration statement of which this joint proxy statement/prospectus forms a part does not cover the resale of Veeco FEI common stock to be received by FEI affiliates in the merger.

Listing of Veeco Common Stock Issued in the Merger

It is a condition to the closing of the merger that the shares of Veeco common stock to be issued in the merger be approved for listing on The Nasdaq National Market, subject to notice of issuance.

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Delisting and Deregistration of FEI Common Stock; Cessation of Periodic Reporting

If the merger is consummated, the FEI common stock will cease to be listed on The Nasdaq National Market. In such event, FEI intends to apply to the SEC for the deregistration of such securities. Upon such deregistration, FEI will no longer be required to make separate periodic filings with the SEC under the Exchange Act.

Material U.S. Federal Income Tax Consequences of the Merger

Wilson Sonsini Goodrich & Rosati, Professional Corporation, and Kaye Scholer LLP, have provided opinions to FEI and Veeco, respectively, dated as of the effective date of the registration statement of which this joint proxy statement/prospectus forms a part, to the effect that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code. These tax opinions have been filed with the SEC as exhibits 8.1 and 8.2 to the registration statement on Form S-4 of which this joint proxy statement/prospectus forms a part. The tax opinions rely on certain customary assumptions, including assumptions regarding the absence of changes in existing facts and the completion of the merger in accordance with this joint proxy statement/prospectus and the merger agreement. The tax opinions also rely on certain factual representations contained in officer's certificates of Veeco and FEI. These assumptions and representations must be true and accurate as of the effective date of the registration statement, and must continue to be true and accurate as of the closing of the merger, or the conclusions contained in the tax opinions and this tax discussion could be affected.

The tax opinions and this tax discussion assume that FEI shareholders hold their shares of FEI common stock as capital assets. Further, the tax opinions and this tax discussion do not address all of the U.S. federal income tax consequences that may be relevant to FEI shareholders in light of their particular circumstances; nor do the tax opinions or this tax discussion address the federal income tax consequences that may be applicable to taxpayers subject to special treatment under the Internal Revenue Code, such as:

Insurance companies;

Financial institutions;

Dealers in securities;

Traders that mark to market;

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Tax-exempt organizations;

Shareholders who hold their shares as part of a hedge, appreciated financial position, straddle or conversion transaction;

Shareholders who acquired their FEI common stock through the exercise of options or otherwise as compensation or through a tax-qualified retirement plan;

Shareholders who are subject to the alternative minimum tax provisions of the Internal Revenue Code;

Shareholders whose functional currency is not the U.S. dollar; and

Foreign individuals (i.e., individuals who are not citizens or residents of the United States), foreign corporations, foreign partnerships or other foreign entities.

No information is provided in this document with respect to the tax consequences, if any, of the merger under applicable foreign, state, local and other tax laws. The tax opinions and this tax discussion are based upon the provisions of the Internal Revenue Code, applicable Treasury regulations, Internal Revenue Service rulings and judicial decisions, as in effect as of the date of this document.

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There can be no assurance that future legislative, administrative or judicial changes or interpretations, which changes or interpretations could apply retroactively, will not affect the accuracy of the statements or conclusions set forth in the tax opinions or this tax discussion. No rulings have been or will be sought from the Internal Revenue Service concerning the tax consequences of the merger, and the tax opinions and this tax discussion as to the material U.S. federal income tax consequences of the merger will not be binding on the Internal Revenue Service or any court.

The tax opinions and this tax discussion do not purport to contain a complete analysis or discussion of all potential tax effects relevant to the merger. Thus, FEI shareholders are urged to consult their own tax advisors as to the specific tax consequences to them of the merger, including tax return reporting requirements, the applicability and effect of federal, state, local, foreign and other applicable tax laws and the effect of any proposed changes in the tax laws.

As set forth in the tax opinions, Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel to FEI, and Kaye Scholer LLP, counsel to Veeco, are of the opinion that the merger will qualify as a "reorganization" within the meaning of Section 368(a) of the Internal Revenue Code and that the following material U.S. federal income tax consequences will result from such qualification:

FEI shareholders will not recognize any gain or loss upon the exchange of their FEI common stock solely for shares of Veeco common stock pursuant to the merger, except for gain resulting from the receipt of cash instead of a fractional share of Veeco common stock;

The aggregate tax basis of the shares of Veeco common stock received solely in exchange for shares of FEI common stock pursuant to the merger, including fractional shares of Veeco common stock for which cash is received, will be the same as the aggregate tax basis of the shares of FEI common stock exchanged for them;

The holding period for shares of Veeco common stock received in exchange for shares of FEI common stock pursuant to the merger will include the holding period of the shares of FEI common stock exchanged for them; and

An FEI shareholder who receives cash instead of a fractional share of Veeco common stock will be treated as having received the fractional share in the merger and then as having the fractional share redeemed by Veeco in a distribution under section 302 of the Internal Revenue Code. Accordingly, these shareholders should generally recognize gain or loss equal to

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the difference, if any, between the tax basis of the fractional share and the amount of cash received. The gain or loss generally will be capital gain or loss and, in the case of individuals, long-term capital gain (eligible for reduced rates of taxation) or loss if the FEI common stock exchanged has been held for more than one year.

Other Tax Matters. It is a condition to the obligations of FEI and Veeco to consummate the merger that Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel to FEI, and Kaye Scholer LLP, counsel to Veeco, each renders an opinion to its respective client, dated as of the closing date of the merger, to the effect that the merger will qualify as a "reorganization" within the meaning of Section 368(a) of the Internal Revenue Code. These opinions will be based on updated representations contained in officer's certificates to be provided by FEI and Veeco as of the closing date of the merger, and on customary factual representations.

Accounting Treatment of the Merger

The merger will be accounted for using the purchase method for financial reporting and accounting purposes. After the merger, the results of operations of FEI will be included in the consolidated financial statements of Veeco.

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Regulatory Filings and Approvals Required to Complete the Merger

The merger is subject to the requirements of the HSR Act, which prevents some transactions from being completed until required information and materials are furnished to the Antitrust Division of the Department of Justice and the Federal Trade Commission and the appropriate waiting periods are terminated or expire. Veeco, FEI and Philips have filed the required information and materials with the Antitrust Division of the Department of Justice and the Federal Trade Commission. The requirements of the HSR Act will be satisfied if the merger is completed within one year after the termination or expiration of this waiting period. Additionally, the transaction is subject to notification to the Federal Cartel Office pursuant to the competition laws of Germany.

If, prior to the expiration of the waiting period, the FTC or the Antitrust Division should request additional information or documentary material under the HSR Act, completion of the merger could be delayed until after the companies have substantially complied with the request. On August 12, 2002, the Antitrust Division of the Department of Justice contacted Veeco and FEI and has advised them that it intends to conduct a preliminary inquiry into the transaction. At any time before or after the closing of the merger, the Antitrust Division of the Department of Justice, the Federal Trade Commission, as well as a foreign regulatory agency or government could challenge the merger and take action under applicable antitrust laws. Other persons could take action under applicable antitrust laws, including seeking to enjoin the merger. Additionally, at any time before or after the completion of the merger, even if the applicable waiting period under the HSR Act expired or was terminated, any state could take action under applicable antitrust laws. A challenge could be made to the merger and, if such a challenge is made, FEI and Veeco might not prevail.

Both Veeco and FEI conduct business in a multitude of foreign nations. The laws of these nations, including, Germany, may require Veeco and/or FEI to make certain filings with certain regulatory bodies in these countries. In Germany, the merger is subject to review by the German Federal Cartel Office. The parties must observe a waiting period that may be extended by the Federal Cartel Office if it should decide that the transaction warrants further investigation. Veeco and FEI are required to make pre-merger notification filings in Germany and intend to make such filings shortly. Veeco FEI is required to make a post-closing notification filing in Japan in connection with the merger.

Neither Veeco nor FEI is aware of any other material governmental or regulatory approval required for closing the merger, other than the effectiveness of the registration statement of which this joint proxy statement/prospectus forms a part and compliance with the Delaware General Corporation Law and the Oregon Business Corporation Act. See the section titled "The Merger Agreement Certain Covenants Antitrust Matters" on page 83.

Closing and Effectiveness of the Merger

Unless otherwise agreed by Veeco and FEI, the merger will be completed no later than the second business day following the date on which all of the conditions to closing of the merger are satisfied or waived, including the approval of the merger by the FEI shareholders and the approval of the issuance of Veeco common stock in connection with the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock by the Veeco stockholders. The merger will become effective upon the filing of articles of merger with the Secretary of State of Oregon.

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THE MERGER AGREEMENT

The following is a brief summary of certain material provisions of the merger agreement. This summary does not purport to be complete and is qualified in its entirety by reference to the merger agreement. The merger agreement is attached as Appendix A to this joint proxy statement/prospectus. We urge you to carefully review the merger agreement.

Structure of the Merger

The merger agreement provides that Venice Acquisition Corp. will be merged with and into FEI, the separate existence of Venice Acquisition Corp. will cease and FEI will continue as the surviving corporation and a direct wholly-owned subsidiary of Veeco. As a result of the merger, the surviving corporation will possess all the property, rights and franchises of FEI and Venice Acquisition Corp., and will be subject to all the debts, restrictions and duties of FEI and Venice Acquisition Corp.

Closing of the Merger

The closing of the merger will take place no later than the second business day after satisfaction or waiver of the conditions to the merger (unless another time is agreed to by the parties). At such time, Veeco and FEI will file articles of merger with the Secretary of State of Oregon and make all other filings or recordings required by the Oregon Business Corporation Act in connection with the merger. The merger will become effective upon such filing with the Secretary of State of Oregon or at such later time as is specified in the articles of merger. If the FEI shareholders and the Veeco stockholders approve the merger, the closing of the merger is expected to occur as soon as practicable following the FEI special meeting and the Veeco special meeting.

Merger Consideration

General. As of the closing of the merger, each outstanding share of FEI common stock will be converted into the right to receive 1.355 shares of Veeco common stock. Veeco will not issue fractional shares of Veeco common stock in exchange for shares of FEI common stock in the merger. Veeco will pay a holder of shares of FEI common stock an appropriate amount of cash in lieu of any fractional shares otherwise issuable. Such cash amount will be based upon the closing price per share of Veeco common stock on the trading day immediately preceding the closing of the merger.

No Appraisal/Dissenters' Rights. In connection with the merger, neither Veeco nor FEI shareholders are entitled to appraisal/dissenters' rights under the Delaware General Corporation Law or the Oregon Business Corporation Act.

Exchange of Certificates. On or prior to the closing date of the merger, Veeco will select a reputable bank or trust company to act as exchange agent in the merger. Promptly, but no more than three days after the closing of the merger, Veeco will deposit with the exchange agent certificates representing the shares of Veeco common stock issuable in the merger and cash sufficient to make payments in lieu of fractional shares in the merger.

As soon as is reasonably practicable after the closing of the merger, the exchange agent will mail to each record holder of a certificate which, before the merger, represented shares of FEI common stock:

A letter of transmittal; and

Instructions for use in effecting the surrender of the certificate(s) previously representing shares of FEI common stock in exchange for certificates representing Veeco common stock.

Upon surrender of such certificate(s) to the exchange agent, together with a properly completed letter of transmittal covering such shares and other customary documentation, the holder of such

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certificate(s) will be entitled to receive in exchange therefor a certificate representing the number of whole shares of Veeco common stock that such holder has the right to receive and cash in lieu of any fractional share. The stock certificate previously representing shares of FEI common stock shall be canceled. As of the closing of the merger, all shares of FEI common stock will no longer be outstanding and will automatically be canceled and retired and will cease to exist. Each holder of a certificate previously representing any such shares of FEI common stock will cease to have any rights with respect to those shares, other than the right to receive the shares of Veeco common stock (and cash in lieu of fractional shares) upon surrender of the certificate(s) representing such shares of FEI common stock, as contemplated by the merger agreement. **FEI shareholders should not forward their FEI stock certificates to the exchange agent without a letter of transmittal. FEI shareholders should NOT return their stock certificates with the enclosed proxy.**

FEI Options. As of the closing of the merger, each outstanding option to purchase shares of FEI common stock will be assumed by Veeco and converted, in accordance with its terms, into an option to purchase the number of shares of Veeco FEI common stock equal to 1.355 multiplied by the number of shares of FEI common stock which could have been obtained immediately prior to the merger upon the exercise of such option, rounded to the nearest whole share. Following the closing of the merger, the exercise price under any such option will be equal to the exercise price per share of FEI common stock thereunder immediately prior to the closing of the merger, divided by 1.355, rounded to the nearest whole cent. In general, the other terms and conditions of each FEI option will continue to apply in accordance with the terms of the stock option plan or other arrangement under which the option was issued. Not later than the date on which the merger becomes effective, Veeco will file a registration statement on Form S-8 with the SEC relating to the shares of Veeco common stock issuable upon the exercise of FEI options assumed by Veeco in the merger.

FEI Convertible Debt. The FEI notes shall be assumed by Veeco and become convertible solely into such number of shares of Veeco FEI common stock that would have been issued if the FEI notes had been converted into FEI common stock immediately prior to the closing of the merger. The FEI notes shall continue to be governed by and subject to the Indenture, dated as of August 3, 2001, between FEI and BNY Western Trust Company under which the FEI notes were originally issued, but shall be convertible solely into shares of Veeco FEI common stock as described above. On a date no later than the date on which the merger becomes effective, Veeco will file a registration statement on Form S-3 relating to the resale of the FEI notes and the Veeco common stock issuable upon conversion of the FEI notes.

Representations and Warranties

The merger agreement contains generally reciprocal representations and warranties made by each of Veeco and Venice Acquisition Corp., on the one hand, and FEI, on the other, regarding aspects of their respective businesses, financial condition and structure, as well as other facts pertinent to the merger. These representations and warranties relate to the following subject matters with respect to each party:

Due organization, existence and good standing, corporate power and authority, and qualifications or licensing to do business;

Capitalization;

The authorization, execution and delivery of the merger agreement and the validity and enforceability thereof;

Compliance in all material respects with the Securities Act and the Exchange Act in connection with the documents filed with the SEC;

The absence of undisclosed material liabilities;

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Compliance with laws;

The absence of violations, breaches or defaults under charter documents, laws, orders or material agreements resulting from the execution and delivery of the merger agreement and compliance therewith;

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Consents and approvals necessary for consummation of the merger;

The absence of material agreements, judgments, injunctions, orders or decrees which could restrict any current or future business activities;

The identification of, and certain matters relating to, material agreements;

The absence of pending litigation and court orders or judgments;

Certain tax matters;

The absence of certain changes or events since December 31, 2001;

Certain employee benefit and labor matters;

Certain matters relating to owned or used intellectual property;

The absence of liens and title to property;

Certain matters relating to environmental liabilities;

Arrangements with investment bankers or brokers;

The receipt of a fairness opinion from the respective parties' financial advisors, dated the date of the merger agreement; and

Approvals by the boards of directors.

In addition, Veeco and Venice Acquisition Corp. made an additional representation and warranty regarding:

The amendment to the Veeco Rights Agreement.

The representations and warranties of Veeco and Venice Acquisition Corp. and FEI set forth in the merger agreement are subject to exceptions set forth in a disclosure schedule, dated the date of the merger agreement, and to matters otherwise disclosed in the documents filed by Veeco and FEI with the SEC.

The representations and warranties of the parties under the merger agreement or in certificates delivered pursuant to the merger agreement expire upon completion of the merger.

Certain Covenants

Interim Operations. Veeco and FEI have agreed that, prior to the earlier to occur of termination of the merger agreement pursuant to its terms or the closing of the merger, they will conduct their businesses only in the ordinary course in substantially the same manner as conducted before the signing of the merger agreement and in compliance with all applicable laws. Veeco and FEI have also agreed during such time to attempt to preserve unimpaired at the closing of the merger their ongoing businesses by using their reasonable commercial efforts to:

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Preserve intact their present lines of business;

Keep available the services of their officers and key employees; and

Maintain their rights and franchises and preserve their relationships with material customers, suppliers and others with whom they have business dealings.

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Veeco and FEI have agreed, prior to the closing of the merger, to confer with each other concerning material operational matters and to report to each other periodically concerning the status of their respective business, operations and finances. Further, subject to certain scheduled exceptions, Veeco and FEI (which shall include their subsidiaries) have specifically agreed not to do, cause or permit any of the following to occur, unless disclosed in the disclosure schedules to the merger agreement, without the prior written consent of the other (which consent is not to be unreasonably withheld or delayed):

Cause or permit amendments to their certificate or articles of incorporation or bylaws;

Declare or pay dividends or make other distributions on their capital stock, or split, combine or reclassify any of their capital stock or issue any securities in exchange or substitution for shares of their capital stock;

Repurchase or otherwise acquire any shares of their capital stock, except from former employees, directors and consultants in accordance with agreements in effect on the date of the merger agreement relating to repurchase of shares on termination of service;

Sell or issue any shares of capital stock or any securities convertible into or exchangeable or exercisable for shares of its capital stock, other than under option plans, upon exercise or conversion of options, convertible debt or other convertible securities of either Veeco or FEI or under either Veeco's or FEI's employee stock purchase plans;

Take or fail to take any action that would reasonably be expected to cause the merger to fail to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code;

Acquire or agree to acquire by merger or consolidation, or by purchasing a substantial portion of the assets of, or by any other manner, any business or any corporation, partnership, association or other business organization or division thereof or otherwise acquire or agree to acquire any assets which could be material to the acquiror (excluding the acquisition of assets in the ordinary course, which assets do not constitute a business unit, division or all or substantially all of the assets of the transferor);

Other than in the ordinary course of business (1) enter into any new material line of business or (2) incur or commit to any capital expenditures or any obligations or liabilities in connection therewith;

Issue, deliver, sell, pledge, dispose of, or otherwise encumber, or authorize or propose the issuance, delivery, sale, pledge, disposition or encumbrance of, any of their respective shares of capital stock of any class, any debt securities or any securities convertible into or exercisable for, or any rights, warrants, calls, or options to acquire, any such shares or debt securities, or enter into any commitment, arrangement, undertaking or agreement with respect to any of the foregoing, other than or in connection with (1) the issuance of shares upon the exercise of options or other convertible securities in accordance with their present terms or pursuant to options or other stock-based awards granted pursuant to clause (2) below, (2) the granting of options or other stock-based awards, under benefit plans outstanding on the date of the merger agreement in the ordinary course of business and in individual and aggregate amounts consistent with past practice or (3) issuances, sales or deliveries by a wholly-owned subsidiary to its parent;

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Adopt a plan of complete or partial liquidation, dissolution, consolidation, restructuring, recapitalization or other reorganization;

Except as required by generally accepted accounting principles, make any change in accounting methods, principles or practices;

Enter into any material joint venture, partnership or similar arrangement;

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Sell, lease or otherwise dispose of, or agree to sell, lease or otherwise dispose of, any of its assets (including capital stock of subsidiaries) other than in the ordinary course of business consistent with past practice;

(1) Make any loans, advances or capital contributions to, or investments in, any other person, other than (A) loans or investments in a subsidiary or (B) in the ordinary course of business consistent with past practice which are not, individually or in the aggregate, material (provided that none of such transactions referred to in this clause (B) presents a material risk of making it more difficult to obtain any consent required in connection with the merger under applicable law) or (2) except in the ordinary course consistent with past practice, incur any indebtedness for borrowed money or guarantee any such indebtedness of another person, issue or sell any debt securities or warrants or other rights to acquire any debt securities, guarantee any debt securities of another person, enter into any "keep well" or other agreement to maintain any financial statement condition of another person (other than a wholly-owned subsidiary) or enter into any arrangement having the economic effect of any of the foregoing;

Except as required by applicable law or by the terms of any collective bargaining agreement or other agreement in effect as of the date of the merger agreement, increase the amount of compensation of, or pay any severance to (other than in the ordinary course consistent with past practice), any director, officer or (other than in the ordinary course consistent with past practice) key employee, or make any increase in or commitment to increase or accelerate the payment of any employee benefits, grant any additional stock options, adopt or amend or make any commitment to adopt or amend any benefit plan or fund or make any contribution to any benefit plan or any related trust or other funding vehicles, other than regularly scheduled contributions to trust funding qualified plans; and shall not accelerate the vesting of, or the lapsing of restrictions with respect to any stock option, and any option granted or committed to be granted after the date of the merger agreement shall not accelerate as a result of approval or consummation of any transaction contemplated by the merger agreement;

Transfer or license to any person or otherwise extend, amend or modify any rights to any intellectual property owned by them or their subsidiaries, other than in the ordinary course of business or pursuant to any contracts currently in place (that have been disclosed in writing to the other party hereto prior to the date of the merger agreement);

Other than as expressly permitted under the merger agreement, take any action for the purpose of preventing, delaying or impeding the consummation of the merger or the other transactions contemplated by the merger agreement; or

Take, or agree to take, any of the actions described above.

Access. Until the closing of the merger, upon reasonable notice, Veeco and FEI have agreed to provide each other with reasonable access to their respective properties, books, records, tax returns, contracts, information, documents and personnel upon reasonable request during normal business hours.

Comfort Letters. Veeco and FEI have also agreed to use all reasonable efforts to cause Ernst & Young LLP, independent public accountants to Veeco, and Deloitte & Touche LLP, independent public accountants to FEI, to deliver customary "comfort letters" to Veeco and FEI, respectively, in connection with the filing with the SEC of the registration statement of which this joint proxy statement/prospectus forms a part.

Headquarters. Veeco and FEI have agreed that the headquarters of Veeco FEI will be located at the current headquarters of Veeco in Woodbury, New York.

Board of Directors; Officers. Veeco has agreed that, if the merger is completed, it will take all actions necessary to ensure that the Veeco FEI board of directors shall consist of thirteen members,

seven of whom shall be nominated by Veeco from the current members of its board of directors, five of whom shall be nominated by FEI from the current members of its board of directors and one of whom shall be nominated by PBE in accordance with the terms of an investor agreement among Veeco, FEI and PBE. Veeco has also agreed that if the merger is completed, it will cause, as of the closing of the merger, Vahé A. Sarkissian to be appointed the Chairman and Chief Strategy Officer of Veeco FEI. Edward H. Braun will remain Veeco FEI's President and Chief Executive Officer and John F. Rein, Jr. will remain Veeco FEI's Vice President, Chief Financial Officer, Treasurer and Secretary.

Employment Agreements. Veeco has agreed that, prior to the closing of the merger, Veeco shall use commercially reasonable efforts to enter into employment agreements, to be effective as of the closing of the merger, with senior officers of Veeco and FEI as mutually agreed upon by Veeco and FEI, which employment agreements shall have terms acceptable to the Veeco and FEI board of directors. As of the date of the merger agreement, Veeco and each of Edward H. Braun and Vahé A. Sarkissian executed employment agreements which will become effective at the closing of the merger.

Employee Stock Purchase Plan. Veeco has agreed that at the closing of the merger, the FEI Employee Stock Purchase Plan, or the FEI ESPP, and each outstanding purchase right with respect to all open offering periods under the FEI ESPP will be assumed by Veeco FEI. Each FEI purchase right shall continue to have, and be subject to, the terms and conditions set forth in the FEI ESPP and the documents governing the FEI purchase right, except that the purchase price of Veeco FEI common stock under each FEI purchase right shall be the lower of (1) the quotient determined by dividing eighty-five percent (85%) of the fair market value of a share of FEI common stock on the offering date of each assumed offering period by 1.355, the merger exchange ratio, or (2) eighty-five percent (85%) of the fair market value of Veeco FEI common stock on the applicable purchase date of each assumed offering period occurring after the closing of the merger. Subject to the other terms of the merger agreement, the FEI purchase rights shall be exercised at such times following the closing of the merger as set forth in the FEI ESPP, and each participant shall, accordingly, be issued Veeco FEI common stock at such times. Veeco also agreed that the employees of FEI who become employees of Veeco FEI or any subsidiary of Veeco FEI may participate in the employee stock purchase plan sponsored by Veeco, subject to the terms and conditions of such plan.

FEI has agreed that prior to the closing of the merger, it will take any and all action that may be necessary under the FEI ESPP to ensure that:

All offering periods under the FEI ESPP that are open at the closing of the merger and are assumed by Veeco under the merger agreement, shall terminate, and the applicable purchase date for all FEI purchase rights shall occur, on or before December 31, 2002;

The FEI ESPP shall terminate on or before December 31, 2002; and

The offering period scheduled to begin on or about September 1, 2002 shall be the last offering period to commence under the FEI ESPP, and such offering shall terminate, and the applicable purchase date shall occur, on December 31, 2002.

Veeco agreed to implement or continue, as applicable, the last offering period and all offering periods under the FEI ESPP that are open at the closing of the merger and are assumed by Veeco until the earlier of:

December 31, 2002; or

The date that the applicable offering period would have otherwise terminated, without additional corporate action, pursuant to the FEI ESPP.

Terms of Employment; Employee Benefits. Veeco has agreed that until the first anniversary of the closing of the merger, Veeco FEI shall (1) provide the employees of FEI who remain employed with Veeco FEI or any subsidiary of Veeco FEI in the U.S. after the closing of the merger with terms and conditions of employment that are substantially comparable in the aggregate to those provided to

similarly situated employees of Veeco FEI or (2) continue to provide such employees with terms and conditions of employment that are substantially comparable in the aggregate to those provided by FEI immediately prior to the closing of the merger.

Except to the extent necessary to avoid duplication of benefits, and, to the extent permitted under applicable law, Veeco has also agreed to provide these continuing U.S. employees with full credit, for purposes of eligibility and vesting under any employee benefit plans or arrangements maintained by Veeco FEI or any subsidiary of Veeco FEI in which such employees are eligible to participate, for such employees' service with FEI to the same extent recognized by FEI immediately prior to the closing of the merger. Veeco FEI shall cause any and all pre-existing condition limitations, eligibility waiting periods and evidence of insurability requirements under any welfare plan to be waived with respect to these continuing U.S. employees and their eligible dependents and shall provide them with credit for any co-payments, deductibles and offsets (or similar payments) made prior to the closing of the merger for purposes of satisfying any applicable deductible, out-of-pocket, or similar requirement under any employee benefit plans or arrangements maintained by Veeco FEI or any subsidiary of Veeco FEI in which such employees are eligible to participate on and after the closing of the merger. Nothing contained in the merger agreement shall be construed to limit the ability of Veeco or a subsidiary of Veeco, following the closing of the merger, to terminate the employment of any employee or to amend or terminate any Veeco or FEI benefit plan in accordance with its terms.

Veeco has also agreed to provide employees of FEI who remain employed with Veeco FEI, or any subsidiary of Veeco FEI after the closing of the merger, with terms and conditions of employment that are substantially similar to those provided by FEI or any subsidiary of FEI immediately prior to the closing of the merger as and to the extent required by applicable law.

Disclosure. Veeco and FEI have agreed to consult with each other before issuing any press release or otherwise making any public statement with respect to the merger or the other transactions contemplated by the merger agreement.

Registration Statement on Form S-3. Veeco has agreed that it shall file with the SEC, no later than the closing of the merger, a registration statement on Form S-3, relating to the resale of the FEI notes and the common stock issuable upon conversion of the FEI notes.

Listing of Shares. Veeco has agreed to cause the shares of Veeco common stock being issued, and those being reserved for issuance, in the merger to be approved for listing (subject to notice of issuance) on The Nasdaq Stock Market.

Antitrust Matters. As contemplated by the merger agreement, Veeco and FEI have filed the required notifications and materials under the HSR Act. Under the merger agreement, FEI and Veeco agreed to respond as promptly as practicable to:

Any inquiries or requests received from the Federal Trade Commission or the Department of Justice for additional information or documentation; and

Any inquiries or requests received from any state attorney general, foreign antitrust authority or other governmental authority in connection with antitrust or related matters.

Neither Veeco nor FEI nor any of their respective subsidiaries shall be required to hold separate or to divest or agree to divest any of their respective businesses or assets, or to take or agree to take any action or agree to any limitation that would be reasonably likely to have a material adverse effect on Veeco FEI (assuming the merger has been consummated) or would be reasonably likely to materially adversely impact the benefits expected to be derived by Veeco and FEI from consummation of the merger, and neither Veeco nor FEI shall be required to agree to or effect any divestiture, hold separate any business or take any other action that is not conditional on the consummation of the merger.

Other Covenants. The merger agreement contains additional covenants of Veeco, Venice Acquisition Corp. and FEI customary for transactions of this type, including covenants relating to:

The parties' obligation to use their reasonable best efforts to obtain consents to the consummation of the merger;

The parties' obligation to continue to file their tax returns and pay their taxes and debts as they become due;

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The obligation of the parties to give notice in the event they become aware of breaches, or circumstances that could lead to breaches, of representations and warranties or covenants;

Repayment of indebtedness owed to FEI and its subsidiaries by their affiliates;

Compliance by Veeco with "blue sky" laws in connection with the merger;

Cooperation in the preparation and filing of all returns, questionnaires, applications or other documents regarding any real property transfer or gains, sales, use, transfer, value added, stock transfer or stamp taxes, any transfer, recording, registration or other fees or any similar taxes, which become payable in connection with the transactions contemplated by the merger agreement; and

The adoption of resolutions by each of the FEI board of directors and the Veeco board of directors that exempt for purposes of Section 16 of the Exchange Act the transactions contemplated by the merger agreement with respect to certain directors and executive officers of FEI.

Further, the merger agreement contains covenants relating to matters discussed elsewhere in this joint proxy statement/prospectus, including:

Veeco's obligations with respect to assumption of FEI stock options in connection with and following the completion of the merger; and

Veeco's obligations with respect to the continuation of existing indemnification arrangements relating to FEI's officers and directors as of the date of the merger agreement, and Veeco's obligations with respect to the continuation of a directors' and officers' liability insurance policy for such persons.

No Solicitation

Veeco. Until the merger is completed or the merger agreement is terminated, Veeco has agreed not to take any of the following actions directly or indirectly and to use reasonable best efforts to cause its subsidiaries and its and their representatives, agents and employees not to directly or indirectly:

Solicit, initiate, encourage, induce or facilitate the making, submission or announcement of a Veeco Acquisition Proposal (as defined below);

Furnish information regarding Veeco or its subsidiaries to any person or entity in connection with or in response to a Veeco Acquisition Proposal or an inquiry or indication of interest that could lead to a Veeco Acquisition Proposal;

Engage in discussions or negotiations with any person or entity with respect to a Veeco Acquisition Proposal;

Approve, endorse or recommend any Veeco Acquisition Proposal; or

Enter into any letter of intent or similar document or any contract contemplating or otherwise relating to any Veeco Acquisition Proposal.

A "Veeco Acquisition Proposal" means an offer, proposal, inquiry or indication of interest contemplating or otherwise relating to a Veeco Acquisition Transaction, and a "Veeco Acquisition Transaction" is any of the following:

Any merger, reorganization, consolidation, share exchange, recapitalization, business combination, issuance of securities, purchase or acquisition of securities, tender offer, exchange offer or other similar transaction in which (1) Veeco or any material Veeco subsidiary is a constituent corporation, (2) a person, entity or "group" (as defined and described under Section 13(d) of the Exchange Act) of persons or entities directly or indirectly acquires beneficial ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of Veeco or a material Veeco subsidiary, or (3) Veeco or any material Veeco subsidiary issues securities representing more than 15% of the outstanding

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securities of any class of voting securities of Veeco or such material Veeco subsidiary;

Any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets (other than in the ordinary course of business) that constitute or account for 15% or more of the consolidated net revenues, net income or assets (measured by fair market value) of Veeco and the Veeco subsidiaries, on a consolidated basis; or

Any liquidation or dissolution of Veeco.

However, before the approval of the issuance of the shares of Veeco common stock in the merger by Veeco's stockholders, Veeco can engage in discussions and take any other actions that may be reasonably required for the purpose of becoming informed with respect to, a *bona fide*, unsolicited, written Veeco Acquisition Proposal that is submitted to Veeco (and not withdrawn) if Veeco's board of directors reasonably determines in good faith after due consideration that such Veeco Acquisition Proposal would reasonably be likely to result in a Superior Veeco Proposal (as defined below) if:

Neither Veeco nor any representative of Veeco has violated the nonsolicitation and related obligations under the merger agreement;

Veeco's board of directors concludes in good faith that failure to take such action would be reasonably likely to result in a breach of its fiduciary obligations to Veeco's stockholders under applicable law, after consultation with its outside legal counsel; and

Before any such discussions or other action, Veeco receives from the person or entity making the Veeco Acquisition Proposal an executed confidentiality arrangement containing customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such person or entity by or on behalf of Veeco.

A "Superior Veeco Proposal" means an unsolicited, *bona fide*, written offer by a third party with respect to a Veeco Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read 50%) on terms that the board of directors of Veeco determines make it more favorable to the stockholders of Veeco than the terms of the merger; *provided*, that, any such offer will not be a Superior Veeco Proposal if any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party. The board of directors must make this determination in good faith after taking into account, among other relevant considerations, consultation with an independent financial advisor of nationally recognized reputation.

Veeco has agreed to promptly advise FEI of any Veeco Acquisition Proposal, including the identity of the person or entity making or submitting such Veeco Acquisition Proposal and the terms thereof, that is made or submitted by any person or entity after the date of the merger agreement. Veeco has also agreed to keep FEI reasonably informed as to the status of any such Veeco Acquisition Proposal.

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FEI. Until the merger is completed or the merger agreement is terminated, FEI has agreed not to take any of the following actions directly or indirectly and to use reasonable best efforts to cause its subsidiaries and their representatives, agents and employees not to directly or indirectly:

Solicit, initiate, encourage, induce or facilitate the making, submission or announcement of an FEI Acquisition Proposal (as defined below);

Furnish information regarding FEI or its subsidiaries to any person or entity in connection with or in response to an FEI Acquisition Proposal or an inquiry or indication of interest that could lead to an FEI Acquisition Proposal;

Engage in discussions or negotiations with any person or entity with respect to an FEI Acquisition Proposal;

Approve, endorse or recommend any FEI Acquisition Proposal; or

Enter into any letter of intent or similar document or any contract contemplating or otherwise relating to any FEI Acquisition Proposal.

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An "FEI Acquisition Proposal" means an offer, proposal, inquiry or indication of interest contemplating or otherwise relating to an FEI Acquisition Transaction, and an "FEI Acquisition Transaction" is any of the following:

Any merger, reorganization, consolidation, share exchange, recapitalization, business combination, issuance of securities, purchase or acquisition of securities, tender offer, exchange offer or other similar transaction in which (1) FEI or any material FEI subsidiary is a constituent corporation, (2) a person, entity or "group" (as defined and described under Section 13(d) of the Exchange Act) of persons or entities directly or indirectly acquires beneficial ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of FEI or a material FEI subsidiary, or (3) FEI or any material FEI subsidiary issues securities representing more than 15% of the outstanding securities of any class of voting securities of FEI or such material FEI subsidiary;

Any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets (other than in the ordinary course of business) that constitute or account for 15% or more of the consolidated net revenues, net income or assets (measured by fair market value) of FEI and the other FEI subsidiaries, on a consolidated basis; or

Any liquidation or dissolution of FEI.

However, before the approval of the merger by FEI's shareholders, FEI can engage in discussions and take any other actions that may be reasonably required for the purpose of becoming informed with respect to a *bona fide*, unsolicited, written FEI Acquisition Proposal that is submitted to FEI (and not withdrawn) if FEI's board of directors reasonably determines in good faith after due consideration that such FEI Acquisition Proposal would reasonably be likely to result in a Superior FEI Proposal (as defined below) if:

Neither FEI nor any representative of FEI has violated the nonsolicitation and related obligations under the merger agreement;

FEI's board of directors concludes in good faith that failure to take such action would be reasonably likely to result in a breach of its fiduciary obligations to FEI's shareholders under applicable law, after consultation with its outside legal counsel; and

Before any such discussions or other action, FEI receives from the person or entity making the FEI Acquisition Proposal an executed confidentiality arrangement containing customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such person or entity by or on behalf of FEI.

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A "Superior FEI Proposal" means an unsolicited, *bona fide*, written offer made by a third party with respect to an FEI Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read "50%") on terms that FEI's board of directors determines in good faith to be more favorable to FEI's shareholders than the terms of the merger after having taken into account, among other relevant considerations, consultation with an independent financial advisor of nationally recognized reputation; *provided*, that, any such offer will not be a Superior FEI Proposal if any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party.

FEI has agreed to promptly advise Veeco of any FEI Acquisition Proposal, including the identity of the person or entity making or submitting such FEI Acquisition Proposal and the terms thereof, that is made or submitted by any person or entity after the date of the merger agreement. FEI has also agreed to keep Veeco reasonably informed as to the status of any such FEI Acquisition Proposal.

Board Recommendations

Calling Veeco Special Meeting; Recommendation of Veeco Board. Under the merger agreement, Veeco agreed to call the Veeco special meeting as promptly as practicable after the registration statement of which this joint proxy statement/prospectus forms a part is declared effective under the Securities Act by the SEC on a date mutually agreed upon by FEI and Veeco (but on a date no more than two business days after the FEI special meeting).

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Under the merger agreement, Veeco has agreed that this joint proxy statement/prospectus will include a statement to the effect that Veeco's board of directors recommends that Veeco's stockholders vote to approve the issuance of Veeco common stock in connection with the merger and vote to approve the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting. Further, Veeco has agreed that such recommendation to Veeco's stockholders by Veeco's board of directors will not be withdrawn or modified in a manner adverse to FEI unless, at any time prior to the approval of the issuance of Veeco common stock in the merger and the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco common stock by Veeco's stockholders the following occurs:

A Veeco Acquisition Proposal is made and is not withdrawn;

Veeco promptly provides FEI prior written notice of any meeting of Veeco's board of directors at which Veeco's board of directors will consider and determine whether such offer is a Superior Veeco Proposal;

Veeco's board of directors determines in good faith that such offer constitutes a Superior Veeco Proposal, after consultation with an independent financial advisor of nationally recognized reputation;

Veeco's board of directors determines in good faith, after consultation with Veeco's outside legal counsel that, in light of such Superior Veeco Proposal, the failure to withdraw or modify the Veeco board of directors' recommendation would be reasonably likely to result in a breach of the fiduciary obligations of Veeco's board of directors to Veeco's stockholders under applicable law; and

Neither Veeco nor any of its representatives has materially violated its nonsolicitation and related obligations under the merger agreement.

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Under the merger agreement, even if Veeco's board of directors withdraws or modifies its recommendation of the merger in the manner discussed above, Veeco will remain obligated to call and hold the Veeco special meeting for Veeco's stockholders to consider and vote upon the issuance of Veeco common stock in connection with the merger, the approval of a proposal to amend Veeco's Amended and Restated Certificate of Incorporation to increase the number of shares of authorized Veeco common stock and the approval of a proposal to change the name of Veeco Instruments Inc. to Veeco FEI Inc.

Calling FEI Special Meeting; Recommendation of FEI Board. Under the merger agreement, FEI agreed to call the FEI special meeting as promptly as practicable after the registration statement of which this joint proxy statement/prospectus forms a part is declared effective under the Securities Act by the SEC on a date mutually agreed upon by Veeco and FEI, but in no event later than 45 days after the date such registration statement is declared effective.

Under the merger agreement, FEI has agreed that this joint proxy statement/prospectus will include a statement to the effect that FEI's board of directors recommends that FEI's shareholders vote to approve the merger at the FEI special meeting. Further, FEI has agreed that such recommendation to FEI's shareholders by FEI's board of directors will not be withdrawn or modified in a manner adverse to Veeco unless, at any time prior to the approval of the merger by FEI's shareholders, the following occurs:

An FEI Acquisition Proposal is made and is not withdrawn;

FEI promptly provides Veeco prior written notice of any meeting of FEI's board of directors at which FEI's board of directors will consider and determine whether such offer is a Superior FEI Proposal;

FEI's board of directors determines in good faith that such offer constitutes a Superior FEI Proposal, after consultation with an independent financial advisor of nationally recognized reputation;

FEI's board of directors determines in good faith, after consultation with FEI's outside legal counsel that, in light of such Superior FEI Proposal, the failure to withdraw or modify the FEI board of directors' recommendation would be reasonably likely to result in a breach of the fiduciary obligations of FEI's board of directors to FEI's shareholders under applicable law; and

Neither FEI nor any of its representatives has materially violated its nonsolicitation and related obligations under the merger agreement.

Under the merger agreement, even if FEI's board of directors withdraws or modifies its recommendation of the merger in the manner discussed above, FEI will remain obligated to call and hold the FEI special meeting for FEI's shareholders to consider and vote upon the merger.

Conditions to the Merger

Conditions to the Obligations of Each Party. The obligations of FEI, Veeco and Venice Acquisition Corp. to complete the merger are subject to the satisfaction of the following conditions:

The registration statement of which this joint proxy statement/prospectus forms a part shall have been declared effective under the Securities Act and not be subject to any stop order or any proceeding seeking a stop order;

The merger shall have been approved by a majority vote of the holders of the shares of FEI common stock entitled to vote at the FEI special meeting in which a quorum is present;

The issuance of Veeco common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common

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stock shall have been approved by the vote of the holders of a majority of the outstanding shares of Veeco common stock entitled to vote at the Veeco special meeting in which a quorum is present;

No suit, action or other legal proceeding by any governmental authority which seeks to restrain or prohibit the consummation of the transactions contemplated by the merger agreement shall be pending, and no injunction or final judgment which restrains or prohibits the consummation of the transactions contemplated by the merger agreement shall have been entered on the closing date of the merger before any court or governmental authority;

The shares of Veeco common stock to be issued in the merger shall have been approved for listing (subject to notice of issuance) on The Nasdaq National Market;

The applicable waiting period under the HSR Act relating to the merger shall have expired or been terminated and any similar waiting period under or consent required by any applicable foreign antitrust law or regulation shall have been obtained, other than where the failure for such foreign waiting period to have expired or been terminated or foreign consent to have been obtained would not have a Material Adverse Effect, as defined below, on Veeco following the merger; and

No governmental authority shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation or executive order (whether temporary, preliminary or permanent), which is in effect and which has the effect of making the merger illegal or otherwise prohibiting consummation of the merger.

Conditions to the Obligations of Veeco and Venice Acquisition Corp. The obligations of Veeco and Venice Acquisition Corp. to complete the merger are subject to the satisfaction or waiver of the following further conditions:

FEI shall have performed and complied in all material respects with its covenants, agreements and conditions required by the merger agreement to be performed and complied with by FEI on or prior to the closing date of the merger;

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The representations and warranties of FEI in the merger agreement shall be true and correct as of the date of the merger agreement and as of the closing date of the merger as if made on and as of that date without regard to: (1) any materiality qualifications in any representation or warranty and (2) updates to FEI's disclosure schedules since the date of the merger agreement, except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on FEI;

Veeco shall have received a legal opinion from Kaye Scholer LLP that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code;

Veeco shall have received a certificate, dated the closing date of the merger, executed on behalf of FEI by its chief executive officer, confirming that certain conditions set forth in the merger agreement have been duly satisfied; and

There shall have been no Material Adverse Effect with respect to FEI.

As used in the merger agreement, a "Material Adverse Effect" means, with respect to Veeco or FEI (as applicable), a material adverse effect on (1) the business, assets, financial condition, operations or results of operations of such company and its subsidiaries, taken as a whole or (2) the ability of such company to consummate the transactions contemplated by the merger agreement prior to December 31, 2002; *provided, however*, that, for purposes of clause (1) above, in no event shall any of the following, alone or in combination with one another, be deemed to constitute, nor shall any of the

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following be taken into account in determining whether there has been or will be, a Material Adverse Effect:

Any effect resulting from compliance with the express terms and conditions of the merger agreement;

With limited exceptions, any effect resulting from the announcement or pendency of the merger;

Any changes in such company's stock price or trading volume (but excluding the reasons for such changes in the stock price or trading volume);

Any failure by such company to meet published revenue or earnings projections (but excluding the reasons for failing to meet such projections);

Any effect that results from changes affecting any of the industries in which such company operates generally or the United States economy generally (including prevailing interest rate and stock market levels);

Any effect that results primarily from changes affecting general worldwide economic or capital market conditions (which changes in each case do not disproportionately affect such company in any material respect); or

Stockholder class action litigation arising from allegations of a breach of fiduciary duty relating to the merger agreement.

Conditions to the Obligations of FEI. The obligation of FEI to complete the merger is subject to the satisfaction or waiver of the following further conditions:

Veeco and Venice Acquisition Corp. shall have performed and complied in all material respects with their covenants, agreements and conditions required by the merger agreement to be performed and complied by them on or prior to the

closing date of the merger;

The representations and warranties of Veeco and Venice Acquisition Corp. in the merger agreement shall be true and correct as of the date of the merger agreement and as of the closing date of the merger as if made on and as of that date without regard to (1) any materiality qualifications in any representation or warranty and (2) updates to Veeco's disclosure schedules since the date of the merger agreement, except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on Veeco;

FEI shall have received a legal opinion from Wilson Sonsini Goodrich & Rosati, Professional Corporation, that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code;

FEI shall have received a certificate, dated the closing date of the merger, executed on behalf of Veeco by its chief executive officer, confirming that certain conditions set forth in the merger agreement have been duly satisfied; and

There shall have been no Material Adverse Effect with respect to Veeco.

Termination of the Merger Agreement

Termination by Veeco or FEI. Either Veeco or FEI may terminate the merger agreement prior to the closing of the merger (whether before or after approval of the merger by FEI's shareholders and whether before or after the approval of the issuance of Veeco common stock in the merger by Veeco's stockholders) as follows:

By mutual written consent of Veeco and FEI;

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If the merger has not been completed by December 31, 2002 (although in certain circumstances that date can be extended until January 30, 2003); *provided*, that, a party cannot terminate the merger agreement for such reason if the failure for the merger to be completed is attributable to a failure of the party seeking to terminate the merger agreement to perform a material obligation required to be performed by that party at or before the closing of the merger;

If a court or other governmental authority issues a final and nonappealable order, decree or ruling, or takes other action that permanently restrains, enjoins or otherwise prohibits the merger;

If FEI's shareholders do not approve the merger at the FEI special meeting; *provided*, that, a party cannot terminate the merger agreement for such reason if the failure to obtain the approval of FEI's shareholders is attributable to the failure of that party to perform any material obligation required to be performed by it at or before the closing of the merger; or

If Veeco's stockholders do not approve the issuance of Veeco common stock in the merger or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting; *provided*, that, a party cannot terminate the merger agreement for such reason if the failure to obtain the approval of Veeco's stockholders is attributable to the failure of that party to perform any material obligation required to be performed by it at or before the closing of the merger.

Termination by Veeco. Veeco may terminate the merger agreement prior to the closing of the merger as follows (whether before or after approval of the merger by FEI's shareholders and whether before or after the approval of the issuance of Veeco common stock in the merger by Veeco stockholders):

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If at any time prior to the approval of the merger by FEI's shareholders an FEI Triggering Event (as defined below) occurs;

If any of FEI's covenants and agreements contained in the merger agreement are breached (and such breach is not cured within thirty days after notice thereof) and the effect of such breach is that FEI shall not have performed and complied in all material respects with its covenants, agreements and conditions required by the merger agreement to be performed and complied with by FEI on or prior to the closing of the merger; or

If FEI's representations and warranties are inaccurate as of the date of the merger agreement or become inaccurate as of a later date (as if made on such later date), with the effect that Veeco's closing condition described above relating to the accuracy of FEI's representations and warranties would not be satisfied; *provided*, that, if such breach is capable of cure, it has not been cured within thirty days after notice thereof.

An "FEI Triggering Event" will be deemed to have occurred if:

The board of directors of FEI fails to recommend that FEI's shareholders vote to approve the merger or withdraws or modifies its recommendation in a manner adverse to Veeco;

FEI fails to include in this joint proxy statement/prospectus a statement that the board of directors of FEI recommends that FEI's shareholders approve the merger;

The board of directors of FEI approves, endorses or recommends any FEI Acquisition Transaction;

FEI enters into a letter of intent or similar document or any contract providing for an FEI Acquisition Transaction;

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FEI fails to hold the FEI special meeting as promptly as practicable, and in any event within 45 days after the registration statement of which this joint proxy statement/prospectus forms a part is declared effective, unless a stop order is issued with respect to that registration statement or an injunction shall have been issued by a court or other governmental authority to restrain or prohibit consummation of the merger;

FEI or any of its subsidiaries violates in a material manner its nonsolicitation covenant set forth in the merger agreement;

FEI shall have failed to prepare and mail to its shareholders this joint proxy statement/prospectus;

A tender or exchange offer relating to FEI's securities shall have been commenced by a person or entity unaffiliated with Veeco, and FEI shall not have sent to its shareholders, pursuant to Rule 14e-2 promulgated under the Exchange Act, within ten business days after such tender or exchange offer is first published, sent, given or otherwise commenced, a statement disclosing that the FEI board of directors recommends rejection of such tender or exchange offer;

The FEI board of directors shall have granted any approval or taken any other step to exempt any transaction (other than the merger) from the requirements and provisions of Section 835 of the Oregon Business Corporation Act or other state anti-takeover statutes or regulations; or

FEI's board of directors shall have amended or resolved to amend any FEI preferred stock rights agreement, (commonly known as a "poison pill"), if any then in effect, so as to render it inapplicable to any FEI Acquisition Transaction (other than the merger).

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Termination by FEI. FEI may terminate the merger agreement prior to the closing of the merger as follows (whether before or after approval of the merger by FEI's shareholders and whether before or after the approval of the issuance of Veeco common stock in the merger by Veeco stockholders):

If at any time prior to the approval of the issuance of the Veeco common stock in the merger and the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock by Veeco's stockholders a Veeco Triggering Event (as defined below) occurs;

If any of Veeco's covenants and agreements contained in the merger agreement are breached (and such breach is not cured within thirty days after notice thereof) and the effect of such breach is that Veeco shall not have performed and complied in all material respects with its covenants, agreements and conditions required by the merger agreement to be performed and complied with by Veeco on or prior to the closing date of the merger; or

If Veeco's representations and warranties are inaccurate as of the date of the merger agreement or become inaccurate as of a later date (as if made on such later date), with the effect that FEI's closing condition described above relating to the accuracy of Veeco's representations and warranties would not be satisfied; *provided*, that, if such breach is capable of cure, it has not been cured within thirty days after notice thereof.

A "Veeco Triggering Event" will be deemed to have occurred if:

The board of directors of Veeco fails to recommend that Veeco's stockholders vote to approve the issuance of Veeco common stock in the merger or withdraws or modifies its recommendation to approve such share issuance or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock in a manner adverse to FEI;

Veeco fails to include in this joint proxy statement/prospectus a statement that the board of directors of Veeco recommends that Veeco's stockholders approve the issuance of Veeco

common stock in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock;

The board of directors of Veeco approves, endorses or recommends any Veeco Acquisition Transaction;

Veeco enters into a letter of intent or similar document or any contract providing for a Veeco Acquisition Transaction;

Veeco fails to hold the Veeco special meeting as promptly as practicable after the registration statement of which this joint proxy statement/prospectus forms a part is declared effective, and in any event within 2 business days after FEI's special shareholders meeting;

Veeco or any of its subsidiaries violates in a material manner its nonsolicitation covenant set forth in the merger agreement;

Veeco shall have failed to prepare and mail to its stockholders this joint proxy statement/prospectus;

A tender or exchange offer relating to Veeco's securities shall have been commenced by a person or entity unaffiliated with FEI, and Veeco shall not have sent to its stockholders, pursuant to Rule 14e-2 promulgated under the Exchange Act, within ten business days after such tender or exchange offer is first published, sent, given or otherwise commenced, a statement

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disclosing that the Veeco board of directors recommends rejection of such tender or exchange offer;

The Veeco board of directors shall have granted any approval or taken any other step to exempt any transaction (other than the merger) from the requirements and provisions of Section 203 of the Delaware General Corporation Law or other state anti-takeover statutes or regulations; or

Veeco's board of directors shall have amended or resolved to amend the Veeco Rights Agreement, dated as of March 13, 2001, between Veeco and American Stock Transfer and Trust Company in a manner so as to render it inapplicable to any Veeco Acquisition Proposal (other than with respect to the merger).

Fees and Expenses

Payment of Fees and Expenses. Generally, all fees and expenses incurred in connection with the merger agreement, the merger and the other transactions contemplated by the merger agreement will be paid by the party incurring the fees or expenses (whether or not the merger is completed), except that Veeco and FEI will share equally the fees and expenses relating to:

The filing, printing and mailing of this joint proxy statement/prospectus and the related registration statement; and

The filing of the premerger notification and report forms required by the HSR Act and any notice or other document required to be filed under any foreign antitrust law or regulation.

Veeco will be required to pay FEI's fees (including attorneys' fees, accountants' fees, financial advisory fees and filing fees) and reasonable, documented out-of-pocket expenses incurred in connection with the preparation and negotiation of the merger agreement and otherwise in connection with the merger not in excess of \$5 million in the following circumstances:

In the event that the merger agreement is terminated by Veeco or FEI because Veeco stockholders do not approve the issuance of Veeco common stock to FEI shareholders in the merger and the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting, and at or

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prior to the time of such termination a Veeco Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn.

If Veeco breaches its representations, warranties or covenants in a manner that gives FEI the right to terminate the merger agreement and FEI then terminates the merger agreement.

FEI will be required to pay Veeco's fees (including attorneys' fees, accountants' fees, financial advisory fees and filing fees) and reasonable, documented out-of-pocket expenses incurred in connection with the preparation and negotiation of the merger agreement and otherwise in connection with the merger not in excess of \$5 million in the following circumstances:

In the event that the merger agreement is terminated by Veeco or FEI because FEI shareholders do not approve the merger at the FEI special meeting, and at or prior to the time of such termination an FEI Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn.

If FEI breaches its representations, warranties or covenants in a manner that gives Veeco the right to terminate the merger agreement and Veeco then terminates the merger agreement.

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Termination Fees Payable by Veeco. Veeco will be required to pay FEI a termination fee of \$30 million if the merger agreement is terminated in the following circumstances:

By Veeco or FEI because Veeco's stockholders do not approve the issuance of Veeco common stock in the merger or the amendment to Veeco's Amended and Restated Certificate of Incorporation to increase the authorized shares of Veeco's common stock at the Veeco special meeting and, at or prior to the time the merger agreement is so terminated, a Veeco Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, and within 12 months following the termination either a Veeco Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read "40%") is consummated or Veeco enters into a letter of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following termination of the merger agreement.

By FEI (at any time prior to the approval of the issuance of Veeco common stock in the merger or the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco's common stock) in the event of a Veeco Triggering Event; *provided, however*, that if the merger agreement is terminated by FEI because of a breach by Veeco of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the termination of the merger agreement, either a Veeco Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read "40%") is consummated, or Veeco enters into a letter of intent or contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

Termination Fees Payable by FEI. FEI will be required to pay Veeco a termination fee of \$30 million if the merger agreement is terminated in the following circumstances:

By Veeco or FEI because FEI's shareholders do not approve the merger at the FEI special meeting and, at or prior to the time the merger agreement is so terminated, an FEI Acquisition Proposal has been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, and within 12 months following the termination either an FEI Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read "40%") is consummated or FEI enters into a letter of intent or

contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following termination of the merger agreement.

By Veeco (at any time prior to the approval of the merger by FEI's shareholders) in the event of an FEI Triggering Event; *provided, however*, that if the merger agreement is terminated by Veeco because of a breach by FEI of its nonsolicitation obligations, then such termination fee will be payable only if within 12 months following the termination of the merger agreement, either an FEI Acquisition Transaction (as defined above, except that all references to "15%" therein shall be deemed to read "40%") is consummated, or FEI enters into a letter of intent or contract providing for an FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following the termination of the merger agreement.

Amendment; Waiver

The merger agreement may be amended with the approval of FEI's board of directors and Veeco's board of directors at any time prior to the closing of the merger. However, after FEI's shareholders have approved the merger and Veeco's stockholders have approved the issuance of the shares of Veeco common stock in the merger, no amendment may be made that by law or NASD regulation requires further approval of Veeco's stockholders or FEI's shareholders, without first obtaining such approval. Any amendment to the merger agreement must be in writing and must be signed by each of the parties thereto. Any waiver under the merger agreement must be in writing and must be signed by the party to be charged with that waiver.

OTHER AGREEMENTS

Voting Arrangements With Veeco Stockholders

The following is a summary of voting agreements entered into by certain Veeco stockholders with, and related irrevocable proxies delivered by such stockholders to, FEI. Copies of such voting agreements and the irrevocable proxies granted to FEI by each Veeco stockholder party thereto are attached as Appendix C-1 and Appendix C-2 to this joint proxy statement/prospectus. This summary does not purport to be complete and is qualified in its entirety by reference to such documents. We urge you to carefully review such voting agreements and irrevocable proxies.

At the time of the execution of the merger agreement, Chorus, L.P., Veeco's largest stockholder, and each director and executive officer of Veeco, who held approximately 12.8% of the outstanding shares of Veeco common stock at that time, entered into voting agreements with FEI.

As of the Veeco record date, these Veeco stockholders held approximately % of the outstanding shares of Veeco common stock. Under these voting agreements, the Veeco stockholders have agreed to vote, and have granted irrevocable proxies to FEI to vote, their Veeco shares as follows:

In favor of approval of the issuance of Veeco common stock to FEI shareholders in the merger;

In favor of the approval of the amendment to Veeco's Amended and Restated Certificate of Incorporation increasing the authorized shares of Veeco common stock; and

Against any transaction or proposal that would prevent or nullify the merger or the merger agreement.

The Veeco stockholders may, however, vote their Veeco shares in favor of a superior Veeco proposal or related Veeco acquisition transaction.

The Veeco stockholders, other than Chorus, L.P., have also agreed not to transfer their shares of Veeco common stock prior to the earlier of (1) the closing of the merger or (2) the termination of the merger agreement.

The voting agreements and the irrevocable proxies terminate upon the earliest to occur of:

The closing of the merger;

The termination of the merger agreement in accordance with its terms; and

The execution of an amendment to the merger agreement that would cause each share of FEI common stock to be converted into the right to receive greater than 1.355 shares of Veeco common stock.

Other than inducing FEI to enter into the merger agreement, none of these Veeco stockholders received any additional consideration in exchange for entering into the voting agreement and granting the irrevocable proxy.

Voting Arrangements With FEI Shareholders

The following is a summary of material provisions of voting agreements entered into by certain FEI shareholders with, and the related irrevocable proxies delivered by such shareholders to, Veeco. Copies of such voting agreements and the irrevocable proxies granted to Veeco by each FEI shareholder party thereto are attached as Appendix B-1 and Appendix B-2 to this joint proxy statement/prospectus. This summary does not purport to be complete, and is qualified in its entirety by reference to such documents. We urge you to carefully review such voting agreements and irrevocable proxies.

At the time of the execution of the merger agreement, PBE, FEI's largest shareholder, and each director and executive officer of FEI, who held collectively approximately 27.4% of the outstanding shares of FEI common stock at that time, entered into voting agreements with Veeco.

As of the FEI record date, these shareholders held approximately % of the outstanding shares of FEI common stock. Under these voting agreements, the FEI shareholders have agreed to vote, and have granted irrevocable proxies to Veeco to vote, their FEI shares as follows:

In favor of approval of the merger; and

Against any transaction or proposal that would prevent or nullify the merger or the merger agreement.

The FEI shareholders may, however, vote their FEI shares in favor of a superior FEI proposal or related FEI acquisition transaction.

With the exception of PBE, FEI shareholders have also agreed not to transfer their shares of FEI common stock prior to the earlier of (1) the closing of the merger or (2) the termination of the merger agreement. PBE has agreed not to transfer its shares except (1) to a transferee that agrees to be bound by the voting agreement between PBE and Veeco and that enters into standstill arrangements identical in substance to those contained in the investor agreement among Veeco, FEI and PBE, or (2) in an FEI Acquisition Transaction, to a transferee that has made a Superior FEI Proposal.

The voting agreements and the irrevocable proxies terminate upon the earliest to occur of:

The closing of the merger;

The termination of the merger agreement in accordance with its terms; and

The execution of an amendment to the merger agreement that would cause each share of FEI common stock to be converted into the right to receive fewer than 1.355 shares of Veeco common stock.

Other than inducing Veeco to enter into the merger agreement, none of these FEI shareholders (other than PBE) received any additional consideration in exchange for entering into the voting agreement and granting the irrevocable proxy. As additional consideration for PBE entering into the voting agreement, Veeco also entered into an investor agreement with PBE and FEI, which agreement is more fully described below.

Investor Agreement With PBE

The following is a summary of material provisions of an investor agreement entered into among Veeco, FEI and PBE. A copy of such investor agreement is attached as Appendix G to this joint proxy statement/prospectus. This summary does not purport to be complete, and is qualified in its entirety by reference to such document. We urge you to carefully review such investor agreement.

At the time of the execution of the merger agreement, PBE, FEI's largest shareholder, entered into an investor agreement with Veeco and FEI.

Registration Rights

Under the terms of the investor agreement, Veeco agreed to grant to PBE certain demand registration and "piggyback" registration rights with respect to the shares of Veeco FEI common stock to be acquired by PBE in connection with the merger.

Specifically, Veeco has agreed that at any time following the closing of the merger, to and including the date on which the shares of Veeco FEI common stock owned by PBE may be publicly offered for sale in the United States by PBE without restriction and without registration under the

Securities Act, PBE shall have the right on two occasions to require Veeco FEI to file a registration statement under the Securities Act in respect of at least one-third of the Veeco FEI common stock held by PBE and its affiliates at the time of the closing of the merger.

In addition, if, at any time following the closing of the merger, Veeco FEI proposes, subject to certain exceptions, to register any shares of Veeco FEI common stock under the Securities Act, Veeco FEI shall give prompt written notice to PBE of its intention to do so, and, upon the written direction of PBE, Veeco FEI shall include in such registration statement such number of shares of Veeco FEI common stock owned by PBE and its affiliates as PBE may request, subject to customary provisions regarding "cutbacks."

Representation on Veeco FEI Board of Directors

Under the investor agreement, Veeco also has agreed that from the closing of the merger until the earlier of:

The first date on which Philips ceases to beneficially own at least 7.5% of the total current voting power of Veeco FEI; and

The date of the 2005 annual meeting of stockholders of Veeco FEI,

PBE may request that Veeco FEI include, as a nominee or designee to Class II (with a term expiring in 2005) of Veeco FEI's board of directors, one person nominated by PBE and reasonably satisfactory to Veeco FEI's board of directors. In the event of the death, incapacity, resignation or removal from Veeco FEI's board of directors of any PBE stockholder nominee, Veeco FEI shall cause another PBE stockholder nominee to be elected or appointed as a director to fill the vacancy.

Purchase of Additional Shares of Veeco FEI Common Stock

PBE and FEI also have agreed to terminate, as of the closing of the merger, Sections 2.1 and 5.18 of the Combination Agreement, dated November 15, 1996, between FEI and PBE and Section 4 of the Agreement, effective as of December 31, 2000, among FEI, PBE and Philips, which relate to the right of PBE to purchase additional shares of FEI common stock upon the exercise of FEI stock options. In return, Veeco assumed FEI's obligation to issue up to 524,846 additional Veeco shares of common stock to PBE upon the exercise of certain outstanding options. This includes the obligation to, at the sole option of PBE, transfer to PBE, no later than 30 calendar days following the close of the calendar quarter in which the closing of the merger occurs:

A number of shares of Veeco FEI common stock equal to the product of (1) 122.22%, multiplied by (2) the product of (A) the number of shares of FEI common stock issued and FEI stock options "cashed out" prior to the closing of the merger during such quarter upon exercise of such stock options, multiplied by (B) the exchange ratio in the merger; and

A number of shares of Veeco FEI common stock equal to the product of (1) 122.22%, multiplied by (2) the number of shares of Veeco FEI common stock issued and FEI stock options "cashed out" at or after the closing of the merger during such quarter upon exercise of such stock options.

Veeco FEI has also assumed FEI's obligation to, at the sole option of PBE, transfer to PBE, no later than 30 calendar days following the close of each calendar quarter following the calendar quarter of Veeco FEI in which the closing of the merger occurs, a number of securities equal to the product of (1) 122.22%, multiplied by (2) the number of securities issued and stock options "cashed out" during such quarter upon exercise of such stock options.

Standstill Provisions

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Under the investor agreement, until the earliest to occur of (1) the termination (prior to the closing of the merger) of the merger agreement, (2) a change in control of Veeco FEI, (3) the first date on which Philips ceases to beneficially own at least 7.5% of the total current voting power of Veeco FEI, and (4) the date of the 2005 annual meeting of stockholders of Veeco FEI, PBE is subject to certain standstill restrictions and has agreed that it shall not, and shall not permit its affiliates to, without the prior written approval of Veeco FEI:

Beneficially own or acquire beneficial ownership of Veeco FEI common stock or authorize or make a tender offer, exchange offer or other offer to acquire Veeco FEI common stock, if the number of shares of Veeco FEI common stock beneficially owned by Philips exceeds (or would exceed following such acquisition) (1) the number of shares of Veeco FEI common stock issued to PBE upon conversion of shares of FEI common stock in accordance with the merger agreement, plus (2) the number of shares of Veeco FEI common stock issuable to PBE pursuant to the exercise of FEI stock options assumed by Veeco in the merger, as described above, plus (3) the acquisition by PBE or its affiliates of up to an additional one percent (1%) of Veeco FEI's outstanding common stock;

Solicit or engage in any solicitation of proxies with respect to any Veeco FEI common stock;

Deposit any Veeco FEI common stock in a voting trust or subject any Veeco FEI common stock to any arrangement or agreement with any third party with respect to the voting of such Veeco FEI common stock;

Join a group of persons required to file a Schedule 13D under the Exchange Act (other than a group comprised solely of Philips entities);

Publicly announce any intention to seek amendment or rescission of the provisions of the investor agreement relating to the standstill restrictions of PBE or make any proposal to amend, support or rescind any proposal to amend or rescind, or publicly comment on any proposal to amend or rescind, the Rights Agreement, dated as of March 13, 2001, between Veeco and American Stock Transfer and Trust Company or any other stockholder protection rights plan or "poison pill" adopted by or entered into by Veeco FEI by way of merger, in the case of each proposal, that has not received the affirmative vote of a majority of the disinterested directors of Veeco FEI or a unanimous written consent of the board of directors of Veeco FEI; or

Publicly announce any intention or desire to acquire Veeco FEI or all or a material portion of the assets of Veeco FEI, engage in a transaction that would result in a change of control of Veeco FEI or take any other action that would otherwise be prohibited under the standstill restrictions of the investor agreement.

Other Obligations of PBE. Other obligations of PBE under the investor agreement include PBE's obligation to promptly notify Veeco FEI upon PBE's or its affiliates' acquisition of additional Veeco FEI common stock and to be present (and to cause all of its affiliates holding Veeco FEI common stock to be present), at Veeco FEI's request, in person or by proxy, at all meetings of stockholders of Veeco FEI so that all such shares of Veeco FEI common stock may be counted for purposes of determining the presence of a quorum at such meetings.

Veeco Stockholder Rights Plan. Under the investor agreement, Veeco also agreed that the rights under its Rights Agreement, dated as of March 13, 2001, between Veeco and American Stock Transfer and Trust Company, as previously amended, will not be exercisable as a consequence of the beneficial ownership by Philips or its affiliates of the shares of Veeco common stock issued to PBE pursuant to the merger agreement or upon the future acquisition of shares of Veeco FEI common stock purchased pursuant to the exercise of FEI stock options assumed by Veeco FEI as discussed above.

Termination of Investor Agreement. The investor agreement will terminate upon the earliest to occur of:

The date on which PBE shall have received a written opinion of legal counsel reasonably satisfactory to PBE and Veeco FEI and addressed to PBE and Veeco FEI stating that the shares of Veeco FEI common stock owned by PBE may be publicly offered for sale in the United States by PBE without restriction as to manner of sale and amount of securities sold and

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without registration under the Securities Act;

When all shares of Veeco FEI common stock held by PBE have been sold by PBE either pursuant to a registration statement or pursuant to a transaction or transactions exempt from the registration provisions of the Securities Act; and

The termination (prior to the closing of the merger) of the merger agreement in accordance with its terms.

Amendment Agreement among FEI, PBE and Philips

The following is a summary of material provisions of an amendment agreement entered into among FEI, Philips and PBE. A copy of such amendment agreement is attached as Appendix H to this joint proxy statement/prospectus. This summary does not purport to be complete, and is qualified in its entirety by reference to such document. We urge you to carefully review such amendment agreement.

At the time of the execution of the merger agreement, PBE, Philips and FEI entered into an agreement pursuant to which they agreed to terminate, at the closing of the merger, Section 5.16(e) of the Combination Agreement, dated November 15, 1996, between FEI and PBE, which subjects FEI's patents and patent applications to certain cross-licensing, pooling and other patent sharing or licensing arrangements with PBE. The termination of Section 5.16(e) does not modify or alter the validity or the scope of any cross-licensing, pooling or other patent sharing or licensing arrangements with PBE entered into prior to July 11, 2002.

Under the amendment agreement, PBE, Philips and FEI also have agreed to terminate Sections 1(b)(v) and 5 of the Agreement, effective as of December 31, 2000, among FEI, PBE and Philips, which provide for (1) FEI's opportunity to confidentially review Philips' patent applications in areas related to FEI's business and (2) cash payments to be made by Philips to FEI in 2002 and 2003.

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AMENDMENT TO VEECO'S AMENDED AND RESTATED CERTIFICATE OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF VEECO COMMON STOCK

Veeco's Amended and Restated Certificate of Incorporation authorizes the issuance of up to 60,000,000 shares of Veeco common stock. As of June 30, 2002, there were 29,134,679 shares of Veeco common stock issued and outstanding, and the following shares were reserved for issuance:

Shares	Reserved for Issuance:
6,122,330	Upon exercise of stock options which have been granted pursuant to Veeco's stock option plans or assumed by Veeco in connection with the mergers with CVC and Applied Epi
211,603	Upon exercise of warrants assumed in connection with the Applied Epi merger
878,286	Upon the exercise of stock options available for grant under Veeco's stock option plans
78,155	Upon the sale of stock pursuant to Veeco's employee stock purchase plan
5,712,802	Upon conversion of Veeco's 4 ¹ / ₈ % subordinated convertible notes due 2008
13,003,176	Total Shares Reserved For Issuance

After taking into account the shares issued and outstanding and the shares reserved for issuance as set forth above, but prior to consummation of the merger, Veeco has 17,862,145 shares of common stock available for issuance.

In connection with the merger, Veeco will be obligated to issue approximately 44,000,000 shares of Veeco common stock and to reserve the following shares for issuance:

Reserved for Issuance:

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Approximate Shares	
4,174,461	Upon exercise of stock options which have been granted pursuant to FEI's stock option plans and assumed by Veeco in connection with the merger
524,846	To PBE under the investor agreement
530,679	Upon the sale of stock pursuant to FEI's employee stock purchase plan
4,788,470	Upon conversion of FEI's 5.5% convertible subordinated notes due 2008
10,018,456	Total Shares Reserved For Issuance

At the Veeco special meeting, the Veeco stockholders will be asked to consider and vote upon a proposal, unanimously recommended and determined to be advisable by Veeco's board of directors, to amend Article 4 of Veeco's Amended and Restated Certificate of Incorporation, in order to increase the number of shares of Veeco common stock that Veeco has authority to issue from 60,000,000 shares to 175,000,000 shares. The purpose of the amendment is to provide Veeco with additional shares of Veeco common stock that may be used in connection with the merger and future acquisitions, for stock

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splits and stock dividends and for other corporate purposes, including the raising of additional capital, at times when the board of directors of Veeco, in its discretion, deems it advantageous to do so.

Assuming the approval and effectiveness of the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation and the completion of the merger, it is anticipated that Veeco will have approximately 79,000,000 authorized and unissued shares of Veeco common stock after the merger (after taking into account the number of issued and outstanding shares of Veeco common stock, the number of shares reserved for issuance by Veeco upon the exercise of Veeco's stock options and warrants, shares reserved for issuance under Veeco's employee stock purchase plan, shares reserved for issuance upon conversion of Veeco's outstanding convertible debt securities, shares to be issued to FEI shareholders in the merger, shares issuable upon the exercise of FEI options and upon conversion of the FEI notes assumed by Veeco in the merger, shares reserved for issuance under FEI's employee stock purchase plan assumed in the merger and shares that may become issuable to PBE under the investor agreement), which Veeco's board of directors would be able to authorize for issuance for the foregoing purposes, at any time, without obtaining further authorization from the holders of Veeco common stock, unless such authorization is required by applicable law, regulation or the rules of any stock exchange on which shares of Veeco's common stock may then be listed. Except as described above, no specific use of the additional shares of Veeco common stock is presently contemplated, although Veeco has considered additional acquisitions from time to time and reserves the right to use any additional authorized shares in the discretion of Veeco's board of directors. Holders of shares of Veeco common stock have no preemptive rights in connection with the issuance of additional shares of Veeco common stock. **A vote in favor of this proposal to amend Veeco's Amended and Restated Certificate of Incorporation will not be deemed to be a vote to approve the issuance of Veeco shares in the merger or the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation relating to the change of the name of Veeco Instruments Inc. to Veeco FEI Inc.**

The issuance of additional shares of Veeco common stock may dilute the present equity ownership position of Veeco stockholders. The issuance of additional shares of Veeco common stock may, among other things, have a dilutive effect on Veeco's earnings per share and on the equity and voting power of existing Veeco stockholders and may adversely affect the market price of the Veeco common stock.

The availability for issuance of additional shares of Veeco common stock could enable Veeco's board of directors to render more difficult or discourage an attempt to obtain control of Veeco. The additional shares of Veeco common stock also could be utilized to render more difficult a merger or similar transaction, even if it appears to be desirable to a majority of the Veeco stockholders. Veeco is not aware of any pending or threatened efforts to obtain control of Veeco.

If Veeco's stockholders do not approve the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation, Veeco would not have enough authorized shares to cover the shares to be issued to FEI shareholders in the merger and to be reserved for issuance upon the exercise of FEI stock options and conversion of the FEI notes to be assumed by Veeco in the merger. In that event, Veeco could be deemed to be in violation of contractual provisions in the merger agreement which, if deemed material, could give rise to FEI's right to terminate the merger agreement. In the case of such a termination by FEI, Veeco could be required to pay FEI's fees and expenses incurred in connection with the merger agreement and the merger. In addition, Veeco would not have such additional shares of Veeco common stock available for use in connection with the future acquisitions, for stock splits and stock dividends, and for other corporate purposes, including the raising of additional capital.

The full text of the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation is set forth in Appendix F-1 hereto and the description of the proposed amendment herein is qualified in its entirety by reference to such Appendix F-1.

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The affirmative vote of the holders of a majority of the outstanding shares of Veeco common stock entitled to vote thereon will be required to amend Veeco's Amended and Restated Certificate of Incorporation to increase the number of authorized shares of Veeco common stock.

The board of directors of Veeco believes that approval of this amendment to Veeco's Amended and Restated Certificate of Incorporation is in the best interests of Veeco and Veeco's stockholders and determined that this amendment is advisable. The board of directors of Veeco unanimously recommends a vote "FOR" approval of the amendment to increase the authorized number of shares of Veeco common stock as described above at Veeco's special meeting. In the event that this proposed amendment and the proposed amendment to change the name of Veeco to Veeco FEI are not approved by Veeco's stockholders at the Veeco special meeting, the Amended and Restated Certificate of Incorporation in effect as of the date hereof will remain in full force and effect.

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**AMENDMENT TO VEECO'S AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION TO CHANGE THE
NAME OF VEECO INSTRUMENTS INC. TO VEECO FEI INC.**

At the Veeco special meeting, the Veeco stockholders will be asked to consider and vote upon a proposal, unanimously recommended and determined to be advisable by Veeco's board of directors, to amend Article 1 of Veeco's Amended and Restated Certificate of Incorporation, to change the name of Veeco Instruments Inc. to Veeco FEI Inc. Veeco has agreed and is obligated to change its corporate name under the terms of the merger agreement.

Assuming the approval of the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation and the completion of the merger, it is anticipated that Veeco will file the amendment immediately after the closing of the merger. **A vote in favor of this proposal to amend Veeco's Amended and Restated Certificate of Incorporation will not be deemed to be a vote to approve the issuance of shares in the merger or the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation relating to the increase in the authorized shares of Veeco common stock.**

If Veeco's stockholders do not approve the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation, Veeco could be deemed to be in violation of contractual provisions in the merger agreement which, if deemed material, could give rise to FEI's right to obtain damages under the merger agreement.

The full text of the proposed amendment to Veeco's Amended and Restated Certificate of Incorporation is set forth in Appendix F-2 hereto and the description of the proposed amendment herein is qualified in its entirety by reference to such Appendix F-2.

The affirmative vote of the holders of a majority of the outstanding shares of Veeco common stock entitled to vote thereon will be required to amend Veeco's Amended and Restated Certificate of Incorporation to change the name of Veeco Instruments Inc. to Veeco FEI Inc.

The board of directors of Veeco believes that approval of this amendment to Veeco's Amended and Restated Certificate of Incorporation is in the best interests of Veeco and Veeco's stockholders and determined that this amendment is advisable. The board of directors of Veeco unanimously recommends a vote "FOR" approval of the amendment to change the name of Veeco Instruments Inc. to Veeco FEI Inc. as described above at Veeco's special meeting. In the event that this proposed amendment and the proposed amendment to increase the number of authorized shares of Veeco common stock are not approved by Veeco's stockholders at the Veeco special meeting, the Amended and Restated Certificate of Incorporation in effect as of the date hereof will remain in full force and effect.

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UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL STATEMENTS

The unaudited pro forma consolidated financial statements are based upon the historical consolidated financial statements and notes thereto (as applicable) of Veeco and FEI, which are incorporated by reference herein. The unaudited consolidated balance sheet gives pro forma effect to the merger as if it had been consummated on March 31, 2002 and combines Veeco's March 31, 2002 unaudited consolidated balance sheet with FEI's March 31, 2002 unaudited consolidated balance sheet. The unaudited pro forma consolidated statements of operations give pro forma effect to the merger as if it had been consummated on January 1, 2001 and combine Veeco's consolidated statement of operations for the year ended December 31, 2001 with FEI's consolidated statement of operations for the year ended December 31, 2001 and Veeco's unaudited consolidated statements of operations for the three months ended March 31, 2001 and 2002, respectively, with FEI's unaudited consolidated statements of operations for the thirteen weeks ended April 1, 2001 and March 31, 2002, respectively. The pro forma adjustments are subject to change pending a final analysis of fair values of the assets acquired and liabilities assumed. The impact of these changes could be material.

In addition, on September 17, 2001, a wholly-owned subsidiary of Veeco merged with and into Applied Epi, Inc. of St. Paul, Minnesota. As a result of that merger, Applied Epi became a wholly-owned subsidiary of Veeco. The unaudited pro forma consolidated statements of operations for the three months ended March 31, 2001 and for the year ended December 31, 2001 give effect to the acquisition of Applied Epi by Veeco as if it occurred on January 1, 2001.

The unaudited pro forma consolidated financial statements are based upon the estimates and assumptions set forth in the notes to the unaudited pro forma consolidated financial statements. The pro forma adjustments (including estimates and assumptions) made in connection with the preparation of the pro forma information are preliminary and have been made solely for purposes of preparing such pro forma information for illustrative purposes necessary to comply with the disclosure requirements of the SEC. The unaudited pro forma consolidated financial statements do not purport to be indicative of the results of operations for future periods or the consolidated financial position or results that actually would have been realized had Veeco and FEI been a single entity during these periods. The unaudited pro forma consolidated financial statements do not give effect to any synergies, cost savings or integration costs that may result from the integration of Veeco's and FEI's businesses. Costs associated with the Veeco FEI transaction related to restructuring and integration have not yet been determined. In addition, FEI's operating costs have increased and may further increase due to the termination (and expected termination) of some of the tangible and intangible benefits and arrangements provided to FEI by Philips. Certain of these benefits and arrangements terminated prior to March 31, 2002 and a portion of these increased costs resulting therefrom have already been incurred by FEI. FEI has also received payments described herein from Philips which have offset certain of these increased costs and have been recorded by FEI as a reduction in costs and operating expenses. The unaudited pro forma consolidated financial statements exclude the effects of a portion of the additional operating costs which may be incurred in connection with the termination of certain arrangements between FEI and Philips. In addition, the unaudited pro forma financial statements exclude the effect of a portion of the increased additional pension costs which will be incurred in connection with the new collective bargaining agreements, which took effect September 1, 2001. For more information concerning these additional costs, see the section titled "Risk Factors - The combined company will be subject to increased operational costs and other risks because PBE no longer owns a majority of FEI's common stock."

These unaudited pro forma consolidated financial statements should be read in conjunction with the historical consolidated financial statements and the related notes thereto of Veeco and FEI, which are incorporated by reference herein.

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UNAUDITED PRO FORMA CONSOLIDATED BALANCE SHEET**AT MARCH 31, 2002****(Dollars in thousands)**

	Historical		Pro Forma	
	Veeco	FEI	Adjustments	Combined
Assets				
Current assets:				
Cash and cash equivalents	\$ 219,108	\$ 169,760	\$	\$ 388,868
Short-term investments		87,252		87,252

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	Historical		Pro Forma	
Accounts receivable, net	69,815	94,553	18,736 (a)	183,104
Inventories	100,247	79,673	17,886 (b)	197,806
Prepaid expenses and other current assets	14,637	9,974		24,611
Deferred income taxes	49,549	16,004		65,553
Total current assets	453,356	457,216	36,622	947,194
Property, plant and equipment at cost, net	76,699	34,483		111,182
Excess of cost over net assets acquired, net	125,585	32,499	442,368 (c)	600,452
Long-term investments	34,912	21,484		56,396
Other assets, net	63,054	64,208	169,496 (d)	296,758
Total assets	\$ 753,606	\$ 609,890	\$ 648,486	\$ 2,011,982
Liabilities and stockholders' equity				
Current liabilities:				
Accounts payable	\$ 19,809	\$ 27,468	\$	\$ 47,277
Accrued expenses	49,163	26,352	20,000 (e)	95,515
Deferred revenue		30,310		30,310
Deferred gross profit	9,265		9,368 (a)	18,633
Income taxes payable	4,417	18,956		23,373
Other current liabilities	3,458	21,981		25,439
Total current liabilities	86,112	125,067	29,368	240,547
Deferred income taxes	10,155	4,106	80,211 (f)	94,472
Long-term debt	235,156	175,000		410,156
Other liabilities	1,777	2,756		4,533
Stockholders' equity:				
Common stock	290	318,853	(318,414)(g)	729
Additional paid-in capital	359,371		883,784 (g)	1,243,155
Retained earnings (deficit)	64,986	(4,441)	(31,024)(g)	29,521
Other comprehensive loss	(4,241)	(10,335)	10,335 (g)	(4,241)
Unamortized deferred compensation			(5,774)(g)	(5,774)
Other components of stockholders' equity		(1,116)		(1,116)
Total stockholders' equity	420,406	302,961	538,907	1,262,274
Total liabilities and stockholders' equity	\$ 753,606	\$ 609,890	\$ 648,486	\$ 2,011,982

See accompanying notes to unaudited pro forma consolidated financial statements.

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UNAUDITED PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS
FOR THE YEAR ENDED DECEMBER 31, 2001
(In thousands, except per share data)

	Historical Veeco(1)	Historical Applied Epi	Applied Epi Pro Forma Adjustments	Veeco Pre-FEI Pro Forma Results	Historical FEI	Pro Forma	
						Adjustments	Combined
Net sales	\$ 431,499	\$ 50,952	\$	\$ 482,451	\$ 376,004	\$	\$ 858,455

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			Veeco Pre-FEI Pro Forma Results		Pro Forma		
Cost of sales	249,846	26,524		193,612			469,982
Gross profit	181,653	24,428		206,081	182,392		388,473
Costs and expenses:							
Research and development expense	58,735	4,531		63,266	41,503		104,769
Selling, general and administrative expense	80,468	7,072		87,540	71,620		159,160
Amortization expense	4,471	180	11,433 (h)	16,084	6,757	21,667 (k)	44,508
Other expense (income), net	2,336			2,336	(212)		2,124
Reorganization expense	3,046			3,046			3,046
Asset impairment charge	3,418			3,418	3,718		7,136
Write-off of purchased in process technology	1,200			1,200	3,438		4,638
Deferred compensation expense						3,849 (l)	3,849
Operating income	27,979	12,645	(11,433)	29,191	55,568	(25,516)	59,243
Interest (income) expense net	(637)	924	1,308 (i)	1,595	568		2,163
Income before income taxes	28,616	11,721	(12,741)	27,596	55,000	(25,516)	57,080
Income tax provision (benefit)	5,780		(357)(j)	5,423	22,494	(8,931)(m)	18,986
Income from continuing operations	\$ 22,836	\$ 11,721	\$ (12,384)	\$ 22,173	\$ 32,506	\$ (16,585)	\$ 38,094
Earnings per common share:							
Income per common share from continuing operations	\$ 0.88			\$ 0.74	\$ 1.06		\$ 0.52
Diluted income per common share from continuing operations	\$ 0.87			\$ 0.73	\$ 1.02		\$ 0.50
Weighted average shares outstanding	25,938			29,821	30,563		73,715
Diluted weighted average shares outstanding	26,275			30,465	31,986		76,287

See accompanying notes to unaudited pro forma consolidated financial statements.

- (1) Historical Veeco data is derived from Veeco's year ended December 31, 2001 operating results, excluding the operating results of Applied Epi, which was merged with and into Veeco on September 17, 2001.

**UNAUDITED PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS
FOR THE THREE MONTHS ENDED MARCH 31, 2001
(In thousands, except per share data)**

	Historical		Applied Epi	Veeco		Pro Forma	
	Veeco	Applied Epi	Pro Forma Adjustments	Pre-FEI Pro Forma Results	Historical FEI	Adjustments	Combined
Net sales	\$ 125,386	\$ 8,479		\$ 133,865	\$ 93,515		\$ 227,380
Cost of sales	66,696	4,771		71,467	48,572		120,039

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				Veeco Pre- FEI Pro Forma Results		Pro Forma	
Gross profit	58,690	3,708		62,498	44,943	107,541	
Costs and expenses:							
Research and development expense	15,107	1,819		16,926	9,297	26,223	
Selling, general and administrative expense	21,134	1,762		22,896	17,224	40,120	
Amortization expense	1,436	32	3,763 (h)	5,231	1,538	5,568 (k)	12,337
Other expense, net	1,406	120		1,526	154	1,680	
Deferred compensation expense						962 (l)	962
Operating income (loss)	19,607	(25)	(3,763)	15,819	16,730	(6,530)	26,019
Interest (income) expense, net	(767)	254	327 (i)	(186)	41	(145)	
Income (loss) before income taxes	20,374	(279)	(4,090)	16,005	16,689	(6,530)	26,164
Income tax provision (benefit)	7,158		(1,529)(j)	5,629	6,466	(2,286)(m)	9,809
Income (loss) from continuing operations	\$ 13,216	\$ (279)	\$ (2,561)	\$ 10,376	\$ 10,223	\$ (4,244)	\$ 16,355
Earnings per common share:							
Income per common share from continuing operations	\$ 0.54			\$ 0.36	\$ 0.36		\$ 0.23
Diluted income per common share from continuing operations	\$ 0.52			\$ 0.35	\$ 0.34		\$ 0.22
Weighted average shares outstanding	24,678			28,561	28,686		72,455
Diluted weighted average shares outstanding	25,230			29,420	29,976		75,062

See accompanying notes to unaudited pro forma consolidated financial statements.

**UNAUDITED PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS
FOR THE THREE MONTHS ENDED MARCH 31, 2002
(In thousands, except per share data)**

	Historical		Pro Forma	
	Veeco	FEI	Adjustments	Combined
Net sales	\$ 80,149	\$ 84,498		\$ 164,647
Cost of sales	46,414	44,652		91,066
Gross profit	33,735	39,846		73,581
Costs and expenses:				

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	Historical		Pro Forma	
Research and development expense	13,329	10,739		24,068
Selling, general and administrative expense	19,037	17,335		36,372
Amortization expense	3,747	1,204	5,902 (k)	10,853
Other expense, net	49	354		403
Reorganization expense	837			837
Deferred compensation expense			962 (l)	962
Operating (loss) income	(3,264)	10,214	(6,864)	86
Interest expense, net	1,486	880		2,366
(Loss) income before income taxes	(4,750)	9,334	(6,864)	(2,280)
Income tax (benefit) provision	(1,598)	3,407	(2,402)(m)	(593)
(Loss) income from continuing operations	\$ (3,152)	\$ 5,927	\$ (4,462)	\$ (1,687)
(Loss) earnings per common share:				
(Loss) income per common share from continuing operations	\$ (0.11)	\$ 0.18		\$ (0.02)
Diluted (loss) income per common share from continuing operations	\$ (0.11)	\$ 0.18		\$ (0.02)
Weighted average shares outstanding	29,021	32,126		72,915
Diluted weighted average shares outstanding	29,021	33,477		72,915

See accompanying notes to unaudited pro forma consolidated financial statements.

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NOTES TO UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL STATEMENTS

Note 1 Pro forma Balance Sheet Adjustments

On July 11, 2002, Veeco, Venice Acquisition Corp., a wholly-owned subsidiary of Veeco, and FEI entered into a merger agreement providing for the merger of Venice Acquisition Corp., with and into FEI Company. Upon completion of the merger, FEI will become a wholly-owned subsidiary of Veeco. The acquisition will be accounted for as a purchase. Under the merger agreement, FEI shareholders will receive an aggregate of approximately 44.0 million shares of Veeco common stock (excluding Veeco shares issuable upon the exercise or conversion of FEI options or other rights or the FEI convertible notes). In connection with the merger, Veeco will incur acquisition costs and exchange and assume options of FEI for options to purchase approximately 4.2 million shares of Veeco's common stock and approximately 0.5 million shares of Veeco common stock issuable to PBE in connection with the investor agreement. The assumed options and shares issuable to PBE will be recorded at fair market value. The merger consideration is computed as follows:

Fair market value of shares issued	\$ 840,123
Fair market of stock options/warrants assumed	44,100
Transaction costs	20,000
Total purchase price	\$ 904,223

The fair value of the net assets acquired were estimated as follows for the purpose of preparing the pro forma balance sheet:

Tangible assets	\$ 591,428
In-process technology	35,465
Goodwill	474,867
Amortizable intangible assets	198,971

Total assets	1,300,731
Liabilities assumed	(396,508)
<hr/>	
Total purchase price	\$ 904,223
<hr/>	

The following notes explain the pro forma adjustments. The pro forma information excludes the effect of the potential issuance of 4,788,470 shares of Veeco common stock, in the aggregate, upon the conversion of FEI's \$175 million principal amount of 5.5% convertible subordinated notes due August 15, 2008, which will be assumed by Veeco at the time of the merger.

- (a) Adjustment to reflect FEI's deferred gross profit and related accounts receivable of \$18.7 million under SAB 101 to conform with Veeco's presentation. Additional pro forma adjustment to reduce FEI's deferred gross profit by \$9.4 million to its estimated fair value as required by purchase accounting.
- (b) Adjustment to record a \$17.9 million estimated step-up of inventory to its fair value.
- (c) Adjustment to record \$474.9 million of estimated goodwill acquired in connection with Veeco's purchase of FEI, offset by the elimination of FEI's goodwill of \$32.5 million.
- (d) Adjustment to record an estimated \$234.4 million of other intangible assets acquired through the acquisition of FEI. This amount has been reduced by an estimated \$35.5 million of purchased in-process technology, which will be charged to the post merger statement of operations, and the elimination of FEI's amortizable intangible assets of \$29.5 million at March 31, 2002.

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- (e) Adjustment to record estimated merger transaction fees and expenses of \$20.0 million associated with the Veeco FEI merger.
- (f) Adjustment to record the estimated deferred tax liability of \$88.9 million, due to the step-up in basis of assets associated with the Veeco FEI merger, offset by the elimination of an \$8.7 million deferred tax liability in connection with the elimination of FEI's amortizable intangible assets of \$29.5 million at March 31, 2002.
- (g) Adjustment to record the elimination of the equity of FEI including \$318.9 million of common stock, \$4.4 million of retained deficit and \$10.3 million accumulated other comprehensive loss. In addition, this adjustment is to record the estimated fair market value of the shares and options to be issued in the merger with FEI aggregating \$878.4 million.

Note 2 Pro forma Statements of Operations Adjustments

Details of the pro forma adjustments relating to the Veeco FEI merger and the Veeco/Applied Epi merger are set forth below:

- (h) Adjustment to record the amortization expense related to the amortizable intangible assets acquired in the Applied Epi merger.
- (i) Adjustment to record the reduction of interest income, due to the use of \$32.7 million of cash related to the purchase of Applied Epi.
- (j)

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Adjustment to record an income tax provision (benefit) for Applied Epi and pro forma adjustments using a 35% tax rate. Prior to the Applied Epi merger, Applied Epi was an S Corporation and was not taxed at the corporate level.

(k)

Adjustment to record the amortization expense related to the estimated \$199.0 million of amortizable intangible assets acquired. The average life of the amortizable intangible assets is estimated to be approximately seven years. The fair value of the amortizable intangible assets is preliminary and cannot be finalized prior to completion of the merger. A final determination of these fair values will be based upon an independent appraisal. The final valuation will be based on the actual net intangible assets of FEI that exist as of the date of completion of the merger. If the final valuation of amortizable intangible assets is different by \$10.0 million from the preliminary estimate, the annual effect on earnings would be approximately \$0.9 million for each \$10.0 million change.

(l)

Adjustment to record the amortization expense related to deferred compensation, which is being amortized over one and one half years.

(m)

Adjustment to tax effect each of the above pro forma adjustments, utilizing a 35% tax rate.

The pro forma adjustments in the statements of operations do not give effect to the impact on gross profit of the adjustment to increase inventory by \$17.9 million to its estimated fair value and the impact on sales and gross profit of the adjustment to reduce deferred gross profit by approximately \$9.4 million to its estimated fair value. Such adjustments, which are reflected in the March 31, 2002 balance sheet, are required under the purchase method of accounting.

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COMPARISON OF RIGHTS OF VEECO STOCKHOLDERS AND RIGHTS OF FEI SHAREHOLDERS

This section describes some of the differences as well as some of the similarities between the rights of holders of Veeco common stock and those of holders of FEI common stock. While we believe that the description covers the material differences between the two, this summary may not contain all of the information that is important to you, including information set forth in the certificate of incorporation of Veeco, articles of incorporation of FEI and bylaws of each company. You should carefully read this entire joint proxy statement/prospectus and the other documents we refer to for a more complete understanding of the differences between the rights of holders of Veeco common stock and those of holders of FEI common stock. You may obtain the information incorporated by reference without charge by following the instructions in the section titled "Where You Can Find More Information" beginning on page 126.

When Veeco and FEI complete the merger, FEI shareholders will become Veeco stockholders. FEI shareholders currently are governed by the Oregon Business Corporation Act and FEI's Amended and Restated Articles of Incorporation and Restated Bylaws. After the merger, the rights of FEI shareholders who receive common stock of Veeco will be governed by the Delaware General Corporation Law and Veeco's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws as in effect at the closing of the merger.

Description of Capital Stock

Veeco. Veeco's amended and restated certificate of incorporation authorizes Veeco to issue up to 60,500,000 shares of capital stock, consisting of two classes: 60,000,000 shares of common stock, \$0.01 par value per share, and 500,000 shares of preferred stock, \$0.01 par value per share, 30,000 shares of which have been designated as series A junior participating preferred stock in connection with the Veeco stockholder rights plan. With respect to Veeco's undesignated preferred stock, Veeco's board of directors is authorized, without stockholder approval, to designate one or more series of preferred stock and to determine the number of shares included in any series and the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions thereof. On June 30, 2002, there were 29,134,679 shares of Veeco common stock and no shares of Veeco preferred stock issued and outstanding.

FEI. FEI's articles of incorporation authorize FEI to issue up to 45,500,000 shares of capital stock, consisting of two classes: 45,000,000 shares of common stock, no par value, and 500,000 shares of preferred stock, no par value per share. With respect to FEI's undesignated preferred stock, FEI's board of directors is authorized to designate one or more series of preferred stock and to determine the number of shares included in any series and the designation, preferences, limitations and relative rights of the shares of any series. The FEI board of directors is also authorized to increase or decrease the number of shares of any series of preferred stock subsequent to the issuance of shares of that series, subject to certain limitations. On June 30, 2002, there were 32,393,766 shares of FEI common stock and no shares of FEI preferred stock issued

and outstanding.

Voting Rights

Veeco. Veeco's bylaws provide that each Veeco stockholder has the right to one vote for each share of Veeco common stock registered in the stockholder's name on each matter submitted to a stockholder vote. Generally, other than the election of directors, who are elected by a plurality vote, and except as otherwise provided by the Delaware General Corporation Law, all matters to be voted on by Veeco stockholders must be approved by a majority of the votes cast. The Delaware General Corporation Law provides that a certificate of incorporation may allow cumulative voting for election of directors of a corporation or elections held under specified circumstances. Veeco's Amended and Restated Certificate of Incorporation does not provide for cumulative voting.

FEI. FEI's articles of incorporation provide that each FEI shareholder has the right to one vote for each share of FEI common stock registered in the shareholder's name on each matter submitted to

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a shareholder vote. The FEI bylaws specify that, other than the election of directors and except as otherwise provided by the FEI articles of incorporation or by the Oregon Business Corporation Act, all matters to be voted on by FEI shareholders will be approved if the votes cast by shares entitled to vote favoring the action exceed the votes cast opposing the action. Unless otherwise provided in the FEI articles of incorporation, directors are elected by a plurality of the votes cast by shares entitled to vote in the election at a meeting at which a quorum is present. The Oregon Business Corporation Act provides that articles of incorporation may allow cumulative voting for elections of directors of a corporation. FEI's articles of incorporation do not provide for cumulative voting.

Stockholder Actions Generally

Veeco. Veeco's bylaws provide that, at each meeting of stockholders, the presence in person or by proxy of the holders of 50% of the shares entitled to vote shall constitute a quorum for the transaction of any business.

FEI. FEI's bylaws provide that, at each meeting of shareholders, the presence in person or by proxy of the holders of a majority of the shares entitled to vote shall constitute a quorum for the transaction of any business.

Special Meetings of Stockholders

Veeco. Under Delaware law, a special meeting of stockholders may be called by the board of directors or any other person as may be provided in the certificate of incorporation or bylaws. Veeco's bylaws provide that special meetings of the Veeco stockholders may be called at any time by Veeco's board of directors or by the President or Chief Executive Officer of Veeco and shall be called by the President, Chief Executive Officer or Secretary of Veeco upon the written request of a majority of Veeco's board of directors then in office or of 50% of the outstanding Veeco shares entitled to vote. Only business related to the purposes set forth in the notice of the meeting may be transacted at a special meeting.

FEI. Oregon law provides that a special meeting of shareholders may be called by the holders of at least ten percent (10%) of all the votes entitled to be cast on any issue proposed to be considered at the proposed special meeting, or by a corporation's board of directors, or by such other persons as are authorized under the corporation's articles of incorporation or bylaws. FEI's bylaws provide that special meetings of FEI shareholders may be called by the President or by the board of directors of FEI and shall be called by the President of FEI at the request of not less than one-tenth of all outstanding shares of FEI entitled to vote at the meeting.

Action by Written Consent in Lieu of a Stockholder Meeting

Veeco. Under Delaware law, unless otherwise provided in the certificate of incorporation, any action which may be taken at a meeting of stockholders may be taken without a meeting and without prior notice if a consent in writing is signed by the holders of outstanding shares having at least the minimum number of votes that would be necessary to take such action at a meeting at which all shares entitled to vote thereon were present and voted. Veeco's bylaws provide that no action required or permitted to be taken at any meeting of stockholders may be taken by written consent without a meeting.

FEI. Under Oregon law, any action required or permitted to be taken at a meeting of the shareholders may be taken without a meeting if the action is taken by all shareholders entitled to vote on the action. The action must be evidenced by one or more written consents describing the action taken and signed by all the shareholders entitled to vote on the action. FEI's bylaws provide that action required or permitted by law to be taken at a shareholders' meeting may be taken without a meeting if the action is taken by all the shareholders entitled to vote on the action and

evidenced by one or more written consents signed by all the shareholders entitled to vote on the action.

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Appraisal/Dissenters' Rights

Veeco. Under Delaware law, a stockholder of a corporation participating in certain major corporate transactions may, under varying circumstances, be entitled to dissenters' rights or to appraisal rights pursuant to which such stockholder may receive cash in the amount of the fair market value of the shares held by such stockholder (as determined by a court or by agreement of the corporation and the stockholder) in lieu of the consideration such stockholder would otherwise receive in the transaction. Under Delaware law, such fair market value is determined exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, and such appraisal rights are not available in the following situations:

With respect to the sale, lease or exchange of all or substantially all of the assets of a corporation;

With respect to a merger or consolidation by a corporation the shares of which are either listed on a national securities exchange (including The Nasdaq National Market) or are held of record by more than 2,000 stockholders if such stockholders receive only shares of the surviving corporation or shares of any other corporation that are either listed on a national securities exchange (including The Nasdaq National Market) or held of record by more than 2,000 holders, plus cash in lieu of fractional shares of such corporation; or

To stockholders of a corporation surviving a merger if no vote of the stockholders of the surviving corporation is required to approve the merger under Delaware law.

FEI. Under Oregon law, a shareholder is entitled to dissent from, and obtain payment of the fair value of the shareholder's shares in the event of, any of the following corporate acts: (1) consummation of a plan of merger to which the corporation is a party if shareholder approval is required and the shareholder is entitled to vote on the merger or if the corporation is a subsidiary that is merged with its parent; (2) consummation of a plan of share exchange to which the corporation is a party as the corporation whose shares will be acquired, if the shareholder is entitled to vote on the plan; (3) consummation of a sale or exchange of all or substantially all of the property of the corporation other than in the usual and regular course of business if the shareholder is entitled to vote on the sale or exchange, unless the sale is for cash pursuant to which all or substantially all of the net proceeds will be distributed to shareholders within one year; (4) an amendment of the articles of incorporation that materially and adversely affects rights in respect of a dissenter's shares because it (A) alters or abolishes a preemptive right of the holder of the shares to acquire shares or other securities or (B) reduces the number of shares owned by the shareholder to a fraction of a share if the fractional share so created is to be acquired for cash under Oregon law; or (5) any corporate action taken pursuant to a shareholder vote to the extent the articles of incorporation, bylaws or a resolution of the board of directors provides that voting or nonvoting shareholders are entitled to dissent and obtain payment for their shares. Unless the articles of incorporation provide otherwise, dissenters' rights do not apply to the holders of shares of any class or series if the shares of the class or series were registered on a national securities exchange or quoted on The Nasdaq National Market on the record date for the meeting of shareholders at which the corporate action giving rise to dissenters' rights is to be approved.

Record Date for Determining Stockholders

Veeco. Veeco's bylaws provide that Veeco's board of directors may fix a record date that is not more than 60 nor less than 10 days before the date of a Veeco stockholders meeting or more than 60 days before any other action.

FEI. FEI's bylaws provide that FEI's board of directors may fix, in advance, a record date that is not more than 70 nor less than 10 days before the date of an FEI shareholders meeting. A determination of shareholders entitled to notice of or to vote at a shareholders meeting is effective for any adjournment of the meeting unless FEI's board of directors fixes a new record date, which it must do if the meeting is adjourned to a date more than 120 days after the date fixed for the original

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meeting. If a court orders a meeting adjourned to a date more than 120 days after the date fixed for the original meeting, it may provide that the original record date continue in effect or it may fix a new record date.

Notice of Meetings

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Veeco. Veeco's bylaws provide that written notice of each meeting of Veeco's stockholders shall be given to each Veeco stockholder entitled to vote at the meeting, except that:

It shall not be necessary to give notice to any Veeco stockholder who submits a signed waiver of notice before or after the meeting; and

No notice of an adjourned meeting need be given if the time and place are announced at the meeting at which the adjournment is taken except that, if adjournment is for more than thirty days or if, after the adjournment, a new record date is fixed for the meeting.

Each notice of a meeting shall be given, personally or by mail, not less than 10 nor more than 60 days before the meeting and shall state the time and place of the meeting, and unless it is the annual meeting, shall state at whose direction or request the meeting is called and the purposes for which it is called.

FEI. FEI's bylaws provide for notice provisions similar to those of Veeco's bylaws with respect to meetings of FEI shareholders, although its bylaws specify that no notice of an adjourned meeting need be given unless the FEI board of directors fixes a new record date more than 120 days after the date fixed for the original meeting.

Annual Meeting

Veeco. Veeco's bylaws specify that the annual meeting of Veeco's stockholders shall be held at a place and time determined by Veeco's board of directors. At the Veeco annual meeting, Veeco's stockholders elect directors and transact any other business that is properly brought before the meeting and described in the notice of meeting.

FEI. FEI's bylaws provide that the annual meeting of FEI's shareholders shall be held on the third Wednesday in May in each year at 10:00 a.m., unless a different date and time are fixed by the FEI board of directors and stated in the notice of the meeting.

Number, Class and Term of Directors

Veeco. Veeco's bylaws provide that Veeco's board of directors be divided into three classes with staggered three-year terms. As a result, only one of the three classes of Veeco's board of directors will be elected each year. Veeco's bylaws provide that the exact number of the directors on the board of directors shall be not less than three, nor more than fifteen, the exact number of which shall be determined from time to time by resolution of Veeco's board of directors. Directors shall be elected at each annual meeting of Veeco's stockholders and shall hold office until the election and qualification of his or her successor or until his or her earlier resignation or removal by vote of Veeco's stockholders. As of August 9, 2002, Veeco's board of directors was comprised of nine directors.

Upon completion of the merger, the board of directors of Veeco FEI will be comprised of thirteen individuals, seven of whom will be nominated by Veeco, five of whom will be nominated by FEI and one of whom will be nominated by PBE pursuant to the terms of an investor agreement among Veeco, FEI and PBE.

FEI. FEI's bylaws provide that FEI's board of directors must be composed of between six and eleven directors, as fixed by the FEI board of directors or shareholders. As of August 9, 2002, the FEI board of directors had eight directors. The FEI board of directors is not classified into separate classes. The directors are elected each year at the annual meeting of shareholders.

Election of Directors

Veeco and FEI. The holders of Veeco and FEI common stock elect all members of their respective boards of directors. Veeco and FEI directors are elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

Resignation and Removal of Directors

Veeco. Veeco's bylaws provide that any Veeco director may resign at any time upon written notice to the Chief Executive Officer or Secretary of Veeco and be removed, with cause, by vote of Veeco's stockholders.

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FEI. FEI's bylaws provide that any director may be removed from the FEI board of directors at any meeting of the shareholders called for that purpose by a majority of the FEI common stock represented and entitled to vote at the meeting. Any director may resign by delivering written notice to the FEI board of directors, its chairperson or to FEI. Such resignation shall be effective:

On receipt;

Five days after its deposit in the United States mails; or

On the date shown on the return receipt, if sent by registered or certified mail, return receipt requested, and the receipt is signed by addressee, unless the notice specifies a later effective date.

Once delivered, a notice of resignation is irrevocable unless revocation is permitted by the FEI board of directors.

Board of Directors Vacancies

Veeco. Veeco's bylaws state that any vacancy on the Veeco board of directors, including any newly created Veeco directorship resulting from an increase in the number of Veeco directors, may be filled only by the vote of a majority of the remaining Veeco directors, though less than a quorum.

FEI. FEI's bylaws provide that vacancies on the FEI board of directors may be filled by the shareholders, the FEI board of directors or the vote of a majority of the remaining directors if the remaining directors constitute less than a quorum of the FEI board of directors or by a sole remaining director. A director so elected to fill a vacancy serves until the next annual meeting of shareholders and until the director's successor is elected and qualified.

Annual Meeting of the Board of Directors

Veeco. Veeco's bylaws provide that annual meetings of the Veeco board of directors, for the election of officers and consideration of other matters, shall be held either:

Without notice immediately after the annual meeting of Veeco stockholders and at the same place; or

At such time and place as the chairman of the board shall determine, with notice of the time and place of the meeting of the Veeco board of directors being given to each Veeco director by mailing it to him at his residence or usual place of business at least three days before the meeting, or by delivering or telephoning or telecopying it to him at least two days before the meeting.

FEI. FEI's bylaws state that the annual meeting of the FEI board of directors shall be held without notice other than FEI's bylaws, immediately after, and at the same place as, the annual meeting of shareholders.

Notice of Special Meetings of the Board of Directors

Veeco. Veeco's bylaws state that special meetings of Veeco's board of directors may be called by the Chief Executive Officer of Veeco or by a majority of the entire Veeco board of directors. Notice of the time and place of each special meeting of Veeco's board of directors shall be given to each Veeco

director by mailing it to him at his residence or usual place of business at least three days before the meeting, or by delivering or telephoning or telecopying it to him at least two days before the meeting. Notice of a special meeting of Veeco's board of directors shall also state the purpose or purposes for which the meeting is called.

FEI. FEI's bylaws state that special meetings of the board of directors of FEI may be called at the direction of the President of FEI or by a majority of FEI directors then in office. Notice of the date, time and place of any special meetings of the FEI board of directors shall be given in a manner reasonably likely to be received at least three days prior to the meeting by any means provided by law. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the FEI board of directors need be specified in the notice or waiver of notice of such meeting.

Board Action

Veeco. Veeco's bylaws provide that a majority of the entire board of directors shall constitute a quorum for the transaction of business at any meeting. Action of the board of directors shall be authorized by the vote of a majority of the directors present at the time of the vote if there is a quorum, unless otherwise provided in Veeco's bylaws or by applicable law. In the absence of a quorum, a majority of the directors present may adjourn any meeting from time to time until a quorum is present.

FEI. FEI's bylaws provide that a majority of the number of directors shall constitute a quorum for the transaction of business at any meeting of the FEI board of directors. The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the FEI board of directors, unless a different number is provided by law, or by FEI's articles of incorporation or bylaws.

Actions in Writing; Participation by Conference Telephone

Veeco and FEI. Both Veeco's and FEI's bylaws provide that:

Action by the board of directors and committees thereof may be taken without a meeting if all of the members of the board of directors or committee consent thereto in writing, and the writing is filed with the minutes of proceedings of the board of directors or the appropriate committee; and

Members of the board of directors or a committee thereof may participate in a meeting by means of a telephone conference or similar communications equipment by means of which all persons participating in the meeting can hear each other.

Action by Committees

Veeco. Veeco's bylaws create the following committees, with the following powers and duties:

Compensation Committee The Veeco compensation committee shall be comprised of three or more Veeco directors. The Veeco compensation committee shall fix the compensation of the Chief Executive Officer and such other executive officers as it shall determine, and determine and administer any stock option, stock appreciation or other incentive compensation programs of Veeco.

Audit Committee The Veeco audit committee shall be comprised of three or more Veeco directors who are not employees of Veeco. The Veeco audit committee shall have full corporate power and authority to act in respect of any matter which may develop or arise in connection with any audit or the maintenance of internal accounting controls or any other matter relating to Veeco's financial affairs. The Veeco audit committee shall review, at least once each fiscal year, the services performed and to be performed by Veeco's independent public accountants and the fees charged therefor, and, in connection therewith, consider the effect of any nonaudit services on the independence of such accountants. The Veeco audit committee shall also review with Veeco's independent public accountants and its internal audit department the general scope of their respective audit coverages, the procedure and internal accounting controls adopted by Veeco and any significant matters encountered by any of them.

Nominating Committee The Veeco nominating committee shall be comprised of three or more directors. The Veeco nominating committee shall provide to the Veeco board of directors its recommendations regarding individuals to be considered for election as directors of Veeco at meetings of the Veeco stockholders and shall have such other powers and duties as may be determined by the Veeco board of directors from time to time.

Veeco's bylaws also provide that the Veeco board of directors may designate one or more directors as alternate members of any Veeco committee, who may replace any absent or disqualified member. In the absence or disqualification of any member of a Veeco committee, the member or members present at a meeting of the committee and not disqualified, whether or not a quorum, may unanimously appoint another Veeco director to act at the meeting in place of the absent or disqualified member. All action of a Veeco committee shall be reported to the Veeco board of directors at its next meeting.

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FEI. Unless FEI's articles of incorporation provide otherwise, FEI's bylaws authorize the FEI board of directors to create one or more committees and appoint members of the FEI board of directors to serve on them. Each committee shall have two or more members, who serve at the direction of the FEI board of directors. A majority of all directors in office must approve the creation of a committee and the appointment of its members. The creation of a committee, the delegation of authority to it or action by a committee shall not alone constitute compliance by a director with standards of conduct prescribed by law. No member of any committee shall continue to be a member thereof after ceasing to be an FEI director. The FEI board of directors shall have the power at any time to increase or decrease the number of members of any committee, to fill vacancies thereon, to change any member thereof and to change the functions or terminate the existence thereof.

A committee shall not have the authority of the FEI board of directors in reference to:

Authorizing dividends;

Approving or proposing to shareholders actions that the law requires to be approved by shareholders;

Filling vacancies on the FEI board of directors or on any of its committees;

Amending FEI's articles of incorporation;

Adopting, amending or repealing FEI's bylaws;

Approving a plan of merger not requiring shareholder approval;

Authorizing or approving reacquisition of shares, except according to a formula or method prescribed by the FEI board of directors; or

Authorizing or approving the issuance or sale or contract for sale of shares, or determining the designation and relative rights, preferences and limitations of a class or series of shares, except where the FEI board of directors has authorized a committee or a senior executive officer of FEI to do so within limits specifically prescribed by the FEI board of directors.

FEI has the following standing committees with the following powers and duties:

Audit Committee The audit committee makes recommendations concerning the engagement of the independent public accountants, reviews with the independent public accountants the plans and results of the audit engagement, approves professional services provided by the independent public accountants, reviews the independence of the independent public accountants, considers the range of the audit and non-audit fees and reviews the adequacy and completeness of FEI's internal accounting controls and financial statements.

Compensation Committee The compensation committee determines compensation for FEI's executive officers and administers FEI's stock incentive plans and employee stock purchase plan.

Nominating Committee The nominating committee reviews qualifications and makes recommendations to the board concerning nominees to the board of directors and board membership. The nominating committee has not put in place a procedure for considering nominees recommended by security holders.

Amendment of Certificate of Incorporation and Articles of Incorporation

Veeco. Section 242 of the Delaware General Corporation Law authorizes a corporation to amend its certificate of incorporation in any way so long as the certificate of incorporation, as amended, would only contain provisions lawful and proper for insertion in an original certificate of incorporation. Section 242 of the Delaware General Corporation Law requires that, to amend a certificate of incorporation:

The Veeco board of directors must approve a resolution describing the proposed amendment and determine that the proposed amendment is advisable; and

A majority of the outstanding stock entitled to vote on the proposed amendment must approve the amendment at a special or annual meeting of the stockholders.

FEI. The FEI board of directors may make specified minor changes to FEI's articles of incorporation without shareholder action. In general, other amendments to FEI's articles of incorporation must be recommended to FEI shareholders by the FEI board of directors and approved by a majority of the votes entitled to be cast by any voting group with which the amendment would create dissenters' rights and a majority of the shares that have a right to vote on the amendment, unless a higher percentage is specified by the Oregon Business Corporation Act, FEI's articles of incorporation or the FEI board of directors.

Amendment of Bylaws

Veeco and FEI. The bylaws of both Veeco and FEI provide that FEI's and Veeco's respective boards of directors have the power to adopt, amend or repeal their respective bylaws. The stockholders of Veeco and the shareholders of FEI also have the power to adopt, amend or repeal their respective bylaws. The bylaws of Veeco FEI will require a vote of two-thirds of the entire board of directors to amend, alter or repeal the provisions of Veeco FEI's bylaws relating to the resignation and removal of, and the roles of, the President and Chief Executive Officer and Chairman.

Dividends and Repurchase of Shares

Veeco. Delaware law permits a corporation to declare and pay dividends out of surplus or, if there is no surplus, out of net profits for the fiscal year in which the dividend is declared and/or for the preceding fiscal year. If the amount of capital of the corporation following the declaration and payment of the dividend is less than the aggregate amount of the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets, the directors may not declare and pay out a dividend from the corporation's net profits. In addition, Delaware law generally provides that a corporation may redeem or repurchase its shares only if the capital of the corporation is not impaired and such redemption or repurchase would not impair the capital of the corporation.

FEI. Under Oregon law, the board of directors of a corporation may authorize and the corporation may make distributions (including dividends) to shareholders only if after giving effect to the distribution (1) the corporation would be able to pay its debts as they become due in the usual course of business and (2) the corporation's total assets would at least equal the sum of the total liabilities plus, unless the corporation's articles of incorporation permit otherwise, the amount that would be needed if the corporation were to be dissolved at the time of the distribution to satisfy the preferential rights upon dissolution of shareholders whose preferential rights are superior to those receiving the distribution.

Limitation of Director Liability

Veeco and FEI. The Veeco certificate of incorporation and the FEI bylaws limit the liability of Veeco's and FEI's respective directors to the fullest extent permitted by the Delaware General Corporation Law and Oregon Business Corporation Act, respectively.

Indemnification

Veeco. Veeco's Amended and Restated Certificate of Incorporation and bylaws provide that its directors, officers, employees and agents shall be indemnified to the fullest extent authorized by the Delaware General Corporation Law.

FEI. FEI's bylaws provide that FEI shall indemnify to the fullest extent not prohibited by law any current or former officer or director who is made, or threatened to be made, a party to an action, suit or proceeding, whether civil, criminal, administrative, investigative or otherwise (including an action, suit or proceeding by or in the right of FEI) by reason of the fact that the person is or was acting as a director, officer or agent of FEI or as a fiduciary within the meaning of the Employee Retirement Income Security Act of 1974 with respect to any employee benefit plan of FEI, or serves or served at the request of FEI as a director or officer, or as a fiduciary of an employee benefit plan, of another corporation, partnership, joint venture, trust or other enterprise. The indemnification shall not be deemed exclusive of any other rights to which such person may be entitled under any bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in the official capacity of the person indemnified and as to action in another capacity while holding such office.

Interested Director Transactions

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Veeco. The Veeco amended and restated certificate of incorporation does not specifically address interested director transactions. Under the Delaware General Corporation Law, certain contracts or transactions in which one or more of the directors of Veeco has an interest are void or voidable unless:

The stockholders of Veeco approve the contract or transaction after full disclosure of material facts;

The Veeco board of directors approves the transaction after full disclosure of material facts and the transaction is fair, and approved by a majority of the disinterested directors of Veeco, even though less than a quorum; or

The contract or transaction must have been fair to Veeco at the time it was authorized, approved or ratified, by Veeco's board of directors, a committee, or the stockholders.

FEI. The FEI articles of incorporation do not specifically address interested director transactions. Under the Oregon Business Corporation Act, a conflict of interest transaction is not voidable by FEI solely because of a director's interest in the transaction if:

The material facts of the transaction and the director's interest were disclosed to the FEI board of directors or a committee thereof and the transaction has been authorized, approved or ratified by FEI's board of directors or a committee thereof; or

The transaction was fair to FEI.

Interested Stockholder Transactions

Veeco and FEI. Veeco and FEI are subject to the provisions of the Delaware General Corporation Law and the Oregon Business Corporation Act, respectively, which both prohibit a corporation from engaging in a business combination with an interested stockholder for three years

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following the date the stockholder became an interested stockholder. The Delaware General Corporation Law specifically excepts such business combinations where:

Prior to the date the stockholder became an interested stockholder, the board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

Upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began; or

On or following the date the stockholder became an interested stockholder, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

A business combination is defined to include:

Any merger or consolidation involving the corporation and the interested stockholder;

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Any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

Subject to limited exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

Any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

The receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

Generally, an interested stockholder is a person who, together with its affiliates and associates, owns 15% or more of the corporation's voting stock or owned 15% of such voting stock within three years before the proposed business combination, or is affiliated with the corporation.

Although the Oregon business combination statute generally replicates Delaware's business combination statute, the Oregon statute omits a significant provision dealing with competitive bidding contests for corporate control. Section 203(b)(6) of the Delaware General Corporation Law generally relieves a bidder from the restrictions of the business combination statute if the board of directors has approved or not opposed a combination with a competing bidder. The basic policy behind Section 203(b)(6) is that once the board of directors has decided to sell the corporation or a majority of its assets or has approved, or not opposed, a tender or exchange offer for 50% or more of the corporation's outstanding stock, the stockholders of the corporation are benefited by the promotion of bidding contests. Section 203(b)(6) allows a bidder who announces a transaction subsequent to the public announcement of a management-approved transaction and prior to the completion or abandonment of the approved transaction to be free of the requirements of Section 203.

Oregon also has enacted a control share statute that is contained in the Oregon Business Corporation Act. The Oregon Control Share Act provides that "control shares" of a corporation acquired in a control share acquisition have no voting rights except as granted by the shareholders of the corporation. "Control shares" are shares which, when added to shares then owned or controlled by a shareholder, increase the shareholder's control of voting power above one of three thresholds:

More than one-fifth of the outstanding voting power of the corporation;

More than one-third of the outstanding voting power of the corporation; or

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More than one-half of the outstanding voting power of the corporation.

A majority of the votes cast by holders of shares entitled to vote, excluding shares voted or controlled by the acquiring person and officers and directors, must approve voting rights for shares acquired in a control share acquisition. No such approval, however, is required for gifts or other transactions not involving consideration, for a merger to which the corporation is a party, or other transactions described in the Oregon Control Share Act.

Submission for shareholder consideration of a resolution to grant voting rights to control shares must be preceded by the filing with the corporation of a statement by the acquiring person providing certain specified information. If the acquiring person requests a special meeting of shareholders when it delivers its statement and submits an undertaking to pay the corporation's expenses, the corporation shall call a special meeting to consider solely the voting rights to be accorded the voting shares acquired in the control share acquisition, not later than 10 days from the date of receipt of the acquiring person's statement. Unless the acquiring person agrees otherwise in writing, the special meeting of shareholders shall be held no sooner than 30 days and no later than 50 days after receipt by the corporation of the acquiring person's statement. If no request for a special meeting of shareholders is made in the acquiring person's statement, the board of directors shall present to the next annual or special meeting of shareholders occurring more than 60 days after the filing of the acquiring person's statement, the voting rights to be accorded the voting shares acquired in the control share acquisition.

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Unless otherwise provided in a corporation's articles of incorporation or bylaws, if control shares acquired in a control share acquisition are accorded full voting rights and the acquiring person has acquired a majority of all voting power of the corporation, the shareholders of the corporation, other than the acquiring person, have dissenters' rights and shall be entitled to obtain the fair value of the holder's shares. "Fair value" means a value not less than the highest price paid per share by the acquiring person in the control share acquisition.

Liquidation

Veeco and FEL. Under both the Delaware General Corporation Law and the Oregon Business Corporation Act, in the event of a liquidation, dissolution or winding up of a corporation, after payment of any amounts owed to creditors, subject to preferences of any outstanding preferred stock, the remaining assets of the corporation will be divided equally, on a share for share basis, among the holders of common stock of the corporation.

Rights Plan

Veeco. Veeco and American Stock Transfer and Trust Company, as rights agent, entered into a rights agreement, dated as of March 13, 2001. Pursuant to the rights agreement, on March 13, 2001 Veeco's board of directors declared a dividend distribution of one right for each outstanding share of Veeco common stock to stockholders of record at the close of business on March 30, 2001. Each right entitled the registered holder to purchase from Veeco a unit consisting of one ten-thousandth of a share of Series A Junior Participating Preferred Stock, par value \$0.01 per share, at a purchase price of \$200 per unit.

Subject to certain exceptions specified in the rights agreement, the rights are separate from the Veeco common stock and a distribution date will occur upon the earlier of:

10 days following a public announcement that a person or group of affiliated or associated persons has acquired beneficial ownership of 15% or more of the outstanding shares of Veeco's common stock; or

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10 business days following the commencement of a tender offer or exchange offer that would result in a person or group acquiring 15% or more of the outstanding shares of Veeco's common stock.

The rights are not exercisable until the distribution date and will expire on March 30, 2011, unless such date is extended or the rights are earlier redeemed or exchanged by Veeco.

If a person acquires 15% or more of the outstanding shares of Veeco's common stock, except pursuant to an offer for all outstanding shares of common stock that the independent directors determine to be fair and not inadequate to, and to otherwise be in the best interests of Veeco and its stockholders, after receiving advice from one or more investment banking firms, then each holder of a right will have the right to receive, upon exercise, common stock (or, in certain circumstances, cash, property or other securities of Veeco) having a value equal to two times the exercise price of the right. All rights that are, or (under certain circumstances specified in the rights agreement) were beneficially owned by the person who acquired 15% or more of the outstanding shares of Veeco common stock become null and void.

If, at any time following the date of public announcement that a person has acquired 15% or more of the outstanding shares of Veeco common stock:

Veeco engages in a merger or other business combination transaction in which Veeco is not the surviving corporation (other than in limited circumstances);

Veeco engages in a merger or other business combination transaction in which Veeco is the surviving corporation and the common stock of Veeco is changed or exchanged; or

50% or more of Veeco's assets, cash flow or earning power is sold or transferred,

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then each holder of a right (except rights which have previously been voided as set forth above) shall thereafter have the right to receive, upon exercise, common stock of the acquiring company having a value equal to two times the exercise price of the right.

At any time after a person acquires 15% or more of the outstanding shares of Veeco's common stock and prior to the acquisition by such person or group of fifty percent (50%) or more of the outstanding common stock, the Veeco board of directors may exchange the rights (other than rights owned by such person or group which have become void), in whole or in part, at an exchange ratio of one share of common stock, or one ten-thousandth of a share of preferred stock (or of a share of a class or series of Veeco's preferred stock having equivalent rights, preferences and privileges), per right (subject to adjustment).

In certain circumstances, Veeco may redeem the rights in whole, but not in part, at a price of \$0.01 per right (payable in cash, common stock or other consideration deemed appropriate by the Veeco board of directors). Immediately upon the action of the Veeco board of directors ordering redemption of the rights, the rights will terminate and the only right of the holders of rights will be to receive the \$0.01 redemption price.

FEI. FEI does not have a shareholder rights plan in place.

EXPERTS

Ernst & Young LLP, independent auditors, have audited Veeco's consolidated financial statements and schedule included in Veeco's Annual Report on Form 10-K for the year ended December 31, 2001, as set forth in their report, which is incorporated by reference in this joint proxy statement/prospectus and which is based in part on the report of PriceWaterhouseCoopers LLP, independent auditors. Veeco's consolidated financial statements and schedule are incorporated by reference in reliance on such reports, given on the authority of such firms as experts in accounting and auditing.

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The consolidated financial statements of Applied Epi and subsidiaries as of and for the years ended December 31, 2000 and 1999, incorporated by reference in this joint proxy statement/prospectus to Veeco's Amendment No. 3 to its Current Report on Form 8-K/A filed with the SEC on November 30, 2001, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, incorporated by reference herein, and has been incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The financial statements and financial statement schedule incorporated by reference in this joint proxy statement/prospectus from FEI Company's annual report on Form 10-K for the year ended December 31, 2001 have been audited by Deloitte & Touche LLP, independent auditors, as stated in its reports, which are incorporated by reference herein and have been so incorporated in reliance upon the reports of such firm given upon its authority as an expert in accounting and auditing.

LEGAL MATTERS

Kaye Scholer LLP will provide a legal opinion as to the legality of the shares of Veeco common stock offered under this joint proxy statement/prospectus. Kaye Scholer LLP will pass upon certain federal income tax consequences of the merger. Wilson Sonsini Goodrich & Rosati, Professional Corporation, will pass upon certain federal income tax consequences of the merger.

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DOCUMENTS INCORPORATED BY REFERENCE IN THIS JOINT PROXY STATEMENT/PROSPECTUS

This joint proxy statement/prospectus incorporates documents by reference which are not presented in or delivered with it.

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All documents filed by Veeco and FEI under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, after the date of this joint proxy statement/prospectus and before the Effective Date, are incorporated by reference into this joint proxy statement/prospectus and will constitute a part of this joint proxy statement/prospectus from the date of filing of those documents.

You should rely only on the information contained in this joint proxy statement/prospectus or information to which we have referred you. Neither FEI nor Veeco has authorized anyone to provide you with information that is different.

Veeco filed the Veeco registration statement on Form S-4 to register with the SEC the shares of Veeco common stock to be issued to FEI shareholders in the merger. This joint proxy statement/prospectus is a part of that registration statement and constitutes a prospectus of Veeco, as well as a proxy statement of Veeco and FEI for both the Veeco special meeting of stockholders and the FEI special meeting of shareholders.

As allowed by the rules of the Securities and Exchange Commission, this joint proxy statement/prospectus does not contain all the information you can find in the Veeco registration statement or the exhibits to the registration statement. The Securities and Exchange Commission allows us to "incorporate by reference" information into this joint proxy statement/prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the Securities and Exchange Commission. The information incorporated by reference is deemed to be part of this joint proxy statement/prospectus. This joint proxy statement/prospectus incorporates by reference the documents set forth below that Veeco and FEI have previously filed with the Securities and Exchange Commission. These documents contain important information about Veeco and FEI and their respective financial conditions.

VEECO SEC FILINGS	PERIOD, FILING OR EFFECTIVE DATE
Annual Report on Form 10-K	Year ended December 31, 2001, filed on March 27, 2002
Quarterly Reports on Form 10-Q	Three months ended March 31, 2002, filed on May 9, 2002
Reports on Form 8-K	Filed on July 12, 2002, September 14, 2001 and September 21, 2001
Reports on Form 8-K/A	Filed on July 22, 2002, October 1, 2001, October 2, 2001 and November 30, 2001
Registration Statement on Form 8-A	Effective on November 29, 1994
Registration Statement on Form 8-A	Effective on March 15, 2001
Registration Statement on Form 8-A/A	Effective on September 21, 2001
Registration Statement on Form 8-A/A	Effective on August 8, 2002

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FEI SEC FILINGS	PERIOD, FILING OR EFFECTIVE DATE
Annual Report on Form 10-K	Year ended December 31, 2001, filed on April 1, 2002
Quarterly Report on Form 10-Q	Three months ended March 31, 2002, filed on May 15, 2002
Report on Form 8-K	Filed on July 15, 2002
Registration Statement on Form 8-A	Effective on May 31, 1995

Veeco has supplied all information contained or incorporated by reference in this joint proxy statement/prospectus relating to Veeco, and FEI has supplied all such information relating to FEI.

All documents subsequently filed by FEI or Veeco pursuant to Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, prior to the date on which the latest to occur of the FEI special meeting of shareholders or Veeco special meeting of stockholders is to be held, shall be deemed to be incorporated by reference into this joint proxy statement/prospectus.

To the extent that any statement in this joint proxy statement/prospectus is inconsistent with any statement that is incorporated by reference, the statement in this joint proxy statement/prospectus will control. The incorporated statement will not be deemed, except as modified or superseded, to be a part of this joint proxy statement/prospectus or the registration statement of which this joint proxy statement/prospectus is a part.

WHERE YOU CAN FIND MORE INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about Veeco and FEI that has not been included or delivered with this prospectus. The documents incorporated by reference into this joint proxy statement/prospectus are available from Veeco or FEI upon request. We will provide to you without charge, upon your written or oral request, a copy of all of the information that is incorporated by reference in this joint proxy statement/prospectus, except for exhibits, unless the exhibits are specifically incorporated by reference into this joint proxy statement/prospectus. **You should make any request for documents by _____, 2002 to ensure timely delivery of the documents.**

Reports, proxy statements and other information regarding FEI or Veeco may be inspected at:

The National Association of Securities Dealers
1735 K Street, N.W.
Washington, DC 20006

Requests for documents relating to Veeco should be directed to either:

Georgeson Shareholder Communications Inc.
17 State Street, 28th Floor
New York, NY 10004
(212) 805-7000

or

Veeco Instruments Inc.
Investor Relations
100 Sunnyside Boulevard
Woodbury, NY 11797
(516) 677-0200, Ext. 1403

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Requests for documents relating to FEI should be directed to either:

Georgeson Shareholder Communications Inc.
17 State Street, 28th Floor
New York, NY 10004
(212) 805-7000

or

FEI Company
Investor Relations
7451 NW Evergreen Parkway
Hillsboro, OR 97124
(503) 640-7500, Ext. 7527

Veeco and FEI each file reports, proxy statements and other information with the Securities and Exchange Commission. Copies of these reports, proxy statements and other information may be read and copied at the public reference facilities maintained by the Securities and Exchange Commission at:

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Judiciary Plaza	Citicorp Center
Room 1204	500 West Madison Street
450 Fifth Street, N.W.	Suite 1400
Washington, D.C. 20549	Chicago, Illinois 60661

Copies of these materials can also be obtained by mail at prescribed rates from the Public Reference Section of the Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C., 20549 or by calling the Securities and Exchange Commission at 1-800-SEC-0330. You may obtain information on the operations of the Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission also maintains an Internet site that contains reports, proxy and information statements and other information regarding each of us. The address of this website is <http://www.sec.gov>. Veeco has filed a registration statement on Form S-4 under the Securities Act of 1933, as amended, with the Securities and Exchange Commission with respect to Veeco common stock to be issued to FEI shareholders in the merger. This joint proxy statement/prospectus constitutes the prospectus of Veeco filed as part of that registration statement on Form S-4. This joint proxy statement/prospectus does not contain all of the information set forth in that registration statement on Form S-4 because some parts of the registration statement are omitted as permitted by the rules and regulations of the Securities and Exchange Commission. You may inspect and copy Veeco's registration statement on Form S-4 and its exhibits at any of the addresses listed above.

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OTHER MATTERS

Deadline for Veeco Annual Meeting Proxy Proposals

Veeco stockholder proposals intended to be included in the proxy statement and form of proxy for Veeco's annual meeting of stockholders to be held in 2003, in addition to meeting certain eligibility requirements established by the Securities and Exchange Commission, must be in writing and received by the Secretary of Veeco at Veeco's principal executive offices on or before December 13, 2002. Alternate notice deadlines apply if the date of Veeco's annual meeting differs by more than 30 days from the date of the previous year's annual meeting.

Deadline for FEI Annual Meeting Proxy Proposals

As a result of the merger, FEI does not anticipate holding its 2003 annual meeting of shareholders. If such meeting is held, FEI shareholder proposals intended to be included in the proxy statement and form of proxy for FEI's annual meeting of shareholders to be held in 2003, in addition to meeting certain eligibility requirements established by the Securities and Exchange Commission, must be in writing and received by the Secretary of FEI at FEI's principal executive offices on or before December 16, 2002. If notice of a shareholder proposal to be raised at FEI's 2003 annual shareholders meeting is received at the principal executive offices of FEI after March 1, 2003 (45 days before the month and date in 2002 corresponding to the date on which FEI mailed its proxy materials for the 2002 annual meeting), such proposal will be considered untimely. Alternate notice deadlines apply if the date of FEI's annual meeting differs by more than 30 days from the date of the previous year's annual meeting.

This joint proxy statement/prospectus does not constitute an offer to sell, or solicitation of an offer to purchase, the Veeco common stock or the solicitation of a proxy, in any jurisdiction to or from any person to whom or from whom it is unlawful to make the offer, solicitation of an offer or proxy solicitation in that jurisdiction. Neither the delivery of this joint proxy statement/prospectus nor any distribution of securities means, under any circumstances, that there has been no change in the information contained in or incorporated by reference in this joint proxy statement/prospectus or in Veeco's or FEI's affairs since the date of this joint proxy statement/prospectus. The information contained in this joint proxy statement/prospectus with respect to FEI and its subsidiaries was provided by FEI and the information contained in this joint proxy statement/prospectus with respect to Veeco and its subsidiaries was provided by Veeco.

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Appendix A

AGREEMENT AND PLAN OF MERGER

AMONG

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**VEECO INSTRUMENTS INC.,
VENICE ACQUISITION CORP.**

AND

FEI COMPANY

July 11, 2002

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AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER (this "Merger Agreement") is made as of July 11, 2002, by and among Veeco Instruments Inc., a Delaware corporation ("Veeco"), Venice Acquisition Corp., an Oregon corporation and a wholly owned subsidiary of Veeco ("Acquisition"), and FEI Company, an Oregon corporation ("FEI").

WHEREAS, upon the terms and subject to the conditions set forth herein and in accordance with the provisions of the Delaware General Corporation Law (the "DGCL") and the Oregon Business Corporation Act (the "OBCA"), Veeco, FEI and Acquisition are entering into a business combination pursuant to which Acquisition will merge with and into FEI, with the result that FEI shall be the surviving corporation and shall become a wholly owned subsidiary of Veeco (the "Merger"), all upon the terms and conditions set forth herein.

WHEREAS, the Boards of Directors of FEI, Veeco and Acquisition have (i) determined that the Merger is consistent with and in furtherance of their long-term business strategies and fair to, advisable and in the best interests of their respective stockholders; (ii) approved this Merger Agreement and all other agreements and transactions contemplated by this Merger Agreement; and (iii) in the case of the Board of Directors of FEI, determined to recommend that its stockholders vote to approve the Merger, and, in the case of the Board of Directors of Veeco, determined to recommend that its stockholders vote to approve the issuance of the Veeco Shares in the Merger.

WHEREAS, Veeco has entered into those certain Voting Agreements in the forms attached hereto as Exhibit A (the "FEI Stockholder Voting Agreements"), dated as of the date hereof, with the stockholders of FEI listed on Schedule A to this Merger Agreement. Pursuant to the FEI Stockholder Voting Agreements, such stockholders of FEI have granted to Veeco irrevocable proxies to vote the shares of FEI Common Stock (as defined below) held by them in favor of approving the Merger, and against any alternative proposals, action, failure to act, or agreement that would result in a breach of any covenant, representation or agreement of FEI under this Merger Agreement.

WHEREAS, FEI has entered into those certain Voting Agreements in the forms attached hereto as Exhibit B (the "Veeco Stockholder Voting Agreements"), dated as of the date hereof, with the stockholders of Veeco listed on Schedule B to this Merger Agreement. Pursuant to the Veeco Stockholder Voting Agreements, such stockholders of Veeco have granted to FEI irrevocable proxies to vote the Veeco Shares (as defined below) held by them in favor of approving the issuance of the Veeco Shares in the Merger, and against any alternative proposals, action, failure to act, or agreement that would result in a breach of any covenant, representation or agreement of Veeco under this Merger Agreement.

WHEREAS, the Merger is intended to qualify as a reorganization within the meaning of Section 368(a) of the Code (as defined below).

NOW, THEREFORE, in consideration of the mutual covenants set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, hereby agree as follows:

I. DEFINITIONS

1.01 Certain Definitions. For purposes of this Merger Agreement, the following terms shall have the following meanings:

"Acquisition" shall have the meaning set forth in the introductory paragraph of this Merger Agreement.

"Affiliate" of any Person shall mean, with respect to any Person, an affiliate of such Person within the meaning of Rule 405 promulgated under the Securities Act.

"Articles of Merger" shall have the meaning set forth in Section 2.02.

"Assumed Purchase Right" shall have the meaning set forth in Section 5.06(a).

"Benefit Plan" shall mean, with respect to any Person, any employee benefit plan, program, policy, practice, agreement, contract or other arrangement providing benefits to any current or former

employee, officer or director of such Person or any of its ERISA Affiliates or any beneficiary or dependent thereof that is sponsored or maintained by such Person or any of its ERISA Affiliates or to which such Person or any of its ERISA Affiliates contributes or is obligated to contribute, whether or not written, including any employee welfare benefit plan within the meaning of Section 3(1) of ERISA, any employee pension benefit plan within the meaning of Section 3(2) of ERISA (whether or not such plan is subject to ERISA), any employment or severance agreement, and any bonus, incentive, deferred compensation, vacation, stock purchase, stock option, severance, change of control or fringe

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benefit plan, program or policy.

"business day" shall mean any day other than Saturday, Sunday or other day on which commercial banks in New York, New York are authorized or required by law to close.

"Closing" shall have the meaning set forth in Section 2.03(a).

"Closing Date" shall have the meaning set forth in Section 2.03(a).

"Closing Price Per Share" shall mean the closing price per Veeco Share as reported by the NASDAQ on the trading day immediately preceding the Closing Date.

"Code" shall mean the United States Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder or any successor statute thereto.

"Consent" shall mean any approval, permit, consent, ratification, permission, waiver or authorization (including any License or governmental authorization).

"Constituent Corporations" shall have the meaning set forth in Section 2.01.

"Contract" shall mean any agreement, arrangement, commitment, understanding, indemnity, indenture, instrument or lease, including any and all amendments, supplements, and modifications (whether oral or written) thereto, whether or not in writing.

"Controlled Group Liability" shall mean any and all liabilities (a) under Title IV of ERISA, other than for payment of premiums to the PBGC (including without limitation on account of a complete or partial withdrawal from, or unpaid contribution to, a "multiemployer plan" within the meaning of Section 4001(a)(3) of ERISA), (b) under Section 302 of ERISA, (c) under Sections 412 and 4971 of the Code, (d) for violation of the continuation coverage requirements of Section 601 et seq. of ERISA and Section 4980B of the Code or the group health requirements of Section 701 et seq. of ERISA, or the provisions of law enacted by the Health Insurance Portability and Accountability Act of 1996, and (e) under corresponding or similar provisions of foreign laws or regulations.

"DGCL" shall have the meaning set forth in the first WHEREAS clause to this Merger Agreement.

"Effective Time" shall have the meaning set forth in Section 2.02.

"Environment" shall mean the soil, land surface or subsurface strata, surface waters (including navigable waters, ocean waters, streams, ponds, drainage basins and wetlands), groundwaters, drinking water supply, stream sediments, ambient air (including indoor air), plant and animal life, and any other environmental medium or natural resource.

"Environmental Laws" shall mean any foreign, state, federal or local laws, ordinances, codes, regulations, statutes and orders promulgated by any Governmental Authority relating to Hazardous Substances, pollution, natural resources, protection of the Environment or public health and safety, including, without limitation, laws and regulations relating to the use, treatment, storage, release, disposal or transportation of Hazardous Substances or the handling and disposal of medical and biological waste.

"Environmental Permits" shall have the meaning set forth in Section 3.15(a).

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"Equity Securities" shall mean any (i) capital stock or any securities representing any other equity interest or (ii) any securities convertible into or exchangeable for capital stock or any other equity interest, or any other rights, warrants or options to acquire any of the foregoing securities.

"ERISA" shall mean the Employee Retirement Income Security Act of 1974, as amended, and the rules and regulations promulgated thereunder.

"ERISA Affiliate" shall mean with respect to any Person (a) any corporation that is a member of a controlled group of corporations, within the meaning of Section 414(b) of the Code, of which that Person is a member, (b) any trade or business (whether or not incorporated) that is a member of a group of trades or businesses under common control, within the meaning of Section 414(c) of the Code, of which that Person is a

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member, and (c) any member of an affiliated service group, within the meaning of Section 414(m) and (o) of the Code, of which that Person or any entity described in clause (a) or (b) is a member.

"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.

"Exchange Agent" shall have the meaning set forth in Section 2.08(a).

"Exchange Fund" shall have the meaning set forth in Section 2.08(a).

"Exchange Ratio" shall have the meaning set forth in Section 2.06(a).

"Existing Policy" shall have the meaning set forth in Section 5.08(b).

"FEI" shall have the meaning set forth in the introductory paragraph to this Merger Agreement.

"FEI Acquisition Proposal" shall mean any offer, proposal, inquiry or indication of interest (other than an offer, proposal, inquiry or indication of interest by Veeco) contemplating or otherwise relating to any FEI Acquisition Transaction.

"FEI Acquisition Transaction" shall mean any transaction or series of related transactions (other than the transactions contemplated by this Merger Agreement) involving:

(a) any merger, reorganization, consolidation, share exchange, recapitalization, business combination, issuance of securities, purchase or acquisition of securities, tender offer, exchange offer or other similar transaction (i) in which FEI or any other Material FEI Entity is a constituent corporation, (ii) in which a Person or "group" (as defined and described under Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder) of Persons directly or indirectly acquires beneficial or record ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of FEI or another Material FEI Entity, or (iii) in which FEI or any other Material FEI Entity issues securities representing more than 15% of the outstanding securities of any class of voting securities of FEI or such Material FEI Entity;

(b) any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets (other than in the ordinary course of business) that constitute or account for 15% or more of the consolidated net revenues, net income or assets (measured by fair market value) of FEI and the other FEI Entities, on a consolidated basis; or

(c) any liquidation or dissolution of FEI.

"FEI Authorizations" shall have the meaning set forth in Section 3.06(b).

"FEI Balance Sheet" shall have the meaning set forth in Section 3.05.

"FEI Balance Sheet Date" shall have the meaning set forth in Section 3.11.

"FEI Benefit Plan" shall mean any Benefit Plan maintained or contributed to by FEI, a Subsidiary of FEI or an ERISA Affiliate of either, or to which FEI, a Subsidiary of FEI or an ERISA Affiliate of either is required to contribute.

"FEI Board Recommendation" shall have the meaning set forth in Section 5.22(b).

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"FEI's Broker" shall have the meaning set forth in Section 3.16.

"FEI Common Stock" shall mean the common stock of FEI, no par value per share.

"FEI Confidential IP Information" shall have the meaning set forth in Section 3.13(f).

"FEI Contract" shall have the meaning set forth in Section 3.08(a).

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"FEI Convertible Debt" shall have the meaning set forth in Section 3.02(b).

"FEI Disclosure Schedule" shall mean the disclosure schedule that has been prepared by FEI in accordance with the requirements of Section 10.07 hereof and that has been delivered by FEI to Veeco on the date of this Merger Agreement.

"FEI Entities" shall mean FEI and each of its Subsidiaries.

"FEI ESPP" shall have the meaning set forth in Section 5.06(a).

"FEI Financial Statements" shall have the meaning set forth in Section 3.04.

"FEI Insider" shall have the meaning set forth in Section 5.24.

"FEI Intellectual Property" shall mean all Intellectual Property used in or necessary for the conduct of FEI's and its Subsidiaries' businesses as currently conducted.

"FEI Options" shall have the meaning set forth in Section 3.02(b).

"FEI-Owned IP" shall have the meaning set forth in Section 3.13(c).

"FEI Rights Agreement" shall mean any preferred stock rights agreement (commonly known as a "poison pill") entered into or put in place by FEI.

"FEI SEC Documents" shall mean each statement, report, form, schedule, registration statement (including the related prospectus in the form filed pursuant to Rule 424(b) of the Securities Act) and proxy statement or information statement, and all other filings filed with the SEC by FEI since January 1, 1999.

"FEI Stock Certificate" shall have the meaning set forth in Section 2.07.

"FEI Stockholders' Meeting" shall have the meaning set forth in Section 5.22(a).

"FEI Stockholder Voting Agreements" shall have the meaning set forth in the third WHEREAS clause to this Merger Agreement.

"FEI Triggering Event" shall be deemed to have occurred if: (i) the Board of Directors of FEI shall have failed to recommend that FEI's stockholders vote to approve the Merger, or shall have withdrawn or modified in a manner adverse to Veeco the FEI Board Recommendation; (ii) FEI shall have failed to include in the Joint Proxy Statement the FEI Board Recommendation; (iii) the Board of Directors of FEI shall have approved, endorsed or recommended any FEI Acquisition Transaction; (iv) FEI shall have entered into any letter of intent or similar document or any Contract providing for any FEI Acquisition Transaction; (v) FEI shall have failed to hold the FEI Stockholders' Meeting in accordance with Section 5.22; (vi) FEI shall have failed to prepare and mail to its stockholders the Joint Proxy Statement in accordance with Section 5.21; (vii) a tender or exchange offer relating to FEI's securities shall have been commenced by a Person unaffiliated with Veeco, and FEI shall not have sent to its stockholders, pursuant to Rule 14e-2 promulgated under the Exchange Act, within ten business days after such tender or exchange offer is first published, sent, given or otherwise commenced, a statement disclosing that the Board of Directors of FEI recommends rejection of such tender or exchange offer; (viii) the Board of Directors of FEI shall have granted any approval or taken any other step to exempt any transaction (other than the Merger and the other transactions with Veeco and Acquisition contemplated by this Merger Agreement) from the requirements and provisions of Section 835 of the OBCA or other state anti-takeover statutes or regulations; (ix) FEI's Board of Directors shall have amended or resolved to amend the FEI Rights Agreement, if in effect, in a

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manner so as to render it inapplicable to any FEI Acquisition Transaction (other than with respect to the Merger and other transactions contemplated by this Merger Agreement) or (x) any of the FEI Entities shall have violated in a material manner any of the restrictions set forth in Section 5.16.

"Foreign Continuing Employees" shall have the meaning set forth in Section 5.07(d).

"Form S-4 Registration Statement" shall mean the registration statement on Form S-4 to be filed with the SEC by Veeco in connection with the issuance of Veeco Shares in the Merger, as said registration statement may be amended from time to time prior to or after the time it is

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declared effective by the SEC.

"GAAP" shall mean United States generally accepted accounting principles.

"Governmental Authority" shall mean any government or any agency, bureau, board, commission, court, department, official, political subdivision, tribunal or other instrumentality of any government, whether federal, state or local, domestic or foreign.

"Hazardous Substances" shall mean (i) any waste, substance or material that is prohibited, limited, or regulated by any Environmental Law, or that has been designated by any Governmental Authority to be radioactive, toxic, hazardous or otherwise a danger to health, reproduction or the environment; (ii) asbestos-containing material, (iii) medical and biological waste, (iv) polychlorinated biphenyls, and (v) petroleum products, including gasoline, fuel oil, crude oil and other various constituents of such products.

"Hazardous Substance Activities" shall mean the transportation, transfer, recycling, storage, use, treatment, manufacture, removal, remediation, release, exposure of others to, sale or distribution of any Hazardous Substance or any product containing a Hazardous Substance.

"HSR Act" shall mean the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

"Indemnified Persons" shall have the meaning set forth in Section 5.08(a).

"Intellectual Property" means shall mean any or all of the following and all rights in, arising out of, or associated therewith: (i) all United States, international and foreign patents and applications therefor and all reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof; (ii) all inventions (whether patentable or not), invention disclosures, improvements, trade secrets, proprietary information, know how, technology, technical data and customer lists, and all documentation relating to any of the foregoing; (iii) all copyrights, copyrights registrations and applications therefor, and all other rights corresponding thereto throughout the world; (iv) all industrial designs and any registrations and applications therefor throughout the world; (v) all mask works and any registrations and applications therefor throughout the world (vi) all trade names, logos, URLs, common law trademarks and service marks, trademark and service mark registrations and applications therefor throughout the world; (vii) all databases and data collections and all rights therein throughout the world; (viii) all moral and economic rights of authors and inventors, however denominated, throughout the world; and (ix) any similar or equivalent rights to any of the foregoing throughout the world.

"IRS" shall mean the Internal Revenue Service of the United States or any successor agency, and, to the extent relevant, the United States Department of the Treasury.

"Joint Proxy Statement" shall mean the joint proxy statement/prospectus to be sent to FEI's stockholders in connection with the FEI Stockholders' Meeting and to Veeco's stockholders in connection with the Veeco Stockholders' Meeting.

"knowledge" shall mean, (i) with respect to an individual, the actual knowledge of such individual and (ii) with respect to any Person other than an individual, the actual knowledge of any officer or director of a corporate entity or other Person performing similar functions for any other type of non-individual Person.

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"Law" shall mean any constitutional provision or any statute or other law, rule or regulation of any Governmental Authority and any decree, injunction, judgment, order, ruling, assessment or writ.

"Legal Proceeding" shall mean any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), hearing, inquiry, audit, examination or investigation commenced, brought, conducted or heard by or before, or otherwise involving, any court or other Governmental Authority or any arbitrator or arbitration panel.

"Lien" shall mean any lien, pledge, mortgage, deed of trust, security interest, attachment, claim, lease, charge, option, right of first refusal, easement, servitude, encroachment or other survey defect, transfer restriction or other encumbrance of any nature whatsoever, except for liens for Taxes not yet due and payable.

"Material Adverse Effect" shall mean, with respect to any Person, a material adverse effect on (i) the business, assets, financial condition, operations or results of operations of such Person and its Subsidiaries, taken as a whole or (ii) the ability of such Person to consummate the transactions contemplated by this Merger Agreement prior to the Termination Date; *provided, however*, that, for purposes of clause (i) above, in no event shall any of the following, alone or in combination with one another, be deemed to constitute, nor shall any of the following be taken

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into account in determining whether there has been or will be, a Material Adverse Effect: (A) any effect resulting from compliance with the express terms and conditions of this Agreement; (B) any effect resulting from the announcement or pendency of the Merger (provided that the exception in this clause (B) shall not apply to the use of the term "Material Adverse Effect" in Sections 7.01 and 8.01 with respect to the representations and warranties contained in Sections 3.03, 3.07, 3.08, 3.13(b), 4.03, 4.07, 4.08, and 4.13(b)); (C) any changes in the Person's stock price or trading volume (but excluding the reasons for such changes in the stock price or trading volume); (D) any failure by the Person to meet published revenue or earnings projections (but excluding the reasons for failing to meet such projections); (E) any effect that results from changes affecting any of the industries in which the Person operates generally or the United States economy generally (including prevailing interest rate and stock market levels); (F) any effect that results primarily from changes affecting general worldwide economic or capital market conditions (which changes in each case do not disproportionately affect the Person in any material respect); or (G) stockholder class action litigation arising from allegations of a breach of fiduciary duty relating to this Agreement.

"Material FEI Entity" shall mean any FEI Entity that is a "significant subsidiary" (as such term is defined in Regulation 210.1-02(w) of Regulation S-X of the SEC) of FEI.

"Material Veeco Entity" shall mean any Veeco Entity that is a "significant subsidiary" (as such term is defined in Regulation 210.1-02(w) of Regulation S-X of the SEC) of Veeco.

"Merger" shall have the meaning set forth in the first WHEREAS clause to this Merger Agreement.

"Merger Agreement" shall mean this Agreement and Plan of Merger, as amended, supplemented or otherwise modified from time to time.

"Merger Consideration" shall have the meaning set forth in Section 2.06(a).

"NASDAQ" shall mean The NASDAQ Stock Market, Inc.

"OBCA" shall have the meaning set forth in the first WHEREAS clause to this Merger Agreement.

"Party(ies)" shall mean FEI or Veeco and all of their respective Subsidiaries, including Acquisition.

"PBGC" shall mean the Pension Benefit Guaranty Corporation, or any successor thereto.

"Person" shall mean any individual, corporation, limited liability company, partnership, firm, joint venture, association, joint-stock company, trust, unincorporated organization, or other entity or

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organization, whether or not a legal entity, and including, without limitation, any Governmental Authority.

"Philips" shall mean Philips Business Electronics International B.V.

"Qualifying Amendment" shall mean an amendment or supplement to the Joint Proxy Statement or Form S-4 Registration Statement (including by incorporation by reference) to the extent it contains (a) a change in the Veeco Board Recommendation or a change in the FEI Board Recommendation (as the case may be), (b) a statement of the reasons of the Board of Directors of Veeco or FEI (as the case may be) for making such change in the Veeco Board Recommendation or the FEI Board Recommendation (as the case may be) and (c) additional information reasonably related to the foregoing.

"Regulatory Law" shall mean the HSR Act, and all other federal, state and foreign, if any, statutes, rules, regulations, orders, decrees, administrative and judicial doctrines and other laws that are designed or intended to prohibit, restrict, or regulate (a) mergers, acquisitions or other business combinations, (b) foreign investment or (c) actions having the purpose or effect of monopolization or restraint of trade or lessening of competitions.

"Release" shall mean any spilling, leaking, emitting, discharging, depositing, escaping, leaching, dumping, or other releasing, whether intentional or unintentional.

"Representatives" shall mean, with respect to any Person, its officers, directors, attorneys, accountants, advisors and other representatives.

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"Required FEI Stockholder Vote" shall mean the affirmative vote of the holders of a majority of the shares of FEI Common Stock entitled to vote at the FEI Stockholders Meeting in which a quorum is present in conformance with the requirements of OBCA, FEI's articles of incorporation, charter documents and by-laws, and NASDAQ.

"Required Veeco Stockholder Vote" shall mean the affirmative vote of the holders of a majority of the outstanding Veeco Shares entitled to vote at the Veeco Stockholders Meeting in which a quorum is present in conformance with the requirements of DGCL, Veeco's certificate of incorporation, charter documents and by-laws, and NASDAQ.

"SEC" shall mean the United States Securities and Exchange Commission.

"Securities Act" shall mean the Securities Act of 1933, as amended.

"Subsidiary" shall mean a Person shall be deemed to be a "Subsidiary" of another Person if such Person directly or indirectly owns, beneficially or of record, (a) an amount of voting securities or other interests in such Person that is sufficient to enable such Person to elect at least a majority of the members of such Person's Board of Directors or other governing body, or (b) at least 50% of the outstanding equity or financial interests of such Person.

"Superior FEI Proposal" shall mean an unsolicited, *bona fide*, written offer made by a third party (other than by Veeco or by a Veeco Entity) with respect to a FEI Acquisition Transaction on terms that the Board of Directors of FEI determines in good faith make it more favorable to the stockholders of FEI for FEI to consummate such FEI Acquisition Transaction, than for FEI to consummate the Merger, after, among other relevant considerations, consultation with an independent financial advisor of nationally recognized reputation; *provided, however*, that any such offer shall not be deemed to be a "Superior FEI Proposal" if any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party. For purposes of this definition, the term "FEI Acquisition Transaction" shall have the meaning ascribed to such term in this Article I, except that references to "15%" therein shall be deemed to read "50%."

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"Superior Veeco Proposal" shall mean an unsolicited, *bona fide*, written offer made by a third party (other than by FEI or by a FEI Entity) with respect to a Veeco Acquisition Transaction on terms that the Board of Directors of Veeco determines in good faith make it more favorable to the stockholders of Veeco for Veeco to consummate such Veeco Acquisition Transaction, than for Veeco to consummate the Merger, after, among other relevant considerations, consultation with an independent financial advisor of nationally recognized reputation; *provided, however*, that any such offer shall not be deemed to be a "Superior Veeco Proposal" if any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party. For purposes of this definition, the term "Veeco Acquisition Transaction" shall have the meaning ascribed to such term in this Article I, except that references to "15%" therein shall be deemed to read "50%."

"Surviving Corporation" shall have the meaning set forth in Section 2.01.

"Tax" or "Taxes" shall mean any and all taxes (whether Federal, state, local or municipal, and whether domestic or foreign), including, without limitation, income, profits, franchise, gross receipts, payroll, sales, employment, use, property, withholding, excise, occupation, value added, *ad valorem*, transfer and other taxes, duties or assessments of any nature whatsoever, together with any interest, penalties or additions to tax imposed with respect thereto.

"Tax Returns" shall mean any returns (including any information returns), reports and forms required to be filed with any Governmental Authority in connection with the determination, assessment, collection or payment of any Taxes or in connection with the administration, implementation or enforcement of or compliance with any Law relating to any Tax.

"Termination Date" shall have the meaning set forth in Section 9.01(b).

"Termination Fee" shall have the meaning set forth in Section 9.03(b).

"Threatened" shall mean: a claim, proceeding, dispute, action or other matter will be deemed to have been "Threatened" if any demand or statement has been made (orally or in writing) or any notice has been given (orally or in writing) that would lead a prudent Person to conclude that such a claim, proceeding dispute, action or other matter is likely to be asserted, commenced, taken or otherwise pursued in the near future.

"Transaction Expenses" shall have the meaning set forth in Section 9.03(b).

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"U.S. Continuing Employees" shall have the meaning set forth in Section 5.07(a).

"Veeco" shall have the meaning set forth in the introductory paragraph of this Merger Agreement.

"Veeco Acquisition Proposal" shall mean any offer, proposal, inquiry or indication of interest (other than an offer, proposal, inquiry or indication of interest by FEI) contemplating or otherwise relating to any Veeco Acquisition Transaction.

"Veeco Acquisition Transaction" shall mean any transaction or series of related transactions (other than the transactions contemplated by this Merger Agreement) involving:

(a) any merger, reorganization, consolidation, share exchange, recapitalization, business combination, issuance of securities, purchase or acquisition of securities, tender offer, exchange offer or other similar transaction (i) in which Veeco or any other Material Veeco Entity is a constituent corporation, (ii) in which a Person or "group" (as defined and described under Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder) of Persons directly or indirectly acquires beneficial or record ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of Veeco or another Material Veeco Entity, or (iii) in which Veeco or any other Material Veeco Entity issues securities

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representing more than 15% of the outstanding securities of any class of voting securities of Veeco or such Material Veeco Entity;

(b) any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets (other than in the ordinary course of business) that constitute or account for 15% or more of the consolidated net revenues, net income or assets (measured by fair market value) of Veeco and the other Veeco Entities, on a consolidated basis; or

(c) any liquidation or dissolution of Veeco.

"Veeco Authorizations" shall have the meaning set forth in Section 4.06(b).

"Veeco Balance Sheet" shall have the meaning set forth in Section 4.05.

"Veeco Balance Sheet Date" shall have the meaning set forth in Section 4.11.

"Veeco Benefit Plan" shall mean any Benefit Plan maintained or contributed to by Veeco, a Subsidiary of Veeco or an ERISA Affiliate of either, or to which Veeco, a Subsidiary of Veeco or an ERISA Affiliate of either is required to contribute.

"Veeco Benefits" shall have the meaning set forth in Section 5.07(a).

"Veeco Board Recommendation" shall have the meaning set forth in Section 5.23(b).

"Veeco's Broker" shall have the meaning set forth in Section 4.16.

"Veeco Certificate of Incorporation Amendment" shall mean the Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Veeco, substantially in the form attached hereto as Exhibit C.

"Veeco Confidential IP Information" shall have the meaning set forth in Section 4.13(f).

"Veeco Contract" shall have the meaning set forth in Section 4.08(a).

"Veeco Convertible Debt" shall have the meaning set forth in Section 4.02(b).

"Veeco Disclosure Schedule" shall mean the disclosure schedule that has been prepared by Veeco in accordance with the requirements of Section 10.07 hereof and that has been delivered by Veeco to FEI on the date of this Merger Agreement.

"Veeco Entities" shall mean Veeco and each of its Subsidiaries.

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"Veeco ESPP" shall have the meaning set forth in Section 5.06(b).

"Veeco Financial Statements" shall have the meaning set forth in Section 4.04.

"Veeco Investor Agreement" shall mean that certain Investor Agreement, dated as of the date hereof, by and among Veeco, Philips and FEI.

"Veeco Intellectual Property" shall mean all Intellectual Property used in or necessary for the conduct of Veeco's and its Subsidiaries' businesses as currently conducted.

"Veeco Options" shall have the meaning set forth in Section 4.02(b).

"Veeco-Owned IP" shall have the meaning set forth in Section 4.13(c).

"Veeco Rights Agreement" shall mean that certain Rights Agreement, dated as of March 13, 2001, between Veeco and American Stock Transfer and Trust Company, as amended.

"Veeco SEC Documents" shall mean each statement, report, form, schedule, registration statement (including the related prospectus in the form filed pursuant to Rule 424(b) of the Securities Act) and

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proxy statement or information statement, and all other filings filed with the SEC by Veeco since January 1, 1999.

"Veeco Shares" shall mean the common stock, \$0.01 par value per share, of Veeco.

"Veeco Stockholders' Meeting" shall have the meaning set forth in Section 5.23(a).

"Veeco Stockholder Voting Agreements" shall have the meaning set forth in the fourth WHEREAS clause to this Merger Agreement.

"Veeco Triggering Event" shall be deemed to have occurred if: (i) the Board of Directors of Veeco shall have failed to recommend that Veeco's stockholders vote to approve the issuance of Veeco Shares in the Merger, or shall have withdrawn or modified in a manner adverse to FEI the Veeco Board Recommendation; (ii) Veeco shall have failed to include in the Joint Proxy Statement the Veeco Board Recommendation; (iii) the Board of Directors of Veeco shall have approved, endorsed or recommended any Veeco Acquisition Transaction; (iv) Veeco shall have entered into any letter of intent or similar document or any Contract providing for any Veeco Acquisition Transaction; (v) Veeco shall have failed to hold the Veeco Stockholders' Meeting in accordance with Section 5.23; (vi) Veeco shall have failed to prepare and mail to its stockholders the Joint Proxy Statement in accordance with Section 5.21; (vii) a tender or exchange offer relating to Veeco's securities shall have been commenced by a Person unaffiliated with FEI, and Veeco shall not have sent to its stockholders, pursuant to Rule 14e-2 promulgated under the Exchange Act, within ten business days after such tender or exchange offer is first published, sent, given or otherwise commenced, a statement disclosing that the Board of Directors of Veeco recommends rejection of such tender or exchange offer; (viii) the Board of Directors of Veeco shall have granted any approval or taken any other step to exempt any transaction (other than the Merger and the other transactions with FEI contemplated by this Merger Agreement) from the requirements and provisions of Section 203 of the DGCL or other state anti-takeover statutes or regulations; (ix) Veeco's Board of Directors shall have amended or resolved to amend the Veeco Rights Agreement in a manner so as to render it inapplicable to any Veeco Acquisition Transaction (other than with respect to the Merger and other transactions contemplated by this Merger Agreement) or (x) any of the Veeco Entities shall have violated in a material manner any of the restrictions set forth in Section 5.17.

"Voting Debt" shall mean any bonds, debentures, notes or other indebtedness having the right to vote on any matters on which holders of capital stock of the same issuer may vote.

1.02 The words "hereof," "herein," "hereby" and "hereunder," and words of like import, refer to this Merger Agreement as a whole and not to any particular Section hereof. References herein to any Section, Schedule or Exhibit refer to such Section of, or such Schedule or Exhibit to, this Merger Agreement, unless the context otherwise requires. All pronouns and any variations thereof refer to the masculine, feminine or neuter gender, singular or plural, as the context may require. The word "including," when used herein, means "including, without limitation."

II. THE MERGER

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2.01 The Merger. At the Effective Time of the Merger, Acquisition shall be merged with and into FEI. The separate existence of Acquisition shall thereupon cease and FEI shall continue its corporate existence as the surviving corporation (the "*Surviving Corporation*") under the Laws of the State of Oregon under its present name. FEI and Acquisition are sometimes referred to collectively herein as the "*Constituent Corporations*."

2.02 Effective Time of the Merger. At the Closing, the parties hereto shall cause articles of merger substantially in the form of *Exhibit D* to be executed and filed with the Secretary of State of the State of Oregon, as provided in Section 481 of the OBCA (the "*Articles of Merger*"), and shall take all

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such other and further actions as may be required by Law to make the Merger effective. The Merger shall become effective as of the date and time of the filing of the Articles of Merger. The date and time of such effectiveness are referred to herein as the "*Effective Time*."

2.03 Closing of the Merger

(a) Unless this Merger Agreement shall theretofore have been terminated pursuant to the provisions of Section 9.01 hereof, the closing of the Merger (the "Closing") shall take place as promptly as practicable, but no later than the second business day, following the day on which the last of the conditions (other than conditions which, by their nature, are to be satisfied at Closing, but subject to those conditions) set forth in Articles VI, VII and VIII hereof are fulfilled or waived (by the relevant party or parties), subject to applicable Laws (the "Closing Date"), at the offices of Kaye Scholer LLP, 425 Park Avenue, New York, New York 10022, unless another time, date or place is agreed to in writing by the parties hereto.

(b) Subject to the provisions of this Merger Agreement, Veeco, Acquisition and FEI shall cause to be executed and filed at the Closing the Articles of Merger, and shall cause the Articles of Merger to be recorded in accordance with the provisions of the OBCA and shall take any and all other lawful actions and do any and all other lawful things to cause the Merger to become effective.

2.04 Effects of the Merger. At the Effective Time of the Merger:

(a) the separate existence of Acquisition shall cease and Acquisition shall be merged with and into FEI, which shall be the Surviving Corporation;

(b) the Articles of Incorporation and By-Laws of Acquisition as in effect immediately prior to the Effective Time shall be the Articles of Incorporation and By-Laws of the Surviving Corporation, until each shall thereafter be amended in accordance with each of their terms and as provided by Law;

(c) the directors and officers of the Surviving Corporation immediately after the Effective Time shall be the individuals set forth on Schedule 2.04(c);

(d) the Surviving Corporation shall possess all the rights, privileges, immunities and franchises, of a public as well as of a private nature, of each of the Constituent Corporations, and all property, real, personal, and mixed, and all debts due on whatever account, and all other choses in action, and all and every other interest of or belonging to or due to each of the Constituent Corporations shall be taken and deemed to be transferred to and vested in the Surviving Corporation without further act or deed;

(e) the Surviving Corporation shall thenceforth be responsible and liable for all liabilities and obligations of each of the Constituent Corporations, and any claim existing or action or proceeding pending by or against either of the Constituent Corporations may be prosecuted as if the Merger had not taken place or the Surviving Corporation may be substituted in its place. Neither the rights of creditors nor Liens upon the property of either of the Constituent Corporations shall be impaired by the Merger; and

(f) the FEI Convertible Debt shall become convertible solely into a number of Veeco Shares equal to the number of Veeco Shares that would have been issued if the FEI Convertible Debt had been converted into FEI Common Stock immediately prior to the Effective Time.

2.05 Amendment of Veeco's Certificate of Incorporation and Bylaws.

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(a) Immediately following the Effective Time, Article I of the Amended and Restated Certificate of Incorporation of Veeco shall be amended in its entirety to provide that "The name of the corporation is Veeco FEI Inc. (the "Corporation")."

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(b) Immediately following the Effective Time, the Bylaws of Veeco shall be amended and restated as set forth in *Exhibit E*.

2.06 Conversion of Shares. As of the Effective Time, by virtue of the Merger and without any further action on the part of Veeco, Acquisition, FEI or any holder of any Equity Securities of the Constituent Corporations:

(a) Each share of FEI Common Stock issued and outstanding immediately prior to the Effective Time shall be converted into the right to receive 1.355 Veeco Shares (the "Merger Consideration"). Accordingly, 1.355 is hereinafter referred to as the "Exchange Ratio."

(b) Each share of common stock of Acquisition issued and outstanding immediately prior to the Effective Time shall be converted into and exchanged for one validly issued, fully paid and nonassessable share of common stock of the Surviving Corporation.

(c) The Exchange Ratio shall be adjusted to reflect fully the effect of any stock split, reverse split, stock dividend (including any dividend or distribution of securities convertible into Veeco Shares or FEI Common Stock), reorganization, recapitalization or other like change with respect to Veeco Shares or FEI Common Stock occurring after the date of this Merger Agreement and prior to the Effective Time or after the Effective Time if the record date with respect thereto is set after the date of this Merger Agreement and prior to the Effective Time.

(d) No fraction of a Veeco Share will be issued in exchange for surrendered shares of FEI Common Stock, but in lieu thereof each holder of shares of FEI Common Stock who would otherwise be entitled to a fraction of a Veeco Share (after aggregating all fractional shares of Veeco Shares to be received by such holder) shall receive from Veeco an amount of cash (rounded to the nearest whole cent), without interest, equal to the product of (i) such fraction, multiplied by (ii) the Closing Price Per Share.

(e) All FEI Common Stock, by virtue of the Merger and without any action on the part of the holders thereof, shall no longer be outstanding and shall be canceled and retired and shall cease to exist, and each holder of a FEI Stock Certificate shall thereafter cease to have any rights with respect to the shares of FEI Common Stock represented thereby, except the right to receive the Merger Consideration for such FEI Common Stock upon the surrender of such FEI Stock Certificate in accordance with this Section and Section 2.08 hereof.

(f) If any shares of FEI Common Stock outstanding immediately prior to the Effective Time are unvested or are subject to a repurchase option, risk of forfeiture or other condition under any applicable restricted stock purchase agreement or other agreement with FEI or any other FEI Entity or under which FEI or any other FEI Entity has any rights, then the Veeco Shares issued in exchange for such shares of FEI Common Stock will also be unvested and subject to the same repurchase option, risk of forfeiture or other condition, and the certificates representing such Veeco Shares may accordingly be marked with appropriate legends. FEI shall use commercially reasonable efforts to ensure that, from and after the Effective Time, Veeco is entitled to exercise any such repurchase option or other right set forth in any such restricted stock purchase agreement or other agreement.

2.07 Closing of FEI's Transfer Books. At the Effective Time, the stock transfer books of FEI shall be closed with respect to all shares of FEI Common Stock outstanding immediately prior to the Effective Time. No further transfer of any such shares of FEI Common Stock shall be made on such stock transfer books after the Effective Time. If, after the Effective Time, a valid certificate previously representing any shares of FEI Common Stock (a "FEI Stock Certificate") is presented to the Exchange Agent or to the Surviving Corporation or Veeco, such FEI Stock Certificate shall be canceled, and shall be exchanged as provided in Section 2.08 hereof.

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2.08 Exchange of Certificates.

(a) On or prior to the Closing Date, Veeco shall select a reputable bank or trust company to act as exchange agent in the Merger (the "Exchange Agent"). Promptly (but in no event more than three business days) after the Effective Time, Veeco shall deposit with the Exchange Agent (i) certificates representing the Veeco Shares issuable pursuant to this Article II and (ii) cash sufficient to make payments in lieu of fractional shares in accordance with Section 2.06(d) hereof. The Veeco Shares and cash amounts so deposited with the Exchange Agent, together with any dividends or distributions received by the Exchange Agent with respect to such shares, are

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referred to herein collectively as the "Exchange Fund."

(b) As soon as reasonably practicable after the Effective Time (but in no event more than three business days after the Effective Time), the Exchange Agent will mail to the record holders of FEI Stock Certificates: (i) a letter of transmittal in customary form and containing such provisions as Veeco may reasonably specify (including a provision confirming that delivery of FEI Stock Certificates shall be effected, and risk of loss and title to FEI Stock Certificates shall pass, only upon delivery of such FEI Stock Certificates to the Exchange Agent), and (ii) instructions for use in effecting the surrender of FEI Stock Certificates in exchange for certificates representing Veeco Shares as contemplated by this Article II. Upon surrender of a FEI Stock Certificate to the Exchange Agent for exchange, together with a duly executed letter of transmittal and such other documents as may be reasonably required by the Exchange Agent or Veeco, (1) the holder of such FEI Stock Certificates shall be entitled to receive in exchange therefor a certificate representing the number of whole Veeco Shares that such holder has the right to receive pursuant to the provisions of Section 2.06 hereof (and an appropriate amount of cash in lieu of any fractional Veeco Share otherwise issuable), and (2) the FEI Stock Certificate so surrendered shall be canceled. Until surrendered as contemplated by this Section 2.08, each FEI Stock Certificate shall be deemed, from and after the Effective Time, to represent only the right to receive Veeco Shares (and an appropriate amount of cash in lieu of any fractional Veeco Share otherwise issuable) as contemplated by this Article II. If any FEI Stock Certificate shall have been lost, stolen or destroyed, Veeco may, in its reasonable discretion and as a condition precedent to the issuance of any certificate representing Veeco Shares hereunder, require the owner of such lost, stolen or destroyed FEI Stock Certificate to provide an appropriate affidavit and to deliver a bond (in such sum as Veeco may reasonably direct) as indemnity against any claim that may be made against the Exchange Agent, Veeco or the Surviving Corporation with respect to such FEI Stock Certificate.

(c) No dividends or other distributions declared or made with respect to Veeco Shares with a record date after the Effective Time shall be paid to the holder of any unsurrendered FEI Stock Certificate with respect to the Veeco Shares that such holder has the right to receive in the Merger until such holder surrenders such FEI Stock Certificate in accordance with this Section 2.08 (at which time such holder shall be entitled, subject to the effect of applicable escheat or similar Laws, to receive all such dividends and distributions, without interest).

(d) Any portion of the Exchange Fund that remains undistributed to holders of FEI Stock Certificates as of the date that is 180 days after the Effective Time shall be delivered to Veeco upon demand, and any holders of FEI Stock Certificates who have not theretofore surrendered their FEI Stock Certificates in accordance with this Section 2.08 shall thereafter look only to Veeco for satisfaction of their claims for Veeco Shares, cash in lieu of fractional Veeco Shares and any dividends or distributions with respect to Veeco Shares.

(e) Each of the Exchange Agent, Veeco and the Surviving Corporation shall be entitled to deduct and withhold from any consideration payable or otherwise deliverable pursuant to this Merger Agreement to any holder or former holder of FEI Common Stock such amounts as may be required to be deducted or withheld therefrom under the Code or any provision of state, local

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or foreign Tax Law or under any other applicable Law. To the extent such amounts are so deducted or withheld, such amounts shall be treated for all purposes under this Merger Agreement as having been paid to the Person to whom such amounts would otherwise have been paid.

(f) Neither Veeco nor the Surviving Corporation shall be liable to any holder or former holder of FEI Common Stock or to any other Person with respect to any Veeco Shares (or dividends or distributions with respect thereto), or for any cash amounts, delivered to any public official pursuant to any applicable abandoned property Law, escheat Law or similar Law.

2.09 Tax Consequences. For federal income tax purposes, the Merger is intended to constitute a reorganization within the meaning of Section 368 of the Code. The parties to this Merger Agreement hereby adopt this Merger Agreement as a "plan of reorganization" as described in Sections 1.368-2(g) and 1.368-3(a) of the United States Treasury Regulations.

2.10 Subsequent Action. If, at any time after the Effective Time, Veeco of the Surviving Corporation shall determine or be advised that any deeds, bills of sale, assignments, assurances and any other actions or things are necessary, desirable or proper to vest, perfect or confirm, of record or otherwise, in the Surviving Corporation its right, title or interest in, to or under any of the rights, or to otherwise carry out the purposes of Merger, the officers and directors of Veeco and the Surviving Corporation shall be authorized (in the name and on behalf of Acquisition, in the name and on behalf of FEI or otherwise) to execute and deliver, in the name and on behalf of the Constituent Corporations or otherwise, all such deeds, bills of sale, assignments and assurances and to take and do, in the name and on behalf of the Constituent Corporations or otherwise,

all such other actions and things as may be necessary or desirable to vest, perfect or confirm any and all right, title and and interest in, to and under such rights, properties or assets in the Surviving Corporation or otherwise to carry out the purposes of this Merger Agreement.

III. REPRESENTATIONS AND WARRANTIES OF FEI

FEI hereby represents and warrants to and covenants and agrees with Veeco and Acquisition that, except as set forth in the FEI Disclosure Schedule:

3.01 Corporate Organization.

(a) FEI is a corporation duly organized, validly existing and in good standing under the laws of the State of Oregon. FEI has the corporate power and authority to own or lease all of its properties and assets and to carry on its business as it is now being conducted, and is duly licensed or qualified to do business in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned or leased by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified would not, either individually or in the aggregate, have a Material Adverse Effect on FEI. True and complete copies of the Articles of Incorporation and By-Laws of FEI, as in effect as of the date of this Merger Agreement, have been filed by FEI as part of the FEI SEC Documents.

(b) Each Subsidiary of FEI (i) is duly organized and validly existing under the laws of its jurisdiction of organization, (ii) is duly qualified to do business and in good standing in all jurisdictions (whether federal, state or local or foreign) where its ownership or leasing of property or the conduct of its business requires it to be so qualified and (iii) has all requisite corporate power and authority to own or lease its properties and assets and to carry on its business as now conducted, in each case, except as would not have a Material Adverse Effect on FEI. Section 3.01(b) of the FEI Disclosure Schedule contains a complete and accurate list of each Subsidiary of FEI, indicating the jurisdiction of incorporation or organization of each such Subsidiary and FEI's percentage ownership interest therein (including each type of security held by FEI of each Subsidiary).

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3.02 Capitalization.

(a) The authorized capital stock of FEI consists of 45,000,000 shares of FEI Common Stock, of which 32,393,766 were issued and outstanding as of June 30, 2002, and 500,000 shares of preferred stock, none of which are outstanding. All of the outstanding shares of FEI Common Stock have been duly authorized and validly issued and are fully paid and nonassessable, are free of preemptive rights, with no personal liability attaching to the ownership thereof, and were issued in conformity with applicable Laws.

(b) As of June 30, 2002, 3,080,783 shares of FEI Common Stock (in the aggregate) were issuable upon the exercise of options previously granted, and 1,502,299 shares of FEI Common Stock (in the aggregate) were reserved for issuance upon the exercise of options available for grant, under FEI's stock option plans (collectively, the "FEI Options"), 3,533,926 shares of FEI Common Stock (in the aggregate) were issuable upon the conversion of FEI's outstanding \$175 million 5.5% Convertible Subordinated Notes due August 15, 2008 (the "FEI Convertible Debt") and 391,645 shares of FEI Common Stock (in the aggregate) were reserved for issuance under the FEI ESPP. Except as set forth above, there are no outstanding Equity Securities, or other obligations to issue or grant any rights to acquire any Equity Securities, of FEI or any Contracts to restructure or recapitalize FEI. Other than in connection with the FEI Convertible Debt, there are no outstanding Contracts of FEI or any Subsidiary of FEI to repurchase, redeem or otherwise acquire any Equity Securities of FEI or any Subsidiary of FEI. From December 31, 2001 to the date of this Merger Agreement, no shares of FEI capital stock have been issued except pursuant to the exercise of FEI Options, the FEI Convertible Debt or under the FEI ESPP. As of June 30, 2002, no shares of FEI capital stock were reserved for issuance, except for 1,893,944 shares of FEI Common Stock reserved for issuance upon exercise of FEI Options, the FEI Convertible Debt and under the FEI ESPP. FEI has no issued or outstanding Voting Debt.

(c) FEI owns, directly or indirectly, all of the issued and outstanding shares of capital stock or other equity ownership interests of each Subsidiary of FEI, free and clear of any Liens, and all of such shares or equity ownership interests are duly authorized and validly issued and are fully paid, non-assessable and free of preemptive rights, with no personal liability attaching to the ownership thereof. No Subsidiary of FEI has or is bound by any outstanding subscriptions, options, warrants, calls, commitments or agreements of any character calling for the purchase or issuance of any shares of capital stock or any other Equity Security of such Subsidiary or any securities representing the right to purchase or otherwise receive any shares of capital stock or any other equity security of such Subsidiary. Section 3.02(c) of the FEI Disclosure Schedule sets forth a list of each material investment of FEI in the equity (or any

security convertible or exchangeable into equity) of any Person other than its Subsidiaries.

3.03 Authorization. FEI has full corporate power and authority to execute, deliver and perform this Merger Agreement and the Articles of Merger, and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Merger Agreement, the Articles of Merger and all other documents and agreements to be delivered pursuant hereto and the consummation of the transactions contemplated hereby have been duly and validly authorized by the Board of Directors of FEI, and no other corporate proceedings on the part of FEI (other than the Required FEI Stockholder Vote and the filing of the Articles of Merger) are necessary to authorize this Merger Agreement, the Articles of Merger and any such related documents or agreements or to consummate the transactions contemplated hereby. This Merger Agreement has been duly and validly executed and delivered by FEI and the Articles of Merger, when executed at the Closing, will be duly and validly executed and delivered by FEI. This Merger Agreement, assuming the due authorization, execution and delivery by each of the other parties hereto, constitutes a legal, valid and binding agreement of FEI, enforceable in accordance with its terms, and the Articles of Merger, when executed by FEI at the Closing, assuming the due authorization, execution and delivery by each of the other

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parties thereto, will be legal, valid and binding agreements of FEI, enforceable in accordance with their respective terms except as may be limited by applicable bankruptcy, moratorium, insolvency, reorganization, fraudulent conveyance or other Laws affecting the enforcement of creditors' rights generally or by general equitable principles.

3.04 Reports. All FEI SEC Documents were filed as and when required by the Exchange Act or the Securities Act, as applicable. All documents required to be filed as exhibits to the FEI SEC Documents have been so filed. The FEI SEC Documents include all statements, reports and documents required to be filed by FEI pursuant to the Exchange Act and the Securities Act. The FEI SEC Documents comply in all material respects with the requirements of the Exchange Act and the Securities Act, as applicable, and none of the FEI SEC Documents, as of their respective filing dates, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances in which they were made, not misleading. None of FEI's Subsidiaries is required to file any statements, reports or documents with the SEC. The financial statements of FEI and its Subsidiaries, including the notes thereto, included in the FEI SEC Documents (the "FEI Financial Statements") complied in all material respects with applicable accounting requirements and with the published rules and regulations of the SEC with respect thereto as of their respective dates (except as may be indicated in the notes thereto or, in the case of unaudited statements included in Quarterly Reports on Form 10-Q, as permitted by Form 10-Q of the SEC). The FEI Financial Statements fairly present the consolidated financial condition, operating results and cash flows of FEI and its Subsidiaries at the dates and during the periods indicated therein in accordance with GAAP consistently applied (subject, in the case of unaudited statements, to normal year-end adjustments and additional footnote disclosures). There has been no material change in FEI's accounting policies except as described in the notes to the FEI Financial Statements. At all times since January 1, 1999, FEI has (i) filed as and when due all documents required to be filed with NASDAQ, and (ii) otherwise timely performed all of FEI's obligations pursuant to the rules and regulations of NASDAQ.

3.05 No Undisclosed Liabilities. The FEI Entities do not have any obligations or liabilities of any nature (whether matured or unmatured, absolute, accrued, fixed or contingent) other than those (i) set forth or adequately provided for in the Balance Sheet of FEI and its Subsidiaries included in FEI's Annual Report on Form 10-K for the year ended December 31, 2001 (the "FEI Balance Sheet"), (ii) not required to be set forth on the FEI Balance Sheet under GAAP consistently applied, (iii) incurred in the ordinary course of business since the FEI Balance Sheet Date, and consistent with past practice or (iv) which, individually or in the aggregate, would not have a Material Adverse Effect on FEI.

3.06 Compliance with Law: Governmental Authorizations.

(a) Each of the FEI Entities has complied with, is not in violation of, and has not received any notices of violation with respect to, any federal, state, local or foreign statute, Law or regulation with respect to the conduct of its business, or the ownership or operation of its business, except for such violations or failures to comply as could not be reasonably expected to have a Material Adverse Effect on FEI.

(b) Each of the FEI Entities has obtained each federal, state, county, local or foreign governmental Consent, approval, certificate, license, permit, grant, or other authorization of a Governmental Authority that is required for the operation of its business or the holding of any interest in its properties (collectively, the "FEI Authorizations"), and all of such FEI Authorizations are in full force and effect, except where the failure to obtain or have any of such FEI Authorizations could not reasonably be expected to have a Material Adverse Effect on FEI.

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3.07 No Conflicts.

(a) The execution, delivery and performance by FEI of this Merger Agreement and the consummation of the transactions contemplated hereby will not (i) violate any provision of the Articles of Incorporation or By-Laws or other organizational documents of FEI or any other FEI Entity, (ii) violate, or be in conflict with, or constitute a default (or an event which, with notice or lapse of time or both, would constitute a default) under, or result in or provide the basis for the termination of, or accelerate the performance required by, or excuse performance by any Person of any of its obligations under, or cause the acceleration of the maturity, or trigger any repurchase obligation, of any debt or obligation pursuant to, or result in the creation or imposition of any Lien upon any property or assets of FEI or any other FEI Entity under, any material Contract to which FEI or any other FEI Entity is a party or by which any of their respective properties or assets are bound, or to which any of the property or assets of FEI or any other FEI Entity are subject, except for Contracts wherein the other party thereto has consented to the consummation of the Merger or irrevocably waived in writing its right to take any action contemplated in this clause (ii), (iii) violate any Law applicable to FEI or any other FEI Entity or (iv) violate or result in the revocation or suspension of any material license, permit, certificate, Consent or approval from a Governmental Authority that is necessary for the business and operations of FEI or any other FEI Entity.

(b) No filing or registration with, or permit, authorization, Consent or approval of, or notification or disclosure to, any Governmental Authority is required by FEI or any other FEI Entity in connection with the execution and delivery of this Merger Agreement or the consummation of the Merger and the other transactions contemplated hereby, except (i) in connection with the applicable requirements of the HSR Act or any other Regulatory Law and any other applicable anti-trust or competition approvals, (ii) in connection with the provisions of the Securities Act and the rules and regulations promulgated thereunder, and the Exchange Act and the rules and regulations promulgated thereunder, (iii) the filing of appropriate merger documents as required by the DGCL and OBCA, (iv) Consents, filings or exemptions in connection with compliance with the rules of NASDAQ, (v) such Consents, orders, registrations, declarations and filings as may be required under the laws of various states or (vi) such other Consents, filings and registrations the failure of which to obtain would not reasonably be expected to have a Material Adverse Effect on FEI.

3.08 Contracts.

(a) Neither FEI nor any of its Subsidiaries is a party to or is bound by any written contract, arrangement or commitment (i) with respect to the employment of any directors, officers or employees other than in the ordinary course of business consistent with past practice, (ii) which, upon the consummation or stockholder approval of the transactions contemplated by this Merger Agreement, will (either alone or upon the occurrence of any additional acts or events) result in any payment (whether of severance pay or otherwise) becoming due from FEI, Veeco, the Surviving Corporation or any of their respective Subsidiaries to any officer or employee thereof, (iii) which is a "material contract" (as such term is defined in Item 601(b)(10) of Regulation S-K of the SEC) to be performed, entirely or in part, after the date of this Merger Agreement, but which has not been previously filed with the SEC, (iv) which are of the type required to be disclosed under Item 404 of Regulation S-K of the SEC, but which has not been previously filed with the SEC, (v) which materially restricts the conduct of any line of business by FEI or any Subsidiary thereof or, upon consummation of the Merger, will materially restrict the ability of Veeco or the Surviving Corporation or any Subsidiary thereof to engage in any proposed line of business or (vi) which, upon the consummation or stockholder approval of the transactions contemplated by this Merger Agreement, will result in any of the Veeco Entities or any of the FEI Entities, granting any rights or licenses to any material Intellectual Property of any of the Veeco

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Entities or any of the FEI Entities, to any third party. Each contract, arrangement, commitment or understanding of the type described in this Section 3.08(a), whether or not set forth in the FEI Disclosure Schedule, is referred to herein as a "FEI Contract".

(b) (i) Each FEI Contract is valid and binding on FEI and any of its Subsidiaries that is a party thereto, as applicable, and is in full force and effect (except to the extent such contract has expired or terminated according to its terms), (ii) FEI and each of its Subsidiaries has in all material respects performed all obligations required to be performed by it to date under each FEI Contract, except where such noncompliance, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on FEI, and (iii) neither FEI nor any of its Subsidiaries, knows of, or has received notice of, the existence of any event or condition which constitutes, or, after notice or lapse of time or both, will constitute, a material default on the part of FEI or any of its Subsidiaries under any such FEI Contract, except where such default, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on FEI.

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3.09 Litigation. Except as disclosed in the FEI SEC Documents prior to the date hereof, (i) there is no private or governmental action, suit, proceeding, claim, arbitration or investigation pending before any agency, court or tribunal, foreign or domestic, or, to the knowledge of FEI, Threatened against FEI or any other FEI Entity or any of their respective properties or any of their respective officers or directors (in their capacities as such) that, individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect on FEI, and (ii) there is no judgment, decree or order against FEI or any other FEI Entity or, to the knowledge of FEI, any of their respective directors or officers (in their capacities as such) that could prevent, enjoin, alter or materially delay any of the transactions contemplated by this Merger Agreement, or that could reasonably be expected to have a Material Adverse Effect on FEI.

3.10 Taxes. FEI and each of the FEI Entities has filed or caused to be filed on a timely basis all Tax Returns that are or were required to be filed by FEI and/or any of the other FEI Entities, either separately or as part of an affiliated group of corporations, pursuant to the Laws of any Governmental Authority with taxing power over any of the FEI Entities or its assets and business. All Tax Returns filed by any of the FEI Entities are true, correct and complete. FEI and each of the FEI Entities has paid all Taxes that have become due by it pursuant to those Tax Returns or pursuant to any assessment received by any of the FEI Entities, except such Taxes, if any, as are being contested in good faith and as to which adequate reserves have been provided in the FEI Financial Statements. All Taxes that FEI or any of the FEI Entities is, or was, required by Law to withhold and collect have been duly withheld and collected and, to the extent required, have been paid to the appropriate Governmental Authority. There is no agreement, plan, arrangement or other contract covering any employee or independent contractor of FEI or any of the FEI Entities that would give rise to the payment of any amount that would not be deductible by Veeco or any of the Veeco Entities or the Surviving Corporation pursuant to Section 280G or Section 162(m) of the Code. FEI is not a "United States real property holding corporation," as defined in Section 897(c)(2) of the Code. The charges, accruals and reserves with respect to Taxes on the FEI Financial Statements with respect to each of the FEI Entities (excluding any provision for deferred income taxes established to reflect timing differences between book and tax income) for all tax periods (or portions thereof) ending on or before the Closing Date (including any period for which no Tax Return has yet been filed) are adequate.

3.11 Absence of Certain Changes. Except as disclosed in or filed as an exhibit to the FEI SEC Documents prior to the date hereof, since December 31, 2001 (the "FEI Balance Sheet Date"), the FEI Entities have conducted their business in the ordinary course consistent with past practice and there has not occurred: (i) any change, event or condition (whether or not covered by insurance) that has resulted in, or might reasonably be expected to result in, a Material Adverse Effect to FEI; (ii) any acquisition, sale or transfer of any material asset of the FEI Entities other than in the ordinary course

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of business and consistent with past practice; (iii) any change in accounting methods or practices (including any change in depreciation or amortization policies or rates) by FEI or any revaluation by FEI of any of its assets; (iv) any declaration, setting aside, or payment of a dividend or other distribution with respect to the shares of FEI Common Stock or any other FEI Equity Securities (excluding interest payments on the FEI Convertible Debt contemplated by the Indenture relating thereto), or any direct or indirect redemption, purchase or other acquisition by FEI of any of its shares of capital stock; (v) any material Contract entered into by any FEI Entity, other than in the ordinary course of business, or any material amendment or termination of, or default under, any material Contract to which any FEI Entity is a party or by which any of them is bound; or (vi) any agreement by any FEI Entity to do any of the things described in the preceding clauses (i) through (v) (other than negotiations with Veeco and its Representatives regarding the transactions contemplated by this Merger Agreement).

3.12 Employee Benefit Plans; Labor Matters.

(a) There does not now exist any and, to the knowledge of FEI, there are no existing circumstances that could reasonably be expected to result in, any Controlled Group Liability to FEI or any of its Subsidiaries that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect on FEI. No FEI Benefit Plan is (i) a "multiemployer plan" within the meaning of Section 4001(a)(3) of ERISA, (ii) a "multiple employer plan" as defined in ERISA or the Code, or (iii) a "funded welfare plan" within the meaning of Section 419 of the Code. None of the FEI Benefit Plans provides for any welfare or other non-pension benefits to retired or former employees, except to the extent required by the continuation coverage requirements of Section 601 et. seq. of ERISA, Section 4980B of the Code or similar state law.

(b) Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect on FEI, (i) each of the FEI Benefit Plans has been operated and administered in all material respects in accordance with applicable law and administrative rules and regulations of any Governmental Authority, including, but not limited to, ERISA and the Code, and (ii) there are no pending or, to the knowledge of FEI, Threatened claims (other than claims for benefits in the ordinary course), lawsuits or arbitrations that have been asserted or instituted, and, to the knowledge of FEI, no set of circumstances exists, that may reasonably give rise to a claim or lawsuit, against the FEI Benefit Plans, any fiduciaries thereof with respect to their duties to the FEI Benefit Plans or the assets of any of the trusts under any of the FEI Benefit Plans that could reasonably be expected to result in any material liability of FEI or any of its Subsidiaries to the PBGC, the U.S. Department of the Treasury, the U.S. Department of Labor, any FEI

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Benefit Plan, any participant in a FEI Benefit Plan, or any other party. There are no unpaid contributions due prior to the date hereof with respect to any FEI Benefit Plan that are required to have been made under its terms and provisions, any related insurance contract or any applicable law.

(c) Neither FEI nor any Subsidiary of FEI is a party to any collective bargaining or other labor union contract applicable to individuals employed by FEI or any Subsidiary of FEI, and no collective bargaining agreement or other labor union contract is being negotiated by FEI or any Subsidiary of FEI. Except as would not reasonably be expected to have a Material Adverse Effect on FEI, (i) there is no labor dispute, strike, slowdown or work stoppage against FEI or any Subsidiary of FEI pending or, to the knowledge of FEI, Threatened against FEI or any Subsidiary of FEI and (ii) no unfair labor practice or labor charge or complaint has occurred with respect to FEI or any Subsidiary of FEI.

(d) Neither the execution and delivery of this Merger Agreement nor the consummation of the transactions contemplated hereby (either alone or in conjunction with any other event) will (i) result in any payment or benefit (including, without limitation, option acceleration, severance,

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unemployment compensation, "excess parachute payment" (within the meaning of Section 280G of the Code), forgiveness of indebtedness or otherwise) becoming due to any director, consultant or any current or former employee of FEI or any Subsidiaries of FEI under any FEI consultant Benefit Plan or otherwise; (ii) increase any benefits otherwise payable under any FEI Benefit Plan; (iii) result in any acceleration of the time of payment or vesting of any such benefits; (iv) require the funding of any trust or other funding vehicle; or (v) limit or prohibit the ability to amend, merge, terminate or receive a reversion of assets from any FEI Benefit Plan or related trust.

(e) There has been no disallowance of a deduction, or reasonable expectation of a disallowance of a deduction, under Section 162(m) of the Code for employee compensation of any amount paid or payable by FEI or any Subsidiary of FEI that, either individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect on FEI.

(f) Section 3.12(f) of the FEI Disclosure Schedule sets forth a list of each material FEI Benefit Plan.

(g) FEI has heretofore made available to Veeco true and complete copies of each of the FEI Benefit Plans (and all related trust agreements, insurance contracts and other ancillary documents) and, to the extent applicable, (i) the actuarial report for such FEI Benefit Plan for each of the last two years, (ii) the most recent determination letter from the IRS for such FEI Benefit Plan, (iii) the summary plan description for such FEI Benefit Plan, and (iv) the Form 5500 for such FEI Benefit Plan for each of the last two years, and all schedules thereto. Since the date of the documents made available, there has not been any material change in the assets or liabilities of any of the FEI Benefit Plans or any change in their terms and operations that could reasonably be expected to affect or alter the tax status or materially affect the cost of maintaining such Plan, and none of the FEI Benefit Plans has been or will be amended prior to the Closing Date to the extent such amendment will materially affect the cost of maintaining such Plans. Each of the FEI Benefit Plans can be amended, modified or terminated by FEI or a Subsidiary of FEI within a period of 30 days, without payment of any additional compensation or amount or the additional vesting or acceleration of any such benefits, except to the extent that such vesting is required under the Code upon the complete or partial termination of any FEI Benefit Plan intended to be qualified within the meaning of Section 401(a) of the Code.

(h) Each FEI Benefit Plan that is intended to be qualified under Section 401 of the Code has received a favorable determination letter from the IRS as to the qualification of such plan (or is a prototype plan entitled to rely on a favorable determination, opinion or advisory letter issued to the prototype sponsor), or has remaining a period of time under applicable Treasury regulations or IRS pronouncements in which to receive such a determination. For each FEI Benefit Plan that has received such a determination, such letter has not been modified, revoked or limited by the failure to satisfy any condition thereof or by a subsequent amendment thereto, or failure to amend such FEI Benefit Plan.

(i) Except as, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on FEI, no individual who has been classified by FEI as a non-employee (such as an independent contractor, leased employee or consultant) would reasonably be expected to have a claim against FEI for eligibility to participate in any FEI Benefit Plan, if such individual is later reclassified as a FEI employee.

(j) Except as, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on FEI, all FEI Benefit Plans subject to the laws of any jurisdiction outside of the United States (i) have been maintained in accordance with all applicable requirements, (ii) if they are intended to qualify for special tax treatment meet all requirements for such treatment, and (iii) if they are intended to be funded and/or book-reserved are fully funded and/or book reserved, as appropriate, based upon reasonable actuarial assumptions.

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3.13 Intellectual Property Rights.

(a) FEI and its Subsidiaries own, or are licensed to use, all FEI Intellectual Property. To the knowledge of FEI, the business and operations of FEI and its Subsidiaries as they are currently conducted do not infringe on the rights of any third party where such infringement, individually or in the aggregate, would be reasonably expected to have a Material Adverse Effect on any Material FEI Entity or any material business or product offering of FEI or any of its Subsidiaries, and, to the extent material FEI Intellectual Property is licensed from a third party, FEI's use of such Intellectual Property is in accordance in all material respects with the applicable license pursuant to which FEI acquired the right to use such Intellectual Property. To the knowledge of FEI, no third party is challenging, infringing on or otherwise violating any right of FEI in the FEI Intellectual Property where such infringement, individually or in the aggregate, would be reasonably expected to have a Material Adverse Effect on any Material FEI Entity or any material business or product offering of FEI or any of its Subsidiaries. Neither FEI nor any of its Subsidiaries has received any written notice of any pending claim, order or proceeding with respect to any material FEI Intellectual Property, nor has FEI received any written demand from any other party to cease and desist from infringement of such other party's Intellectual Property. To the knowledge of FEI, no material Intellectual Property owned or licensed by FEI is being used or enforced by FEI or its Subsidiaries in a manner that would reasonably be expected to result in the abandonment, estoppel, cancellation or unenforceability of such Intellectual Property.

(b) The execution, delivery and performance of this Agreement by FEI and the consummation by FEI of the transactions contemplated hereby will not (i) constitute a breach by FEI or its Subsidiaries of any material instrument or agreement governing any FEI Intellectual Property, (ii) pursuant to the terms of any material license or agreement relating to any FEI Intellectual Property, cause the material modification of any terms of any such license or agreement, including but not limited to the modification of the effective rate of any royalties or other payments provided for in any such license or agreement, (iii) cause the forfeiture or termination of any FEI Intellectual Property under the terms thereof, (iv) give rise to a right of forfeiture or termination of any FEI Intellectual Property under the terms thereof or (v) impair the right of FEI, its Subsidiaries or, to FEI's knowledge, Veeco to make, have made, offer for sale, use, sell, export or license any products or processes used by FEI, its Subsidiaries or, to FEI's knowledge, Veeco in the conduct of their business as it is currently configured, except in each case for those matters that individually or in the aggregate would not reasonably be expected to have a Material Adverse Effect on FEI.

(c) Each item of material FEI Intellectual Property owned by FEI or a Subsidiary thereof (the "FEI-Owned IP") (i) is free and clear of any Liens or filings required under the Uniform Commercial Code in effect in any jurisdiction; (ii) is not subject to any outstanding judicial order, decree, judgment or stipulation or to any agreement materially restricting the scope of FEI's or such Subsidiary's use thereof; and (iii) together with each item of material FEI Intellectual Property which FEI or such Subsidiary has a right to use or practice pursuant to one or more license or similar agreements, is not subject to any suits, actions, written claims or demands of any third party and no action or proceeding, whether judicial, administrative, has been instituted, is pending or, to FEI's knowledge, Threatened, which challenges or affects the rights of FEI or such Subsidiary in the same manner.

(d) Neither FEI nor any Subsidiary thereof has entered into any agreement to indemnify any third party against any claim of infringement, misappropriation or other violation of FEI Intellectual Property rights other than indemnification provisions contained in purchase orders, customer agreements or similar agreements arising in the ordinary course of business.

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(e) To the knowledge of FEI and its Subsidiaries, (a) all rights in all inventions and discoveries made, developed or conceived by any current or former officer, employee, independent contractor, consultant or any other agent of FEI or any Subsidiary thereof during the course of their employment (or other retention) by FEI or a Subsidiary thereof and material to the business of FEI or a Subsidiary

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thereof and which are the subject of one or more issued letters patent or applications for letters patent have been assigned in writing to FEI or a Subsidiary thereof; and (b) the policy of FEI or a Subsidiary thereof requires each employee of FEI or a Subsidiary thereof to sign documents confirming that he or she assign to FEI or a Subsidiary thereof all Intellectual Property rights made, written, developed or conceived by him or her during the course of his or her employment (or other retention) by FEI or a Subsidiary thereof and relating to the business of FEI or a Subsidiary thereof to the extent that ownership of any such Intellectual Property rights does not vest in FEI or a Subsidiary thereof by operation of Law.

(f) FEI believes that FEI and its Subsidiaries have taken reasonable and practicable steps to protect and preserve the confidentiality of any material FEI Intellectual Property that it wishes to remain confidential ("FEI Confidential IP Information"). FEI believes that all use by FEI and its Subsidiaries of FEI Confidential IP Information not owned by FEI and its Subsidiaries has been and is pursuant to the terms of a written agreement between FEI or a Subsidiary thereof and the owner of such Confidential Information, or is otherwise lawful.

3.14 Absence of Liens; Title to Property.

(a) For purposes of this Agreement, "FEI Real Property" means all interests in real property including, fee estates, leaseholds and subleaseholds, purchase options, easements, licenses, privileges, hereditaments, appurtenances, rights to access and rights of way, and all fixtures, buildings, structures and other improvements thereon, owned or used by FEI, together with any additions thereto or replacements thereof.

(b) Section 3.14(b) of the Disclosure Schedule contains the true and correct street address of all FEI Real Property owned by FEI (the "FEI Owned Real Property") and contains the true and correct street address of all FEI Real Property leased by FEI and exceeding 10,000 square feet of leased area, excluding, however, any FEI Owned Real Property or leased FEI Real Property identified in FEI's financial statements or the FEI SEC Documents (the "FEI Leased Real Property"). There is no other material real property that is owned or leased by FEI or used in or necessary for the conduct of business as presently conducted.

(c) Except as would not reasonably be expected to have a Material Adverse Effect on FEI, all leases for material FEI Leased Real Property (the "FEI Leases") are in good standing, valid and effective in accordance with their respective terms, and neither FEI nor any of its Subsidiaries, nor to FEI's knowledge, any other party to a FEI Lease, is in material breach, violation or default under, and neither FEI nor any of its Subsidiaries has received written notice that it has breached, violated or defaulted under, any of the terms or conditions of any FEI Lease. FEI has provided Veeco with true, complete and correct copies of each FEI Lease.

(d) Except as would not reasonably be expected to have a Material Adverse Effect on FEI, the FEI Real Property and all present uses and operations of the FEI Real Property comply with all applicable Laws, Court Orders, Governmental Permits, restrictions of any Governmental Body having jurisdiction over any portion of the FEI Real Property (including, those relating to zoning, land use, safety, health, employment and employment practices and access by the handicapped), covenants, conditions, restrictions, easements, disposition agreements and similar matters affecting the FEI Real Property. Except as would not reasonably be expected to have a Material Adverse Effect on FEI, FEI has obtained all approvals of any Governmental Body (including, certificates of use and occupancy, licenses and permits) required in connection with the construction, ownership, use, and occupation of the FEI Real Property and operation of its business.

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(e) FEI and each of its Subsidiaries has good and valid title to, or, in the case of leased assets, valid leasehold interests in, all of its material tangible assets used in its business, free and clear of any Liens, except (i) Liens reflected in the FEI Financial Statements or the FEI SEC Documents; (ii) Liens for Taxes not yet due and payable; and (iii) Liens which are not material to FEI and its Subsidiaries taken as a whole.

3.15 Environmental Matters.

Except as disclosed in the FEI SEC Documents:

(a) The FEI Entities have conducted all Hazardous Substance Activities relating to the business in compliance in all material respects with all applicable Environmental Laws. The Hazardous Substance Activities of the FEI Entities prior to the Closing have not resulted in the exposure of any person to a Hazardous Substance in a manner which could reasonably be expected to result in a Material Adverse Effect on FEI. The FEI Entities have obtained all material permits, licenses and approvals necessary or required

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under all applicable Environmental Laws for the ownership and operation of their business ("Environmental Permits"). All such Environmental Permits are valid and in full force and effect. The FEI Entities have not received written notice of any action to revoke or modify any of such Environmental Permits, and, to FEI's knowledge, the ownership and operation of the FEI Entities' business is and has been in material compliance with all terms and conditions thereof. The FEI Entities have not received notice of any pending or Threatened claim by any Governmental Authority or any other Person concerning potential liability of any of the FEI Entities under Environmental Laws in connection with the ownership or operation of its business. Except in compliance with Environmental Laws and in a manner that could not reasonably be expected to subject the FEI Entities to material liability, to the knowledge of the FEI Entities, no Hazardous Substances are present on any real property currently owned, operated, occupied, controlled or leased by the FEI Entities or were present on any other real property at the time it ceased to be owned, operated, occupied, controlled or leased by the FEI Entities.

(b) The FEI Entities have made all disclosures, including notice of a Release or Threatened Release of a Hazardous Substance, required of any FEI Entity under any Environmental Law.

(c) No FEI Entity has received written notice, or otherwise obtained knowledge, of the existence of any circumstances or conditions that would reasonably be expected to result in any material environmental liability.

(d) No FEI Entity has received written notice or otherwise obtained knowledge of any material liability with respect to any Hazardous Substance, which it has transported or arranged for the transportation of to premises not owned or operated by any FEI Entity.

3.16 **Brokers and Finders.** Except for Credit Suisse First Boston ("**FEI's Broker**"), no broker, finder, agent or similar intermediary has acted on FEI's behalf in connection with this Merger Agreement or the transactions contemplated hereby, and there are no brokerage commissions, finders' fees or similar fees or commissions payable in connection therewith based on any Contract with FEI or any action taken by FEI. FEI shall pay all fees and disbursements of FEI's Broker.

3.17 **Reorganization.** Neither FEI nor any of its Subsidiaries has taken any action or has knowledge of any fact or circumstance that would reasonably be expected to cause the Merger to fail to qualify as a reorganization within the meaning of Section 368(a) of the Code.

3.18 **Board Approval.** The Board of Directors of FEI has unanimously (i) determined that the Merger is advisable, consistent with and in the furtherance of the long-term business strategy of FEI and fair to, and in the best interests of, FEI and its stockholders, (ii) approved this Merger Agreement, the Merger and the other transactions contemplated by this Merger Agreement and (iii) determined to recommend approval of the Merger by the stockholders of FEI.

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3.19 **Opinion of FEI's Broker.** The Board of Directors of FEI has received the opinion of FEI's Broker, dated the date of this Agreement, to the effect that, as of such date, the Exchange Ratio was fair, from a financial point of view, to the stockholders of FEI (other than Philips and its Affiliates).

3.20 **Restrictions on Business Activities.** There is no material agreement, judgment, injunction, order or decree binding upon FEI or any of its Subsidiaries which has or, to its knowledge, reasonably could be expected to have the effect of prohibiting or materially impairing any current or proposed future business practice of FEI or any of its Subsidiaries, any proposed acquisition of property by FEI or any of its Subsidiaries or the conduct of business by FEI or any of its Subsidiaries as currently conducted or as proposed to be conducted by FEI or any of its Subsidiaries.

3.21 **State Anti-takeover Statutes.** FEI has granted all approvals and taken all other steps necessary to exempt the FEI Stockholder Voting Agreements, the Merger and the other transactions contemplated hereby from the requirements and provisions of Section 835 of the OBCA and other state anti-takeover statutes or regulations to the extent applicable such that none of the provisions of such "business combination," "moratorium," "control share," or other state anti-takeover statute or regulation (a) applies to this Merger Agreement or any of the transactions contemplated hereby, (b) prohibits or restricts FEI's ability to perform its obligations under this Merger Agreement or its ability to consummate the Merger and the other transactions contemplated hereby, (c) would have the effect of invalidating or voiding this Merger Agreement or any provisions hereof or (d) would subject FEI to any material impediment or condition in connection with the exercise of any of its rights under this Merger Agreement.

3.22 **Ownership of Veeco Stock.** As of the date of this Merger Agreement, neither FEI nor any of its Subsidiaries own any Veeco Shares.

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3.23 Form S-4 Registration Statement; Joint Proxy Statement. None of the information to be supplied by FEI or its Subsidiaries in (i) the Form S-4 Registration Statement will, at the time it becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading and (ii) the Joint Proxy Statement will, on the date of the mailing of the Joint Proxy Statement and any amendments or supplements thereto, at the time of each of the FEI Stockholders' Meeting and the Veeco Stockholders' Meeting, and at the Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not false or misleading, or omit to state any material fact necessary to correct any statement in any earlier communication with respect to the solicitation of proxies for the FEI Stockholders Meeting or the Veeco Stockholders Meeting, which has become false or misleading. The Joint Proxy Statement will comply, as of its mailing date, as to form in all material respects with all applicable Laws, including the provisions of the Exchange Act, except that no representation is made by FEI with respect to information supplied by Veeco or Acquisition for inclusion therein.

IV. REPRESENTATIONS AND WARRANTIES OF VEECO AND ACQUISITION

Veeco and Acquisition, jointly and severally, hereby represent and warrant to and covenant and agree with FEI that, except as set forth in the Veeco Disclosure Schedule:

4.01 Corporate Organization.

(a) Veeco is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware. Veeco has the corporate power and authority to own or lease all of its properties and assets and to carry on its business as it is now being conducted, and is duly licensed or qualified to do business in each jurisdiction in which the nature of the business conducted by it or the character or location of the properties and assets owned or leased by it makes such licensing or qualification necessary, except where the failure to be so licensed or qualified would

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not, either individually or in the aggregate, have a Material Adverse Effect on Veeco. True and complete copies of the Certificate of Incorporation and By-Laws of Veeco, as in effect as of the date of this Merger Agreement, have been filed by Veeco as part of the Veeco SEC Documents.

(b) Each Subsidiary of Veeco (i) is duly organized and validly existing under the laws of its jurisdiction of organization, (ii) is duly qualified to do business and in good standing in all jurisdictions (whether federal, state or local or foreign) where its ownership or leasing of property or the conduct of its business requires it to be so qualified and (iii) has all requisite corporate power and authority to own or lease its properties and assets and to carry on its business as now conducted, in each case, except as would not have a Material Adverse Effect on Veeco. Section 4.01(b) of the Veeco Disclosure Schedule contains a complete and accurate list of each Subsidiary of Veeco, indicating the jurisdiction of incorporation or organization of each such Subsidiary and Veeco's percentage ownership interest therein (including each type of security held by Veeco of each Subsidiary).

(c) Acquisition is a wholly owned Subsidiary of Veeco and has conducted and will conduct no business or activity, nor has incurred or will incur any liability or obligation, other than hereunder or in accordance with the Merger.

4.02 Capitalization.

(a) The authorized capital stock of Veeco consists of 60,000,000 Veeco Shares, of which 29,134,679 were issued and outstanding as of June 30, 2002, and 500,000 shares of preferred stock, none of which are outstanding. All of the outstanding Veeco Shares have been duly authorized and validly issued and are fully paid and nonassessable, are free of preemptive rights, with no personal liability attaching to the ownership thereof, and were issued in conformity with applicable Laws.

(b) As of June 30, 2002, 6,122,330 Veeco Shares (in the aggregate) were issuable upon the exercise of options previously granted, and 878,286 Veeco Shares (in the aggregate) were reserved for issuance upon the exercise of options available for grant, under Veeco's stock option plans (collectively, the "Veeco Options"), 5,712,802 Veeco Shares (in the aggregate) were issuable upon the conversion of Veeco's outstanding \$220 million 4.125% Convertible Subordinated Notes due December 21, 2008 (the "Veeco Convertible Debt") and 78,155 shares of Veeco Shares (in the aggregate) were reserved for issuance under the Veeco ESPP. Except as set forth above, there are no outstanding Equity Securities, or other obligations to issue or grant any rights to acquire any Equity Securities, of Veeco, or any Contracts to restructure or recapitalize Veeco. Other than in connection with the Veeco Convertible Debt, there are no outstanding Contracts of Veeco or any Subsidiary of Veeco to repurchase, redeem or otherwise acquire any Equity Securities of Veeco or any Subsidiary of Veeco. From December 31, 2001 to the date of this Merger Agreement, no shares of Veeco

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capital stock have been issued except pursuant to the exercise of Veeco Options, the Veeco Convertible Debt and under the Veeco ESPP. As of June 30, 2002, no shares of Veeco capital stock were reserved for issuance, except for 7,000,616 Veeco Shares reserved for issuance upon exercise of Veeco Options, the Veeco Convertible Debt and under the Veeco ESPP. Veeco has no issued or outstanding Voting Debt.

(c) Veeco owns, directly or indirectly, all of the issued and outstanding shares of capital stock or other equity ownership interests of each Subsidiary of Veeco, free and clear of any Liens, and all of such shares or equity ownership interests are duly authorized and validly issued and are fully paid, non-assessable and free of preemptive rights, with no personal liability attaching to the ownership thereof. No Subsidiary of Veeco has or is bound by any outstanding subscriptions, options, warrants, calls, commitments or agreements of any character calling for the purchase or issuance of any shares of capital stock or any other Equity Security of such Subsidiary or any securities representing the right to purchase or otherwise receive any shares of capital stock or any other equity security of such Subsidiary. Section 4.02(c) of the Veeco Disclosure Schedule sets

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forth a list of each material investment of Veeco in the equity (or any security convertible or exchangeable into equity) of any Person other than its Subsidiaries.

4.03 Authorization. Veeco has full corporate power and authority to execute, deliver and perform this Merger Agreement and the Articles of Merger, and to consummate the transactions contemplated hereby and thereby. The execution, delivery and performance of this Merger Agreement, the Articles of Merger and all other documents and agreements to be delivered pursuant hereto and the consummation of the transactions contemplated hereby have been duly and validly authorized by the Board of Directors of Veeco, and no other corporate proceedings on the part of Veeco (other than the Required Veeco Stockholder Vote and the filing of the Articles of Merger) are necessary to authorize this Merger Agreement, the Articles of Merger and any such related documents or agreements or to consummate the transactions contemplated hereby. This Merger Agreement has been duly and validly executed and delivered by Veeco and the Articles of Merger, when executed at the Closing, will be duly and validly executed and delivered by Veeco. This Merger Agreement, assuming the due authorization, execution and delivery by each of the other parties hereto, constitutes a legal, valid and binding agreement of Veeco, enforceable in accordance with its terms, and the Articles of Merger, when executed by Veeco at the Closing, assuming the due authorization, execution and delivery by each of the other parties thereto, will be legal, valid and binding agreements of Veeco, enforceable in accordance with their respective terms except as may be limited by applicable bankruptcy, moratorium, insolvency, reorganization, fraudulent conveyance or other Laws affecting the enforcement of creditors' rights generally or by general equitable principles.

4.04 Reports. All Veeco SEC Documents were filed as and when required by the Exchange Act or the Securities Act, as applicable. All documents required to be filed as exhibits to the Veeco SEC Documents have been so filed. The Veeco SEC Documents include all statements, reports and documents required to be filed by Veeco pursuant to the Exchange Act and the Securities Act. The Veeco SEC Documents comply in all material respects with the requirements of the Exchange Act and the Securities Act, as applicable, and none of the Veeco SEC Documents, as of their respective filing dates, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances in which they were made, not misleading. None of Veeco's Subsidiaries is required to file any statements, reports or documents with the SEC. The financial statements of Veeco and its Subsidiaries, including the notes thereto, included in the Veeco SEC Documents (the "Veeco Financial Statements") complied in all material respects with applicable accounting requirements and with the published rules and regulations of the SEC with respect thereto as of their respective dates (except as may be indicated in the notes thereto or, in the case of unaudited statements included in Quarterly Reports on Form 10-Q, as permitted by Form 10-Q of the SEC). The Veeco Financial Statements fairly present the consolidated financial condition, operating results and cash flows of Veeco and its Subsidiaries at the dates and during the periods indicated therein in accordance with GAAP consistently applied (subject, in the case of unaudited statements, to normal year-end adjustments and additional footnote disclosures). There has been no material change in Veeco's accounting policies except as described in the notes to the Veeco Financial Statements. At all times since January 1, 1999, Veeco has (i) filed as and when due all documents required to be filed with NASDAQ, and (ii) otherwise timely performed all of Veeco's obligations pursuant to the rules and regulations of NASDAQ.

4.05 No Undisclosed Liabilities. The Veeco Entities do not have any obligations or liabilities of any nature (whether matured or unmatured, absolute, accrued, fixed or contingent) other than those (i) set forth or adequately provided for in the Balance Sheet of Veeco and its Subsidiaries included in Veeco's Annual Report on Form 10-K for the year ended December 31, 2001 (the "Veeco Balance Sheet"), (ii) not required to be set forth on the Veeco Balance Sheet under GAAP consistently applied, (iii) incurred in the ordinary course of business since the Veeco Balance Sheet Date and consistent with

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past practice or (iv) which, individually or in the aggregate, would not have a Material Adverse Effect on Veeco.

4.06 Compliance with Law: Governmental Authorizations.

(a) Each of the Veeco Entities has complied with, is not in violation of, and has not received any notices of violation with respect to, any federal, state, local or foreign statute, Law or regulation with respect to the conduct of its business, or the ownership or operation of its business, except for such violations or failures to comply as could not be reasonably expected to have a Material Adverse Effect on Veeco.

(b) Each of the Veeco Entities has obtained each federal, state, county, local or foreign governmental Consent, approval, certificate, license, permit, grant, or other authorization of a Governmental Authority that is required for the operation of its business or the holding of any interest in its properties (collectively, the "Veeco Authorizations"), and all of such Veeco Authorizations are in full force and effect, except where the failure to obtain or have any of such Veeco Authorizations could not reasonably be expected to have a Material Adverse Effect on Veeco.

4.07 No Conflicts.

(a) The execution, delivery and performance by Veeco and Acquisition of this Merger Agreement and the consummation of the transactions contemplated hereby will not (i) violate any provision of the Certificate of Incorporation or By-Laws or other organizational documents of Veeco or Acquisition or any other Veeco Entity, (ii) violate, or be in conflict with, or constitute a default (or an event which, with notice or lapse of time or both, would constitute a default) under, or result in or provide the basis for the termination of, or accelerate the performance required by, or excuse performance by any Person of any of its obligations under, or cause the acceleration of the maturity, or trigger any repurchase obligation, of any debt or obligation pursuant to, or result in the creation or imposition of any Lien upon any property or assets of Veeco or Acquisition or any other Veeco Entity under, any material Contract to which Veeco or Acquisition or any other Veeco Entity is a party or by which any of their respective properties or assets are bound, or to which any of the property or assets of Veeco or Acquisition or any other Veeco Entity are subject, except for Contracts wherein the other party thereto has consented to the consummation of the Merger or irrevocably waived in writing its right to take any action contemplated in this clause (ii), (iii) violate any Law applicable to Veeco or Acquisition or any other Veeco Entity or (iv) violate or result in the revocation or suspension of any material license, permit, certificate, Consent or approval from a Governmental Authority that is necessary for the business and operations of Veeco or Acquisition or any other Veeco Entity.

(b) No filing or registration with, or permit, authorization, Consent or approval of, or notification or disclosure to, any Governmental Authority is required by Veeco or Acquisition or any other Veeco Entity in connection with the execution and delivery of this Merger Agreement or the consummation of the Merger and the other transactions contemplated hereby, except (i) in connection with the applicable requirements of the HSR Act or any other Regulatory Law and any other applicable anti-trust or competition approvals, (ii) in connection with the provisions of the Securities Act and the rules and regulations promulgated thereunder, and the Exchange Act and the rules and regulations promulgated thereunder, (iii) the filing of appropriate merger documents as required by the DGCL and OBCA, (iv) Consents, filings or exemptions in connection with compliance with the rules of NASDAQ, (v) such Consents, orders, registrations, declarations and filings as may be required under the laws of various states or (vi) such other Consents, filings and registrations the failure of which to obtain would not reasonably be expected to have a Material Adverse Effect on Veeco.

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4.08 Contracts.

(a) Neither Veeco nor any of its Subsidiaries is a party to or is bound by any written contract, arrangement or commitment (i) with respect to the employment of any directors, officers or employees other than in the ordinary course of business consistent with past practice, (ii) which, upon the consummation or stockholder approval of the transactions contemplated by this Merger Agreement, will (either alone or upon the occurrence of any additional acts or events) result in any payment (whether of severance pay or otherwise) becoming due from FEI, Veeco, the Surviving Corporation or any of their respective Subsidiaries to any officer or employee thereof, (iii) which is a "material contract" (as such term is defined in Item 601(b)(10) of Regulation S-K of the SEC) to be performed, entirely or in part, after the date of this Merger Agreement, but which has not been previously filed with the SEC,

(iv) which are of the type required to be disclosed under Item 404 of Regulation S-K of the SEC, but which has not been previously filed with the SEC, (v) which materially restricts the conduct of any line of business by Veeco or any Subsidiary thereof or, upon consummation of the Merger, will materially restrict the ability of Veeco or the Surviving Corporation or any Subsidiary thereof to engage in any proposed line of business or (vi) which, upon the consummation or stockholder approval of the transactions contemplated by this Merger Agreement, will result in any of the FEI Entities or any of the Veeco Entities, granting any rights or licenses to any material Intellectual Property of any of the FEI Entities or any of the Veeco Entities, to any third party. Each contract, arrangement, commitment or understanding of the type described in this Section 4.08(a), whether or not set forth in the Veeco Disclosure Schedule, is referred to herein as a "Veeco Contract".

(b) (i) Each Veeco Contract is valid and binding on Veeco and any of its Subsidiaries that is a party thereto, as applicable, and is in full force and effect (except to the extent such contract has expired or terminated according to its terms), (ii) Veeco and each of its Subsidiaries has in all material respects performed all obligations required to be performed by it to date under each Veeco Contract, except where such noncompliance, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on Veeco, and (iii) neither Veeco nor any of its Subsidiaries, knows of, or has received notice of, the existence of any event or condition which constitutes, or, after notice or lapse of time or both, will constitute, a material default on the part of Veeco or any of its Subsidiaries under any such Veeco Contract, except where such default, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on Veeco.

4.09 Litigation. Except as disclosed in the Veeco SEC Documents prior to the date hereof, (i) there is no private or governmental action, suit, proceeding, claim, arbitration or investigation pending before any agency, court or tribunal, foreign or domestic, or, to the knowledge of Veeco, Threatened against Veeco or any other Veeco Entity or any of their respective properties or any of their respective officers or directors (in their capacities as such) that, individually or in the aggregate, could reasonably be expected to have a Material Adverse Effect on Veeco, and (ii) there is no judgment, decree or order against Veeco or any other Veeco Entity or, to the knowledge of Veeco, any of their respective directors or officers (in their capacities as such) that could prevent, enjoin, alter or materially delay any of the transactions contemplated by this Merger Agreement, or that could reasonably be expected to have a Material Adverse Effect on Veeco.

4.10 Taxes. Veeco and each of the Veeco Entities has filed or caused to be filed on a timely basis all Tax Returns that are or were required to be filed by Veeco and/or any of the other Veeco Entities, either separately or as part of an affiliated group of corporations, pursuant to the Laws of any Governmental Authority with taxing power over any of the Veeco Entities or its assets and business. All Tax Returns filed by any of the Veeco Entities are true, correct and complete. Veeco and each of the Veeco Entities has paid all Taxes that have become due by it pursuant to those Tax Returns or pursuant to any assessment received by any of the Veeco Entities, except such Taxes, if any, as are being

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contested in good faith and as to which adequate reserves have been provided in the Veeco Financial Statements. All Taxes that Veeco or any of the Veeco Entities is, or was, required by Law to withhold and collect have been duly withheld and collected and, to the extent required, have been paid to the appropriate Governmental Authority. There is no agreement, plan, arrangement or other contract covering any employee or independent contractor of Veeco or any of the Veeco Entities that would give rise to the payment of any amount that would not be deductible by Veeco or any of the Veeco Entities or the Surviving Corporation pursuant to Section 280G or Section 162(m) of the Code. Veeco is not a "United States real property holding corporation," as defined in Section 897(c)(2) of the Code. The charges, accruals and reserves with respect to Taxes on the Veeco Financial Statements with respect to each of the Veeco Entities (excluding any provision for deferred income taxes established to reflect timing differences between book and tax income) for all tax periods (or portions thereof) ending on or before the Closing Date (including any period for which no Tax Return has yet been filed) are adequate.

4.11 Absence of Certain Changes. Except as disclosed in or filed as an exhibit to the Veeco SEC Documents prior to the date hereof, since December 31, 2001 (the "Veeco Balance Sheet Date"), the Veeco Entities have conducted their business in the ordinary course consistent with past practice and there has not occurred: (i) any change, event or condition (whether or not covered by insurance) that has resulted in, or might reasonably be expected to result in, a Material Adverse Effect to Veeco; (ii) any acquisition, sale or transfer of any material asset of the Veeco Entities other than in the ordinary course of business and consistent with past practice; (iii) any change in accounting methods or practices (including any change in depreciation or amortization policies or rates) by Veeco or any revaluation by Veeco of any of its assets; (iv) any declaration, setting aside, or payment of a dividend or other distribution with respect to the Veeco Shares or any other Veeco Equity Securities (excluding interest payments on the Veeco Convertible Debt contemplated by the Indenture relating thereto), or any direct or indirect redemption, purchase or other acquisition by Veeco of any of its shares of capital stock; (v) any material Contract entered into by any Veeco Entity, other than in the ordinary course of business, or any material amendment or termination of, or default under, any material Contract to which any Veeco Entity is a party or by which any of them is bound; or (vi) any agreement by any Veeco Entity to do any of the things described in the preceding clauses (i) through (v) (other than negotiations with FEI and its Representatives regarding the transactions contemplated by this Merger Agreement).

4.12 Employee Benefit Plans; Labor Matters.

(a) There does not now exist any and, to the knowledge of Veeco, there are no existing circumstances that could reasonably be expected to result in, any Controlled Group Liability to Veeco or any of its Subsidiaries that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect on Veeco. No Veeco Benefit Plan is (i) a "multiemployer plan" within the meaning of Section 4001(a)(3) of ERISA, (ii) a "multiple employer plan" as defined in ERISA or the Code, or (iii) a "funded welfare plan" within the meaning of Section 419 of the Code. None of the Veeco Benefit Plans provides for any welfare or other non-pension benefits to retired or former employees, except to the extent required by the continuation coverage requirements of Section 601 et. seq. of ERISA, Section 4980B of the Code or similar state law.

(b) Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect on Veeco, (i) each of the Veeco Benefit Plans has been operated and administered in all material respects in accordance with applicable law and administrative rules and regulations of any Governmental Authority, including, but not limited to, ERISA and the Code, and (ii) there are no pending or, to the knowledge of Veeco, Threatened claims (other than claims for benefits in the ordinary course), lawsuits or arbitrations that have been asserted or instituted, and, to the knowledge of Veeco, no set of circumstances exists, that may reasonably give

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rise to a claim or lawsuit, against the Veeco Benefit Plans, any fiduciaries thereof with respect to their duties to the Veeco Benefit Plans or the assets of any of the trusts under any of the Veeco Benefit Plans that could reasonably be expected to result in any material liability of Veeco or any of its Subsidiaries to the PBGC, the U.S. Department of the Treasury, the U.S. Department of Labor, any Veeco Benefit Plan, any participant in a Veeco Benefit Plan, or any other party. There are no unpaid contributions due prior to the date hereof with respect to any Veeco Benefit Plan that are required to have been made under its terms and provisions, any related insurance contract or any applicable law.

(c) Neither Veeco nor any Subsidiary of Veeco is a party to any collective bargaining or other labor union contract applicable to individuals employed by Veeco or any Subsidiary of Veeco, and no collective bargaining agreement or other labor union contract is being negotiated by Veeco or any Subsidiary of Veeco. Except as would not reasonably be expected to have a Material Adverse Effect on Veeco, (i) there is no labor dispute, strike, slowdown or work stoppage against Veeco or any Subsidiary of Veeco pending or, to the knowledge of Veeco, Threatened against Veeco or any Subsidiary of Veeco and (ii) no unfair labor practice or labor charge or complaint has occurred with respect to Veeco or any Subsidiary of Veeco.

(d) Neither the execution and delivery of this Merger Agreement nor the consummation of the transactions contemplated hereby (either alone or in conjunction with any other event) will (i) result in any payment or benefit (including, without limitation, option acceleration, severance, unemployment compensation, "excess parachute payment" (within the meaning of Section 280G of the Code), forgiveness of indebtedness or otherwise) becoming due to any director, consultant or any current or former employee of Veeco or any Subsidiaries of Veeco under any Veeco consultant Benefit Plan or otherwise; (ii) increase any benefits otherwise payable under any Veeco Benefit Plan; (iii) result in any acceleration of the time of payment or vesting of any such benefits; (iv) require the funding of any trust or other funding vehicle; or (v) limit or prohibit the ability to amend, merge, terminate or receive a reversion of assets from any Veeco Benefit Plan or related trust.

(e) There has been no disallowance of a deduction, or reasonable expectation of a disallowance of a deduction, under Section 162(m) of the Code for employee compensation of any amount paid or payable by Veeco or any Subsidiary of Veeco that, either individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect on Veeco.

(f) Section 4.12(f) of the Veeco Disclosure Schedule sets forth a list of each material Veeco Benefit Plan.

(g) Veeco has heretofore made available to FEI true and complete copies of each of the Veeco Benefit Plans (and all related trust agreements, insurance contracts and other ancillary documents) and, to the extent applicable, (i) the actuarial report for such Veeco Benefit Plan for each of the last two years, (ii) the most recent determination letter from the IRS for such Veeco Benefit Plan, (iii) the summary plan description for such Veeco Benefit Plan, and (iv) the Form 5500 for such Veeco Benefit Plan for each of the last two years, and all schedules thereto. Since the date of the documents made available, there has not been any material change in the assets or liabilities of any of the Veeco Benefit Plans or any change in their terms and operations that could reasonably be expected to affect or alter the tax status or materially affect the cost of maintaining such Plan, and none of the Veeco Benefit Plans has been or will be amended prior to the Closing Date to the extent such amendment will materially affect the cost of maintaining such Plans. Each of the

Veeco Benefit Plans can be amended, modified or terminated by Veeco or a Subsidiary of Veeco within a period of 30 days, without payment of any additional compensation or amount or the additional vesting or acceleration of any such benefits, except to the extent that such vesting is required under the Code upon the complete or partial termination of any Veeco Benefit Plan intended to be qualified within the meaning of Section 401(a) of the Code.

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(h) Each Veeco Benefit Plan that is intended to be qualified under Section 401 of the Code has received a favorable determination letter from the IRS as to the qualification of such plan (or is a prototype plan entitled to rely on a favorable determination, opinion or advisory letter issued to the prototype sponsor), or has remaining a period of time under applicable Treasury regulations or IRS pronouncements in which to receive such a determination. For each Veeco Benefit Plan that has received such a determination, such letter has not been modified, revoked or limited by the failure to satisfy any condition thereof or by a subsequent amendment thereto, or failure to amend such Veeco Benefit Plan.

(i) Except as, either individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on Veeco, no individual who has been classified by Veeco as a non-employee (such as an independent contractor, leased employee or consultant) would reasonably be expected to have a claim against Veeco for eligibility to participate in any Veeco Benefit Plan, if such individual is later reclassified as a Veeco employee.

(j) Except as, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect on Veeco, all Veeco Benefit Plans subject to the laws of any jurisdiction outside of the United States (i) have been maintained in accordance with all applicable requirements, (ii) if they are intended to qualify for special tax treatment meet all requirements for such treatment, and (iii) if they are intended to be funded and/or book-reserved are fully funded and/or book reserved, as appropriate, based upon reasonable actuarial assumptions.

4.13 Intellectual Property Rights.

(a) Veeco and its Subsidiaries own, or are licensed to use, all Veeco Intellectual Property. To the knowledge of Veeco, the business and operations of Veeco and its Subsidiaries as they are currently conducted do not infringe on the rights of any third party where such infringement, individually or in the aggregate, would be reasonably expected to have a Material Adverse Effect on any Material Veeco Entity or any material business or product offering of Veeco or any of its Subsidiaries, and, to the extent material Veeco Intellectual Property is licensed from a third party, Veeco's use of such Intellectual Property is in accordance in all material respects with the applicable license pursuant to which Veeco acquired the right to use such Intellectual Property. To the knowledge of Veeco, no third party is challenging, infringing on or otherwise violating any right of Veeco in the Veeco Intellectual Property where such infringement, individually or in the aggregate, would be reasonably expected to have a Material Adverse Effect on any Material Veeco Entity or any material business or product offering of Veeco or any of its Subsidiaries. Since Neither Veeco nor any of its Subsidiaries has received any written notice of any pending claim, order or proceeding with respect to any material Veeco Intellectual Property, nor has Veeco received any written demand from any other party to cease and desist from infringement of such other party's Intellectual Property. To the knowledge of Veeco, no material Intellectual Property owned or licensed by Veeco is being used or enforced by Veeco or its Subsidiaries in a manner that would reasonably be expected to result in the abandonment, estoppel, cancellation or unenforceability of such Intellectual Property.

(b) The execution, delivery and performance of this Agreement by Veeco and the consummation by Veeco of the transactions contemplated hereby will not (i) constitute a breach by Veeco or its Subsidiaries of any material instrument or agreement governing any Veeco Intellectual Property, (ii) pursuant to the terms of any material license or agreement relating to any Veeco Intellectual Property, cause the material modification of any terms of any such license or agreement, including but not limited to the modification of the effective rate of any royalties or other payments provided for in any such license or agreement, (iii) cause the forfeiture or termination of any Veeco Intellectual Property under the terms thereof, (iv) give rise to a right of forfeiture or termination of any Veeco Intellectual Property under the terms thereof or (v) impair the right of Veeco, its Subsidiaries or, to Veeco's knowledge, FEI to make, have made, offer for

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sale, use, sell, export or license any products or processes used by Veeco, its Subsidiaries or, to Veeco's knowledge, FEI in the conduct of their business as it is currently configured, except in each case for those matters that individually or in the aggregate would not reasonably be expected to have a Material Adverse Effect on Veeco.

(c) Each item of material Veeco Intellectual Property owned by Veeco or a Subsidiary thereof (the "Veeco-Owned IP") (i) is free and clear of any Liens or filings required under the Uniform Commercial Code in effect in any jurisdiction; (ii) is not subject to any outstanding judicial order, decree, judgment or stipulation or to any agreement materially restricting the scope of Veeco's or such Subsidiary's use thereof; and (iii) together with each item of material Veeco Intellectual Property which Veeco or such Subsidiary has a right to use or practice pursuant to one or more license or similar agreements, is not subject to any suits, actions, written claims or demands of any third party and no action or proceeding, whether judicial, administrative, has been instituted, is pending or, to Veeco's knowledge, Threatened, which challenges or affects the rights of Veeco or such Subsidiary in the same manner.

(d) Neither Veeco nor any Subsidiary thereof has entered into any agreement to indemnify any third party against any claim of infringement, misappropriation or other violation of Veeco Intellectual Property rights other than indemnification provisions contained in purchase orders, customer agreements or similar agreements arising in the ordinary course of business.

(e) To the knowledge of Veeco and its Subsidiaries, (a) all rights in all inventions and discoveries made, developed or conceived by any current or former officer, employee, independent contractor, consultant or any other agent of Veeco or any Subsidiary thereof during the course of their employment (or other retention) by Veeco or a Subsidiary thereof and material to the business of Veeco or a Subsidiary thereof and which are the subject of one or more issued letters patent or applications for letters patent have been assigned in writing to Veeco or a Subsidiary thereof; and (b) the policy of Veeco or a Subsidiary thereof requires each employee of Veeco or a Subsidiary thereof to sign documents confirming that he or she assign to Veeco or a Subsidiary thereof all Intellectual Property rights made, written, developed or conceived by him or her during the course of his or her employment (or other retention) by Veeco or a Subsidiary thereof and relating to the business of Veeco or a Subsidiary thereof to the extent that ownership of any such Intellectual Property rights does not vest in Veeco or a Subsidiary thereof by operation of Law.

(f) Veeco believes that Veeco and its Subsidiaries have taken reasonable and practicable steps to protect and preserve the confidentiality of any material Veeco Intellectual Property that it wishes to remain confidential ("Veeco Confidential IP Information"). Veeco believes that all use by Veeco and its Subsidiaries of Veeco Confidential IP Information not owned by Veeco and its Subsidiaries has been and is pursuant to the terms of a written agreement between Veeco or a Subsidiary thereof and the owner of such Confidential Information, or is otherwise lawful.

4.14 Absence of Liens; Title to Property.

(a) For purposes of this Agreement, "Veeco Real Property" means all interests in real property including, fee estates, leaseholds and subleaseholds, purchase options, easements, licenses, privileges, hereditaments, appurtenances, rights to access and rights of way, and all fixtures, buildings, structures and other improvements thereon, owned or used by Veeco, together with any additions thereto or replacements thereof.

(b) Section 4.14(b) of the Disclosure Schedule contains the true and correct street address of all Veeco Real Property owned by Veeco (the "Veeco Owned Real Property") and contains the true and correct street address of all Veeco Real Property leased by Veeco and exceeding 10,000 square feet of leased area, excluding, however, any Veeco Owned Real Property or leased Veeco Real Property identified in Veeco's financial statements or the Veeco SEC Documents (the "Veeco

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Leased Real Property"). There is no other material real property that is owned or leased by Veeco or used in or necessary for the conduct of business as presently conducted.

(c) Except as would not reasonably be expected to have a Material Adverse Effect on Veeco, all leases for material Veeco Leased Real Property (the "Veeco Leases") are in good standing, valid and effective in accordance with their respective terms, and neither Veeco nor any of its Subsidiaries, nor to Veeco's knowledge, any other party to a Veeco Lease, is in material breach, violation or default under, and neither Veeco nor any of its Subsidiaries has received written notice that it has breached, violated or defaulted under, any of the terms or conditions of any Veeco Lease. Veeco has provided FEI with true, complete and correct copies of each Veeco Lease.

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(d) Except as would not reasonably be expected to have a Material Adverse Effect on Veeco, the Veeco Real Property and all present uses and operations of the Veeco Real Property comply with all applicable Laws, Court Orders, Governmental Permits, restrictions of any Governmental Body having jurisdiction over any portion of the Veeco Real Property (including, those relating to zoning, land use, safety, health, employment and employment practices and access by the handicapped), covenants, conditions, restrictions, easements, disposition agreements and similar matters affecting the Veeco Real Property. Except as would not reasonably be expected to have a Material Adverse Effect on Veeco, Veeco has obtained all approvals of any Governmental Body (including, certificates of use and occupancy, licenses and permits) required in connection with the construction, ownership, use, and occupation of the Veeco Real Property and operation of its business.

(e) Veeco and each of its Subsidiaries has good and valid title to, or, in the case of leased assets, valid leasehold interests in, all of its material tangible assets used in its business, free and clear of any Liens, except (i) Liens reflected in the Veeco Financial Statements or the Veeco SEC Documents; (ii) Liens for Taxes not yet due and payable; and (iii) Liens which are not material to Veeco and its Subsidiaries taken as a whole.

4.15 Environmental Matters. Except as disclosed in the Veeco SEC Documents:

(a) The Veeco Entities have conducted all Hazardous Substance Activities relating to the business in compliance in all material respects with all applicable Environmental Laws. The Hazardous Substance Activities of the Veeco Entities prior to the Closing have not resulted in the exposure of any person to a Hazardous Substance in a manner which could reasonably be expected to result in a Material Adverse Effect on Veeco. The Veeco Entities have obtained all material Environmental Permits. All such Environmental Permits are valid and in full force and effect. The Veeco Entities have not received written notice of any action to revoke or modify any of such Environmental Permits, and, to Veeco's knowledge the ownership and operation of the Veeco Entities' business is and has been in material compliance with all terms and conditions thereof. The Veeco Entities have not received notice of any pending or Threatened claim by any Governmental Authority or any other Person concerning potential liability of any of the Veeco Entities under Environmental Laws in connection with the ownership or operation of its business. Except in compliance with Environmental Laws and in a manner that could not reasonably be expected to subject the Veeco Entities to material liability, to the knowledge of the Veeco Entities, no Hazardous Substances are present on any real property currently owned, operated, occupied, controlled or leased by the Veeco Entities or were present on any other real property at the time it ceased to be owned, operated, occupied, controlled or leased by the Veeco Entities.

(b) The Veeco Entities have made all disclosures, including notice of a Release or Threatened Release of a Hazardous Substance, required of any Veeco Entity under any Environmental Law.

(c) No Veeco Entity has received written notice, or otherwise obtained knowledge, of the existence of any circumstances or conditions that would reasonably be expected to result in any material environmental liability.

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(d) No Veeco Entity has received written notice or otherwise obtained knowledge of any material liability with respect to any Hazardous Substance, which it has transported or arranged for the transportation of to premises not owned or operated by any Veeco Entity.

4.16 Brokers and Finders. Except for Salomon Smith Barney Inc. ("Veeco's Broker"), no broker, finder, agent or similar intermediary has acted on Veeco's or Acquisition's behalf in connection with this Merger Agreement or the transactions contemplated hereby, and there are no brokerage commissions, finders' fees or similar fees or commissions payable in connection therewith based on any Contract with Veeco or Acquisition or any action taken by Veeco or Acquisition. Veeco shall pay all fees and disbursements of Veeco's Broker.

4.17 Reorganization. Neither Veeco nor any of its Subsidiaries has taken any action or has knowledge of any fact or circumstance that would reasonably be expected to cause the Merger to fail to qualify as a reorganization within the meaning of Section 368(a) of the Code.

4.18 Board Approval. The Board of Directors of Veeco has unanimously (i) determined that the Merger is advisable, consistent with and in the furtherance of the long-term business strategy of Veeco and fair to, and in the best interests of, Veeco and its stockholders, (ii) approved this Merger Agreement, the Merger and the other transactions contemplated by this Merger Agreement and (iii) approved and determined to recommend that the stockholders of Veeco vote to approve the issuance of the Veeco Shares in the Merger.

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4.19 Opinion of Veeco's Broker. The Board of Directors of Veeco has received the opinion of Veeco's Broker, dated as of the date of this Merger Agreement, to the effect that, as of such date, the Exchange Ratio was fair, from a financial point of view, to Veeco.

4.20 Restrictions on Business Activities. There is no material agreement, judgment, injunction, order or decree binding upon Veeco or any of its Subsidiaries which has or, to its knowledge, reasonably could be expected to have the effect of prohibiting or materially impairing any current or proposed future business practice of Veeco or any of its Subsidiaries, any proposed acquisition of property by Veeco or any of its Subsidiaries or the conduct of business by Veeco or any of its Subsidiaries as currently conducted or as proposed to be conducted by Veeco or any of its Subsidiaries.

4.21 State Anti-takeover Statutes. Veeco has granted all approvals and taken all other steps necessary to exempt the Veeco Stockholder Voting Agreements, the Merger and the other transactions contemplated hereby from the requirements and provisions of Section 203 of the DGCL and other state anti-takeover statutes or regulations to the extent applicable such that none of the provisions of such "business combination," "moratorium," "control share," or other state anti-takeover statute or regulation (a) applies to this Merger Agreement or any of the transactions contemplated hereby, (b) prohibits or restricts Veeco's ability to perform its obligations under this Merger Agreement or its ability to consummate the Merger and the other transactions contemplated hereby, (c) would have the effect of invalidating or voiding this Merger Agreement or any provisions hereof or (d) would subject Veeco to any material impediment or condition in connection with the exercise of any of its rights under this Merger Agreement.

4.22 Ownership of FEI Stock. As of the date of this Merger Agreement, neither Veeco nor any of its Subsidiaries own any shares of FEI Common Stock.

4.23 Form S-4 Registration Statement: Joint Proxy Statement. None of the information to be supplied by Veeco or its Subsidiaries in (i) the Form S-4 Registration Statement will, at the time it becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading and (ii) the Joint Proxy Statement will, on the date of the mailing of the Joint Proxy Statement and any amendments or supplements thereto, at the time of each of the Veeco Stockholders' Meeting and the FEI Stockholders' Meeting, and at the Effective Time, contain any

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untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not false or misleading, or omit to state any material fact necessary to correct any statement in any earlier communication with respect to the solicitation of proxies for the FEI Stockholders Meeting or the Veeco Stockholders Meeting, which has become false or misleading. The Joint Proxy Statement will comply, as of its mailing date, as to form in all material respects with all applicable Laws, including the provisions of the Exchange Act, except that no representation is made by Veeco with respect to information supplied by FEI for inclusion therein.

4.24 Veeco Rights Agreement. The Board of Directors of Veeco has amended (in the form provided to FEI) the Veeco Rights Agreement so that none of FEI or its Affiliates shall become an "Acquiring Person," and no "Distribution Date" or "Triggering Event" (as such terms are defined in the Veeco Rights Agreement) will occur as a result of the approval, execution or delivery of this Merger Agreement or the Veeco Stockholder Voting Agreements or the consummation of the transactions contemplated hereby and thereby.

V. COVENANTS

5.01 Access. Between the date hereof and the Closing Date, upon reasonable notice, FEI shall, and shall cause each of the other FEI Entities to, provide Veeco, Acquisition and each of their authorized Representatives with such reasonable access to the properties, books, records, Tax Returns, Contracts, information, documents and personnel of the FEI Entities as they relate to the FEI Entities' business during normal business hours as Veeco or Acquisition may reasonably request for the purpose of making such investigation of the business, properties, financial condition, operations and results of operations of the FEI Entities' business as Veeco or Acquisition may deem appropriate or necessary. Between the date hereof and the Closing Date, upon reasonable notice, Veeco shall, and shall cause each of the other Veeco Entities to, provide FEI and each of its authorized Representatives with such reasonable access to the properties, books, records, Tax Returns, Contracts, information, documents and personnel of the Veeco Entities as they relate to the Veeco Entities' business during normal business hours as FEI may reasonably request for the purpose of making such investigation of the business, properties, financial condition, operations and results of operations of the Veeco Entities' business as FEI may deem appropriate or necessary. Notwithstanding anything to the contrary herein, if any party is prohibited from disclosing confidential information to another party by Law or by preexisting confidentiality obligations, then such party shall inform the other party of such prohibition and the parties shall work together to resolve any related due diligence matters without violating such Laws or confidentiality obligations, including using reasonable best efforts to obtain third party Consents to such disclosure, if appropriate.

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5.02 Conduct of the Business of the Parties Pending the Closing Date. During the period commencing with the execution and delivery of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, except (i) as otherwise expressly permitted by this Merger Agreement, (ii) in the case of FEI as provided in Schedule 5.02 of the FEI Disclosure Schedule and in the case of Veeco and Acquisition as provided in Schedule 5.02 of the Veeco Disclosure Schedule, or (iii) to the extent that the other party shall otherwise consent in writing (which consent shall not be unreasonably withheld), each of FEI (which for the purposes of this Section 5.02 shall include FEI and each of its Subsidiaries) and Veeco (which for the purposes of this Section 5.02 shall include Veeco and each of its Subsidiaries), shall (a) carry on its respective businesses in the usual, regular and ordinary course consistent with past practice in all material respects, in substantially the same manner as heretofore conducted and in compliance with all applicable Laws, (b) shall use its reasonable commercial efforts to keep available the services of its present officers and key employees, consistent with past practice, preserve intact its present lines of business, maintain its rights and franchises and preserve its relationships with material

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customers, suppliers and others having business dealings with it to the end that its ongoing businesses shall not be impaired in any material respect on or after the Closing Date, (c) pay its debts and Taxes when due (unless being contested or disputed in good faith), (d) pay or perform other material obligations when due, (e) keep in force all insurance policies, and (f) otherwise ensure that its ongoing businesses shall not be impaired in any material respect on or after the Closing Date. Except as otherwise expressly permitted by this Merger Agreement, during the period commencing with the execution and delivery of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, none of FEI, Veeco or Acquisition shall, without the prior consent of the other Parties (which consent shall not be unreasonably withheld), take any affirmative action, or fail to take any reasonable action within its control, as a result of which any of the changes or events listed in Section 3.11 or 4.11, as applicable, of this Merger Agreement is reasonably likely to occur. During the period commencing with the execution and delivery of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, FEI shall confer with Veeco concerning operational matters of the FEI Entities of a material nature and otherwise report periodically to Veeco concerning the status of the FEI Entities' business, operations and finances. During the period commencing with the execution and delivery of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, Veeco shall confer with FEI concerning operational matters of the Veeco Entities of a material nature and otherwise report periodically to FEI concerning the status of the Veeco Entities' business, operations and finances. In furtherance of the foregoing and subject to applicable Law, FEI and Veeco shall confer, as promptly as practicable, prior to taking any material actions or making any material management decisions with respect to the conduct of its business during the foregoing period.

5.03 Restricted Conduct. Without limiting Section 5.02, except as expressly contemplated by this Merger Agreement or as set forth on Schedule 5.03 of the FEI Disclosure Schedule or of the Veeco Disclosure Schedule, during the period commencing with the execution and delivery of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, neither FEI (which for the purposes of this Section 5.03 shall include FEI and each of its Subsidiaries) nor Veeco (which for the purposes of this Section 5.03 shall include Veeco and each of its Subsidiaries) shall do, cause or permit any of the following without the prior written consent of the other (which consent will not be unreasonably withheld or delayed):

(a) Charter Documents. Cause or permit any amendments to its Certificate of Incorporation or Articles of Incorporation or Bylaws or other governing documents;

(b) Dividends; Changes in Capital Stock. Declare or pay any dividends on, or make any other distributions (whether in cash, stock or property) in respect of, any of its capital stock, or split, combine or reclassify any of its capital stock or issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for shares of its capital stock, or repurchase or otherwise acquire, directly or indirectly, any shares of its capital stock except from former employees, directors and consultants in accordance with currently effective agreements providing for the repurchase of shares in connection with any termination of service to it or its Subsidiaries; or sell or otherwise issue any shares of its capital stock or securities exercisable or exchangeable for or convertible into shares of its capital stock, other than in accordance with or pursuant to existing option plans or upon the exercise or conversion of Veeco Options outstanding as of the date of this Merger Agreement, FEI Options outstanding as of the date of this Merger Agreement, the Veeco Convertible Debt, the FEI Convertible Debt, under the Veeco ESPP or under the FEI ESPP or other convertible or exchangeable securities outstanding as of the date of this Merger Agreement;

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(c) Reorganization. Take or fail to take any action that would reasonably be expected to cause the Merger to fail to qualify as a reorganization within the meaning of Section 368(a) of the Code.

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(d) No Acquisitions. Acquire or agree to acquire by merger or consolidation, or by purchasing a substantial portion of the assets of, or by any other manner, any business or any corporation, partnership, association or other business organization or division thereof or otherwise acquire or agree to acquire any assets which could be material to the acquiror (excluding the acquisition of assets used in the operations of its and its Subsidiaries' business in the ordinary course, which assets do not constitute a business unit, division or all or substantially all of the assets of the transferor);

(e) Ordinary Course. Other than in the ordinary course of business (i) enter into any new material line of business or (ii) incur or commit to any capital expenditures or any obligations or liabilities in connection therewith;

(f) Issuance of Securities. Issue, deliver, sell, pledge, dispose of, or otherwise encumber, or authorize or propose the issuance, delivery, sale, pledge, disposition or encumbrance of, any shares of its capital stock of any class, any Voting Debt or any securities convertible into or exercisable for, or any rights, warrants, calls, or options to acquire, any such shares or Voting Debt, or enter into any commitment, arrangement, undertaking or agreement with respect to any of the foregoing, other than or in connection with (A) the issuance of shares upon the exercise of Veeco Options or FEI Options (as applicable) or the Veeco Convertible Debt or the FEI Convertible Debt (as applicable) in accordance with their present terms or pursuant to Veeco Options or FEI Options (as applicable) or other stock-based awards granted pursuant to clause (B) below, (B) the granting of Veeco Options or FEI Options (as applicable) or other stock-based awards, (excluding the granting of "reload" stock options (e.g. stock options that, pursuant to the terms thereof require a new grant of options to the holder upon the exercise of such initial options)), under Benefit Plans outstanding on the date hereof in the ordinary course of business and in individual and aggregate amounts consistent with past practice or (C) issuances, sales or deliveries by a wholly owned Subsidiary to its parent;

(g) Liquidation; Dissolution. Adopt a plan of complete or partial liquidation, dissolution, consolidation, restructuring, recapitalization or other reorganization;

(h) Changes in Accounting Methods. Except as required by GAAP, make any change in accounting methods, principles or practices;

(i) Joint Ventures. Enter into any material joint venture, partnership or similar arrangement;

(j) No Dispositions. Sell, lease or otherwise dispose of, or agree to sell, lease or otherwise dispose of, any of its assets (including capital stock of Subsidiaries) other than in the ordinary course of business consistent with past practice;

(k) Investments; Indebtedness. (A) Make any loans, advances or capital contributions to, or investments in, any other Person, other than (I) loans or investments in a Subsidiary or (II) in the ordinary course of business consistent with past practice which are not, individually or in the aggregate, material (provided that none of such transactions referred to in this Clause (II) presents a material risk of making it more difficult to obtain any Consent required in connection with the Merger under Regulatory Law) or (B) except in the ordinary course consistent with past practice, incur any indebtedness for borrowed money or guarantee any such indebtedness of another Person, issue or sell any debt securities or warrants or other rights to acquire any debt securities, guarantee any debt securities of another Person, enter into any "keep well" or other agreement to maintain

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any financial statement condition of another Person (other than a wholly owned Subsidiary) or enter into any arrangement having the economic effect of any of the foregoing;

(l) Compensation. Except as required by Law or by the terms of any collective bargaining agreement or other agreement in effect as of the date of this Merger Agreement, increase the amount of compensation of, or pay any severance to (other than in the ordinary course consistent with past practice), any director, officer or (other than in the ordinary course consistent with past practice) key employee, or make any increase in or commitment to increase or accelerate the payment of any employee benefits, grant any additional stock options (except as permitted by Section 5.03(f)), adopt or amend or make any commitment to adopt or amend any Benefit Plan or fund or make any contribution to any Benefit Plan or any related trust or other funding vehicles, other than regularly scheduled contributions to trust funding qualified plans; and shall not accelerate the vesting of, or the lapsing of restrictions with respect to any stock option, and any option granted or committed to be granted after the date of this Merger Agreement shall not accelerate as a result of approval or consummation of any transaction contemplated by this Merger Agreement;

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(m) Intellectual Property. Transfer or license to any Person or otherwise extend, amend or modify any rights to any intellectual property owned by it or its Subsidiaries, other than in the ordinary course of business or pursuant to any Contracts currently in place (that have been disclosed in writing to the other party hereto prior to the date of this Merger Agreement);

(n) Certain Actions. Other than as expressly permitted by Section 5.16 in the case of FEI or 5.17 in the case of Veeco, take any action for the purpose of preventing, delaying or impeding the consummation of the Merger or the other transactions contemplated by this Merger Agreement; or

(o) Other. Take, or agree in writing or otherwise to take, any of the actions described in Sections 5.03(a) through (n) above.

5.04 Consents.

(a) FEI, Veeco and Acquisition shall cooperate and use their respective reasonable best efforts to obtain, prior to the Effective Time, all licenses, permits, Consents, approvals, authorizations, qualifications and orders of Governmental Authorities, parties to the FEI Contracts and the Veeco Contracts and any other Persons as are necessary for consummation of the transactions contemplated by this Merger Agreement and for the Surviving Corporation to enjoy all rights under such FEI Contracts and Veeco Contracts after the consummation of the transactions contemplated by this Merger Agreement.

(b) FEI and Veeco shall use their respective reasonable best efforts to file, as soon as practicable after the date of this Merger Agreement, all notices, reports and other documents required to be filed with any Governmental Authority with respect to the Merger and the other transactions contemplated by this Merger Agreement, and to submit promptly any additional information requested by any such Governmental Authority. Without limiting the generality of the foregoing, FEI and Veeco shall, promptly after the date of this Merger Agreement, prepare and file the notifications required under the HSR Act (within 20 days following the date of this Merger Agreement) and any applicable foreign antitrust Laws or regulations in connection with the Merger that are reasonably determined by the parties to apply. FEI and Veeco shall respond as promptly as practicable to (i) any inquiries or requests received from the Federal Trade Commission or the Department of Justice for additional information or documentation and (ii) any inquiries or requests received from any state attorney general, foreign antitrust authority or other Governmental Authority in connection with antitrust or related matters. Each of FEI and Veeco shall (1) give the other party prompt notice of the commencement or threat of commencement of any Legal Proceeding by or before any Governmental Authority with respect to the Merger or any

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of the other transactions contemplated by this Merger Agreement, (2) keep the other party informed as to the status of any such Legal Proceeding or threat, and (3) promptly inform the other party of any communication to or from the Federal Trade Commission, the Department of Justice or any other Governmental Authority regarding the Merger. Except as may be prohibited by any Governmental Authority or by any Law, FEI and Veeco will consult and cooperate with one another, and will consider in good faith the views of one another, in connection with any analysis, appearance, presentation, memorandum, brief, argument, opinion or proposal made or submitted in connection with any Legal Proceeding under or relating to the HSR Act or any other foreign, federal or state antitrust or fair trade Law. In addition, except as may be prohibited by any Governmental Authority or by any Law, in connection with any Legal Proceeding under or relating to the HSR Act or any other foreign, federal or state antitrust or fair trade Law or any other similar Legal Proceeding, each of FEI and Veeco will permit authorized outside legal counsel of the other party, to the extent necessary for any joint defense or mutually agreed to by FEI's and Veeco's respective outside legal counsel, to be present at each meeting or conference relating to any such Legal Proceeding and to have access to and be consulted in connection with any document, briefing, opinion or proposal made or submitted to any Governmental Authority in connection with any such Legal Proceeding. Notwithstanding anything to the contrary in this Merger Agreement, neither Veeco nor FEI nor any of their respective Subsidiaries shall be required to hold separate (including by trust or otherwise) or to divest or agree to divest any of their respective businesses or assets, or to take or agree to take any action or agree to any limitation that would be reasonably likely to have a Material Adverse Effect on Veeco (assuming the Merger has been consummated) or would be reasonably likely to materially adversely impact the benefits expected to be derived by Veeco and FEI from consummation of the Merger, and neither Veeco nor FEI shall be required to agree to or effect any divestiture, hold separate any business or take any other action that is not conditional on the consummation of the Merger.

5.05 Stock Options.

(a) At the Effective Time, all rights with respect to FEI Common Stock under FEI Options then outstanding shall be converted into and become rights with respect to Veeco Shares, and Veeco shall assume each such FEI Option in accordance with the terms (as in effect as of the date of this Merger Agreement) of the stock option plan or other arrangement under which it was issued and the

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terms of the stock option agreement by which it is evidenced. From and after the Effective Time, (i) each FEI Option assumed by Veeco may be exercised by the holder thereof solely for Veeco Shares, (ii) the number of Veeco Shares subject to each such FEI Option shall be equal to the product of (A) the number of shares of FEI Common Stock subject to such FEI Option immediately prior to the Effective Time multiplied by (B) the Exchange Ratio, rounding to the nearest whole share, (iii) the per share exercise price under each such FEI Option shall be adjusted by dividing (x) the per share exercise price under such FEI Option by (y) the Exchange Ratio and rounding to the nearest cent and (iv) any restriction on the exercise or transfer of any such FEI Option shall continue in full force and effect in accordance with its terms and the term, exercisability, vesting schedule and other provisions of or relating to such FEI Option shall otherwise remain unchanged. Veeco shall file with the SEC, no later than the date on which the Merger becomes effective, a registration statement on Form S-8 relating to the Veeco Shares issuable with respect to FEI Options assumed by Veeco in accordance with this Section 5.05(a).

(b) It is the intention of the parties that the FEI Options so assumed by Veeco shall qualify, to the maximum extent permissible following the Effective Time, as incentive stock options, as defined in Section 422 of the Code, to the extent the FEI Options so assumed qualified as incentive stock options prior to the Effective Time.

(c) Prior to the Effective Time, FEI shall take all action that may be necessary (under the plans pursuant to which FEI Options are outstanding and otherwise) to effectuate the provisions

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of this Section 5.05 and to ensure that, from and after the Effective Time, holders of FEI Options have no rights with respect thereto other than those specifically provided in this Section 5.05.

5.06 ESPP

(a) At the Effective Time, the FEI Employee Stock Purchase Plan (the "FEI ESPP") and each outstanding purchase right with respect to all open offering periods under the FEI ESPP (each an "Assumed Purchase Right") shall be assumed by Veeco. Each Assumed Purchase Right shall continue to have, and be subject to, the terms and conditions set forth in the FEI ESPP and the documents governing the Assumed Purchase Right, except that the purchase price of Veeco Shares under each Assumed Purchase Right shall be the lower of (i) the quotient determined by dividing eighty-five percent (85%) of the fair market value of a share of FEI Common Stock on the offering date of each assumed offering period by the Exchange Ratio (with the purchase price rounded up to the nearest whole cent) or (ii) eighty-five percent (85%) of the fair market value of a Veeco Share on the applicable purchase date of each assumed offering period occurring after the Effective Time. Subject to Section 5.06(b), the Assumed Purchase Rights shall be exercised at such times following the Effective Time as set forth in the FEI ESPP, and each participant shall, accordingly, be issued Veeco Shares at such times.

(b) Prior to the Effective Time, FEI shall take any and all action that may be necessary under the FEI ESPP (or otherwise) to ensure that (i) all offering periods under the FEI ESPP that are open at the Effective Time and are assumed by Veeco pursuant to Section 5.06(a), shall terminate, and the applicable purchase date for all Assumed Purchase Rights shall occur, on or before December 31, 2002, (ii) the FEI ESPP shall terminate on or before December 31, 2002, and (iii) the offering period scheduled to begin on or about September 1, 2002 shall be the last offering period to commence under the FEI ESPP (the "September Offering"), and the September Offering shall terminate, and the applicable purchase date shall occur, on December 31, 2002. Veeco agrees to implement or continue, as applicable, the September Offering and all Assumed Purchase Rights until the earlier of (i) December 31, 2002, or (ii) the date that the applicable offering period would have otherwise terminated, without additional corporate action, pursuant to the FEI ESPP.

(c) Veeco agrees that the employees of FEI who become employees of Veeco or any Subsidiary of Veeco may participate in the employee stock purchase plan sponsored by Veeco (the "Veeco ESPP"), subject to the terms and conditions of the Veeco ESPP.

5.07 Employee Matters

(a) Until the first anniversary of the Effective Time, Veeco shall, or shall cause a Subsidiary of Veeco to, (i) provide the employees of FEI who remain employed with Veeco or any Subsidiary of Veeco in the U.S. after the Effective Time (the "U.S. Continuing Employees") with terms and conditions of employment that are substantially comparable in the aggregate to those provided to similarly situated employees of Veeco (the "Veeco Benefits") or (ii) continue to provide the U.S. Continuing Employees with terms and conditions of employment that are substantially comparable in the aggregate to those provided by FEI immediately

prior to the Effective Time. Nothing contained herein shall be construed to limit the ability of Veeco or a Subsidiary of Veeco, following the Effective Time, to terminate the employment of any employee or to amend or terminate any Veeco or FEI Benefit Plan in accordance with its terms.

(b) Except to the extent necessary to avoid duplication of benefits, and, to the extent permitted under applicable law (after adoption of any amendments necessary to implement the following), Veeco shall provide the U.S. Continuing Employees with full credit, for purposes of eligibility and vesting under any employee benefit plans or arrangements maintained by Veeco or any Subsidiary of Veeco in which such employees are eligible to participate, for such employees'

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service with FEI to the same extent recognized by FEI immediately prior to the Effective Time. Veeco shall cause any and all pre-existing condition (or actively-at-work or similar) limitations, eligibility waiting periods and evidence of insurability requirements under any welfare plan to be waived with respect to the U.S. Continuing Employees and their eligible dependents and shall provide them with credit for any co-payments, deductibles and offsets (or similar payments) made prior to the Effective Time for purposes of satisfying any applicable deductible, out-of-pocket, or similar requirement under any employee benefit plans or arrangements maintained by Veeco or any Subsidiary of Veeco in which such employees are eligible to participate on and after the Effective Time.

(c) Nothing herein expressed or implied shall confer upon any of the U.S. Continuing Employees or any other current or former employee or legal representative thereof, any rights or remedies, including, without limitation, any right to employment, or continued employment for any specified period, of any nature or kind whatsoever under or by reason of this Agreement.

(d) Veeco shall provide employees of FEI who remain employed with Veeco or any Subsidiary of Veeco outside the U.S. after the Effective Time (the "Foreign Continuing Employees") with terms and conditions of employment that are substantially similar to those provided by FEI or any Subsidiary of FEI immediately prior to the Effective Time as and to the extent required by applicable Law.

(e) Until such time as that certain Employment Agreement, dated as of the date hereof, between Veeco and Vahé Sarkissian is terminated, Veeco will continue in effect the FEI Non-Qualified Deferred Compensation Plan on substantially the same terms and conditions as existing on the date of this Agreement (or will put in place a successor plan with substantially the same terms and conditions, which may permit participation by other employees of Veeco and its Subsidiaries); provided, however, that in no event shall the Company be required to make any contributions to such plan.

5.08 Indemnification of Officers and Directors.

(a) From and after the Effective Time, Veeco will, (a) and will cause the Surviving Corporation to, fulfill and honor in all respects the obligations of FEI pursuant to any indemnification agreements between FEI and its directors and officers immediately prior to the Effective Time (collectively, the "Indemnified Persons"), subject to applicable law. The Articles of Incorporation and Bylaws of the Surviving Corporation will contain provisions with respect to exculpation and indemnification that are at least as favorable to the Indemnified Persons as those provisions contained in the Articles of Incorporation and Bylaws of FEI as in effect on the date of this Merger Agreement, which provisions will not be amended, repealed or otherwise modified for a period of six years from the Effective Time in any manner that would adversely affect the rights thereunder of an Indemnified Person, unless such modification is required by law.

(b) From the Effective Time until the sixth anniversary of the Effective Time, the Surviving Corporation shall maintain in effect (and Veeco shall cause the Surviving Corporation to maintain in effect), for the benefit of the Indemnified Persons, with respect to acts or omissions occurring prior to the Effective Time, the existing policy of directors' and officers' liability insurance maintained by FEI as of the date of this Merger Agreement in the form disclosed by FEI to Veeco prior to the date of this Merger Agreement (the "Existing Policy"); *provided, however*, that (i) the Surviving Corporation may in its sole discretion determine to substitute for the Existing Policy a policy or policies of comparable coverage, and (ii) the Surviving Corporation shall not be required to pay annual premiums for the Existing Policy (or for any such substitute policies) in excess of 200% of the premium payable by FEI therefor as of the date of this Merger Agreement, in the aggregate. In the event any future annual premium for the Existing Policy (or any such substitute

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policies) exceeds 200% of the premium payable by FEI therefor as of the date of this Merger Agreement, in the aggregate, the Surviving Corporation shall be entitled to reduce the amount of coverage of the Existing Policy (or any such substitute policies) to the amount of coverage that can be obtained for a premium equal to 200% of the premium payable by FEI therefor as of the date of this Merger Agreement.

(c) This Section 5.08 is intended to be for the benefit of, and shall be enforceable by the Indemnified Persons and their heirs and personal representatives and shall be binding on Veeco, the Surviving Corporation and their successors and assigns. In the event Veeco, the Surviving Corporation or their respective successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving Person in such consolidation or merger or (ii) transfers all or substantially all of its properties and assets to any Person, then, and in each case, proper provision shall be made so that the successor and assign of Veeco or the Surviving Corporation, as applicable, honor the obligations set forth in this Section 5.08.

5.09 Registration Statement on Form S-3. Veeco shall file with the SEC, no later than the date on which the Merger becomes effective, a registration statement on Form S-3, relating to the resale of the FEI Convertible Debt and the common stock issuable upon conversion of the FEI Convertible Debt.

5.10 Tax Matters.

(a) (i) Between the date hereof and the Closing Date, FEI shall file or cause to be filed on a timely basis all Tax Returns that are required to be filed by it or by any of the other FEI Entities, either separately or as part of an affiliated group of corporations, pursuant to the Laws of each Governmental Authority with taxing power over it or any of the other FEI Entities or any of the FEI Entities' assets and businesses. Each of such Tax Returns will be true, correct and complete in all material respects when filed. Neither FEI nor any FEI Entity shall (i) make any election or (ii) file any amended Tax Return reflecting any position, in the case of each of (i) and (ii) that could result in a material adverse Tax consequence to Veeco, Acquisition, FEI or any FEI Entity or Veeco Entity for any period beginning on or after the Effective Time. FEI shall timely file all required transfer Tax Returns and/or notices of the transfer of the FEI Entities' business, if any, with the appropriate Governmental Authority. Veeco shall cooperate with FEI in connection with the matters contemplated by this Section 5.10(a)(i), which cooperation shall include, without limitation, providing information and executing and delivering documents, in connection with FEI's or any of the FEI Entities' obligations under this Section 5.10(a)(i).

(ii) Between the date hereof and the Closing Date, Veeco shall file or cause to be filed on a timely basis all Tax Returns that are required to be filed by it or by any of the other Veeco Entities, either separately or as part of an affiliated group of corporations, pursuant to the Laws of each Governmental Authority with taxing power over it or any of the other Veeco Entities or any of the Veeco Entities' assets and businesses. Each of such Tax Returns will be true, correct and complete in all material respects when filed. Neither Veeco nor any Veeco Entity shall (i) make any election or (ii) file any amended Tax Return reflecting any position, in the case of each of (i) and (ii) that could result in a material adverse Tax consequence to Veeco, Acquisition, FEI or any FEI Entity or any Veeco Entity for any period beginning on or after the Effective Time. Veeco shall timely file all required transfer Tax Returns and/or notices of the transfer of the Veeco Entities' business, if any, with the appropriate Governmental Authority. FEI shall cooperate with Veeco in connection with the matters contemplated by this Section 5.10(a)(ii), which cooperation shall include, without limitation, providing information and executing and delivering documents, in connection with Veeco's or any of the Veeco Entities' obligations under this Section 5.10(a)(ii).

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(b) At or prior to the filing of the Form S-4 Registration Statement, FEI and Veeco shall execute and deliver to Kaye Scholer LLP, counsel to Veeco, and to Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel to FEI, tax representation letters in form and substance satisfactory to such counsel. Further, Veeco, Acquisition and FEI shall execute and deliver to Kaye Scholer LLP and to Wilson Sonsini Goodrich & Rosati, Professional Corporation, tax representation letters substantially identical to the tax representation letters delivered pursuant to the immediately preceding sentence dated as of the Closing Date, and modified to reflect changes in law, if any, and such other matters as Kaye Scholer LLP and Wilson Sonsini Goodrich & Rosati, Professional Corporation, may reasonably request. Following delivery of the tax representation letters contemplated pursuant to the first sentence of this Section 5.10(b), each of Veeco and FEI shall use its reasonable best efforts to cause Kaye Scholer LLP to deliver to Veeco, and Wilson Sonsini Goodrich & Rosati, Professional Corporation, to deliver to FEI, a tax opinion with respect to such matters as are

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appropriate for description, and inclusion as exhibits, in the Form S-4 Registration Statement and the Joint Proxy Statement, such opinions to be substantially similar in substance. In rendering such opinions, each of such counsel shall be entitled to rely on the tax representation letters referred to in this Section 5.10(b).

(c) None of Veeco, Acquisition or FEI will take any action prior or subsequent to the Effective Time that would reasonably be expected to cause the Merger to fail to qualify as a reorganization as described in Section 368(a) of the Code.

5.11 Letters of the Parties' Accountants.

(a) FEI shall use all reasonable efforts to cause to be delivered to Veeco a letter of Deloitte & Touche LLP, independent public accountant for FEI, dated no more than two business days before the date on which the Form S-4 Registration Statement becomes effective (and reasonably satisfactory in form and substance to Veeco), that is customary in scope and substance for letters delivered by independent public accountants in connection with registration statements similar to the Form S-4 Registration Statement.

(b) Veeco shall use all reasonable efforts to cause to be delivered to FEI a letter of Ernst & Young LLP, independent public accountant for Veeco, dated no more than two business days before the date on which the Form S-4 Registration Statement becomes effective (and reasonably satisfactory in form and substance to FEI), that is customary in scope and substance for letters delivered by independent public accountants in connection with registration statements similar to the Form S-4 Registration Statement.

5.12 Listing. Veeco shall cause the Veeco Shares being issued, and those being reserved for issuance, in the Merger to be approved for listing (subject to notice of issuance) on NASDAQ.

5.13 Board of Directors; Committees; Officers; Headquarters.

(a) Veeco shall take all actions necessary such that, effective as of immediately following the Effective Time, Veeco's Board of Directors shall consist of thirteen (13) members, seven (7) of whom shall be nominated by Veeco from the current members of its board of directors, five (5) of whom shall be nominated by FEI from the current members of its board of directors, and one (1) of whom shall be nominated by Philips in accordance with the terms of the Veeco Investor Agreement. In addition, Veeco shall take all actions necessary such that, effective as of immediately following the Effective Time, two (2) of the Veeco nominees and two (2) of the FEI nominees shall serve as Class III directors for terms expiring at Veeco's 2003 Annual Meeting of the Stockholders, two (2) of the Veeco nominees and two (2) of the FEI nominees shall serve as Class I directors for terms expiring at Veeco's 2004 Annual Meeting of the Stockholders and three (3) of the Veeco nominees, one (1) of the FEI nominees and the Philips nominee shall serve as Class II directors for terms expiring at Veeco's 2005 Annual Meeting of the Stockholders.

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(b) Veeco shall cause, as of the Effective Time, the individuals set forth on Schedule 5.13(b) to be appointed to the position(s) set forth opposite their respective names.

(c) Prior to the Effective Time, Veeco shall use commercially reasonable efforts to enter into employment agreements, to be effective as of the Effective Time, with such senior officers of Veeco and FEI as are mutually agreed by Veeco and FEI, which employment agreements shall have terms acceptable to the board of directors of each of Veeco and FEI.

(d) Following the Effective Time, the headquarters for Veeco FEI Inc. shall be located at the current headquarters of Veeco.

5.14 Notice of Breach; Disclosure. Each party shall promptly notify the other of (i) any event, condition or circumstance of which such party becomes aware after the date hereof and prior to the Closing Date that would constitute a violation or breach of this Merger Agreement (or a breach of any representation or warranty contained herein) or, if the same were to continue to exist as of the Closing Date, would constitute the non-satisfaction of any of the conditions set forth in Article VI, VII or VIII hereof, as the case may be or (ii) any event, occurrence, transaction, or other item of which such party becomes aware which would have been required to have been disclosed on either the FEI Disclosure Schedule or the Veeco Disclosure Schedule or any statement delivered hereunder had such event, occurrence, transaction or item existed as of the date hereof. The disclosure of any matter as provided in this Section 5.14 shall not limit or otherwise affect the remedies available hereunder to the party receiving such notice.

5.15 Payment of Indebtedness by Affiliates. FEI shall use commercially reasonable efforts to cause all indebtedness owed to any FEI Entity by any FEI Affiliate to be paid in full prior to Closing, other than as provided in Sections 3.02(b) and 3.08 of the FEI Disclosure Schedule, and advances of, or reimbursements for, expenses incurred or anticipated to be incurred by officers, directors and employees of the FEI Entities in the ordinary course of business and in compliance with the relevant FEI Entity's policy, if any, relating thereto.

5.16 No Solicitation FEI.

(a) During the period commencing with the execution of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, FEI shall not directly or indirectly, and shall use reasonable best efforts to cause the other FEI Entities and their respective Representatives, employees and agents not directly or indirectly, to (i) solicit, initiate, encourage, induce or facilitate the making, submission or announcement of any FEI Acquisition Proposal, (ii) furnish any information regarding any of the FEI Entities to any Person in connection with or in response to a FEI Acquisition Proposal or an inquiry or indication of interest that could reasonably be expected to lead to a FEI Acquisition Proposal, (iii) engage in discussions or negotiations with any Person with respect to any FEI Acquisition Proposal, (iv) approve, endorse or recommend any FEI Acquisition Proposal or (v) enter into any letter of intent or similar document or any Contract contemplating or otherwise relating to any FEI Acquisition Transaction; *provided, however*, that prior to the approval of the Merger by the Required FEI Stockholder Vote, this Section 5.16(a) shall not prohibit FEI from engaging in discussions and taking such other actions as may be reasonably required for the purpose of becoming informed with respect to a *bona fide* unsolicited written FEI Acquisition Proposal that is submitted to FEI (and not withdrawn) if the Board of Directors of FEI reasonably determines in good faith after due consideration that such FEI Acquisition Proposal would reasonably be likely to result in a Superior FEI Proposal and (1) neither FEI nor any Representative of any of the FEI Entities shall have violated any of the restrictions set forth in this Section 5.16, (2) the Board of Directors of FEI concludes in good faith that failure to take such action would be reasonably likely to result in a breach of the fiduciary obligations of the Board of Directors of FEI to FEI's stockholders under applicable Law, after consultation with its

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outside legal counsel, and (3) prior to any such discussion or other action FEI receives from such Person an executed confidentiality agreement containing customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such Person by or on behalf of FEI.

(b) FEI shall promptly advise Veeco of any FEI Acquisition Proposal (including the identity of the Person making or submitting such FEI Acquisition Proposal and the terms thereof) that is made or submitted by any Person after the date of this Merger Agreement. FEI shall keep Veeco reasonably informed with respect to the status of any such FEI Acquisition Proposal.

(c) On the date hereof, FEI shall immediately cease and cause to be terminated any existing discussions with any Person that relate to any FEI Acquisition Proposal or FEI Acquisition Transaction.

(d) FEI agrees not to release or permit the release of any Person from, or to waive or permit the waiver of any provision of, any confidentiality, "standstill" or similar agreement to which any of the FEI Entities is a party, and will use its best efforts to enforce or cause to be enforced each such agreement at the request of Veeco. FEI also will promptly request each Person that has executed, within 12 months prior to the date of this Merger Agreement, a confidentiality agreement in connection with its consideration of a possible FEI Acquisition Transaction, to return all confidential information heretofore furnished to such Person by or on behalf of any of the FEI Entities.

5.17 No Solicitation Veeco.

(a) During the period commencing with the execution of this Merger Agreement and continuing until the earlier to occur of the termination of this Merger Agreement pursuant to its terms and the Closing Date, Veeco shall not directly or indirectly, and shall use reasonable best efforts to cause the other Veeco Entities and their respective Representatives, employees and agents not directly or indirectly, to (i) solicit, initiate, encourage, induce or facilitate the making, submission or announcement of any Veeco Acquisition Proposal, (ii) furnish any information regarding any of the Veeco Entities to any Person in connection with or in response to a Veeco Acquisition Proposal or an inquiry or indication of interest that could reasonably be expected to lead to a Veeco Acquisition Proposal, (iii) engage in discussions or negotiations with any Person with respect to any Veeco Acquisition Proposal, (iv) approve, endorse or recommend any Veeco Acquisition Proposal or (v) enter into any letter of intent or similar document or any Contract contemplating or otherwise relating to any Veeco Acquisition Transaction; *provided, however*, that prior to the approval of the issuance of the Veeco Shares in the Merger by the Required Veeco Stockholder Vote, this Section 5.17(a) shall not prohibit Veeco from engaging in discussions and taking such other actions as may be reasonably required for the purpose of becoming informed with respect to a *bona fide* unsolicited written Veeco Acquisition Proposal that is submitted to Veeco (and not withdrawn) if the Board of Directors of Veeco reasonably determines in good faith after due consideration that such Veeco Acquisition Proposal would reasonably be likely to result in a Superior Veeco Proposal and (1) neither Veeco nor any Representative of any of the Veeco Entities shall have violated any of the restrictions set forth in this Section 5.17, (2) the Board of Directors of Veeco concludes in good faith that failure to take such action would be reasonably likely to result in a breach of the fiduciary obligations of the Board of Directors of Veeco to Veeco's stockholders under applicable Law, after consultation with its outside legal counsel, and (3) prior to any such discussion or other action Veeco

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receives from such Person an executed confidentiality agreement containing customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such Person by or on behalf of Veeco.

(b) Veeco shall promptly advise FEI of any Veeco Acquisition Proposal (including the identity of the Person making or submitting such Veeco Acquisition Proposal and the terms thereof) that is

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made or submitted by any Person after the date of this Merger Agreement. Veeco shall keep FEI reasonably informed with respect to the status of any such Veeco Acquisition Proposal.

(c) On the date hereof, Veeco shall immediately cease and cause to be terminated any existing discussions with any Person that relate to any Veeco Acquisition Proposal or Veeco Acquisition Transaction.

(d) Veeco agrees not to release or permit the release of any Person from, or to waive or permit the waiver of any provision of, any confidentiality, "standstill" or similar agreement to which any of the Veeco Entities is a party, and will use its best efforts to enforce or cause to be enforced each such agreement at the request of FEI. Veeco also will promptly request each Person that has executed, within 12 months prior to the date of this Merger Agreement, a confidentiality agreement in connection with its consideration of a possible Veeco Acquisition Transaction, to return all confidential information heretofore furnished to such Person by or on behalf of any of the Veeco Entities.

5.18 Blue Sky Laws. Veeco shall take such steps as may be reasonably necessary to comply with the securities and blue sky laws of all jurisdictions which are applicable to the issuance of Veeco Shares in connection with the Merger. FEI shall use its reasonable efforts to assist Veeco as may be necessary to comply with the securities and blue sky laws of all jurisdictions which are applicable in connection with the issuance of Veeco Shares in connection with the Merger.

5.19 Additional Agreements. Subject to Section 5.04(b), Veeco and FEI shall each use reasonable best efforts to take, or cause to be taken, all actions necessary to consummate the Merger and make effective the other transactions contemplated by this Merger Agreement, as promptly as practicable following the execution and delivery of this Merger Agreement. Without limiting the generality of the foregoing, but subject to Section 5.04(b), each party to this Merger Agreement (i) shall make all filings (if any) and give all notices (if any) required to be made and given by such party in connection with the Merger and the other transactions contemplated by this Merger Agreement, and (ii) shall use reasonable best efforts to lift any restraint, injunction or other legal bar to the Merger. Each of Veeco and FEI shall promptly deliver to the other a copy of each such filing made, each such notice given and each such Consent obtained by it following the date hereof.

5.20 Disclosure. Veeco and FEI shall consult with each other before issuing any press release or otherwise making any public statement with respect to the Merger or any of the other transactions contemplated by this Merger Agreement. Without limiting the generality of the foregoing, neither Veeco nor FEI shall, and neither Veeco nor FEI shall permit any of its Representatives to, make any disclosure regarding the Merger or any of the other transactions contemplated by this Merger Agreement unless (a) the other party shall have approved such disclosure or (b) such party shall have been advised by its outside legal counsel that such disclosure is required by applicable Law.

5.21 Registration Statement: Joint Proxy Statement. As promptly as practicable after the date of this Merger Agreement, Veeco and FEI shall prepare and cause to be filed with the SEC the Joint Proxy Statement and Veeco shall prepare and cause to be filed with the SEC the Form S-4 Registration Statement, in which the Joint Proxy Statement will be included as a prospectus. Each of Veeco and FEI shall use reasonable best efforts to cause the Form S-4 Registration Statement and the Joint Proxy Statement to comply with the rules and regulations promulgated by the SEC, to respond promptly to any comments of the SEC or its staff and to have the Form S-4 Registration Statement declared effective under the Securities Act as promptly as practicable after it is filed with the SEC. Each of Veeco and FEI shall, as promptly as practicable after receipt thereof, provide the other party with copies of any written comments and advise each other of any oral comments with respect to the Joint Proxy Statement or Form S-4 Registration Statement. Veeco will use reasonable best efforts to cause the Joint Proxy Statement to be mailed to Veeco's stockholders, and FEI will use reasonable best efforts to cause the Joint Proxy Statement to be mailed to FEI's stockholders, as promptly as

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practicable after the Form S-4 Registration Statement is declared effective under the Securities Act. FEI and Veeco shall promptly furnish to one another all information concerning the FEI Entities and FEI's stockholders and Veeco and Veeco's stockholders that may be required or reasonably requested in connection with any action contemplated by this Section 5.21. If any event relating to any of the FEI Entities occurs, or if FEI becomes aware of any information, that should be disclosed in an amendment or supplement to the Form S-4 Registration Statement or

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the Joint Proxy Statement, then FEI shall promptly inform Veeco thereof and shall cooperate with Veeco in filing such amendment or supplement with the SEC and provide Veeco with a reasonable opportunity to comment on any such amendment or supplement prior to filing with the SEC and, if appropriate, shall cooperate with Veeco in mailing such amendment or supplement to the stockholders of FEI. If any event relating to any of the Veeco Entities occurs, or if Veeco becomes aware of any information, that should be disclosed in an amendment or supplement to the Form S-4 Registration Statement or the Joint Proxy Statement, then Veeco shall promptly inform FEI thereof and shall cooperate with FEI in filing such amendment or supplement with the SEC and provide FEI with a reasonable opportunity to comment on any such amendment or supplement prior to filing with the SEC and, if appropriate, cooperate with FEI in mailing such amendment or supplement to the stockholders of Veeco. Notwithstanding any other provision herein to the contrary, no amendment or supplement (including by incorporation by reference) to the Joint Proxy Statement or the Form S-4 Registration Statement shall be made without the approval of both Veeco and FEI, which approval shall not be unreasonably withheld or delayed; *provided*, that, with respect to documents filed by a party hereto that are incorporated by reference in the Form S-4 Registration Statement or Joint Proxy Statement, this right of approval shall apply only with respect to information relating to the other party or its business, financial condition, or results of operations; and *provided, further*, that Veeco, in connection with a change in the Veeco Board Recommendation (to the extent permitted by Section 5.23(c) hereof), and FEI, in connection with a change in the FEI Board Recommendation (to the extent permitted by Section 5.22(c) hereof), may amend or supplement the Joint Proxy Statement or Form S-4 Registration Statement (including by incorporation by reference) pursuant to a Qualifying Amendment to effect such a change, and in such event, this right of approval shall apply only with respect to information relating to the other party or its business, financial condition or results of operations, and shall be subject to the right of each party to have its Board of Directors' deliberations and conclusions be accurately described. Each party hereto will advise the other party, promptly after it receives notice thereof, of the time when the Form S-4 Registration Statement has become effective, the issuance of any stop order, the suspension of the qualification of the Veeco Shares issuable in connection with the Merger for offering or sale in any jurisdiction, or any request by the SEC for amendment of the Joint Proxy Statement or Form S-4 Registration Statement. If, at any time prior to the Effective Time, any information relating to Veeco or FEI, or any of their respective Affiliates, officers or directors, is discovered by Veeco or FEI and such information should be set forth in an amendment or supplement to (i) the Form S-4 Registration Statement so that such document would not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading or (ii) the Joint Proxy Statement so that such document would not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not false or misleading, or omit to state any material fact necessary to correct any statement in any earlier communication with respect to the solicitation of proxies for the FEI Stockholders Meeting or the Veeco Stockholders Meeting, which has become false or misleading, the party hereto discovering such information shall promptly notify the other parties hereto and, to the extent required by Law, an appropriate amendment or supplement describing such information shall be promptly filed with the SEC and disseminated to the stockholders of Veeco and FEI.

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5.22 FEI Stockholders' Meeting.

(a) FEI shall take all action necessary under all applicable Laws to call, give notice of and hold a meeting of the holders of FEI Common Stock to vote on a proposal to approve the Merger (the "FEI Stockholders' Meeting"). The FEI Stockholders' Meeting shall be held as promptly as practicable after the Form S-4 Registration Statement is declared effective under the Securities Act on a date or dates determined in accordance with the mutual agreement of FEI and Veeco, but in no event later than 45 days after the Form S-4 Registration Statement is declared effective under the Securities Act, unless a stop order shall have been issued by the SEC with respect to the Form S-4 Registration Statement or an injunction shall have been issued by a court of competent jurisdiction or other appropriate Governmental Authority to restrain or prohibit the consummation of the Merger. FEI shall ensure that all proxies solicited in connection with the FEI Stockholders' Meeting are solicited in compliance with all applicable Laws.

(b) Subject to Section 5.22(c): (i) the Joint Proxy Statement shall include a statement to the effect that the Board of Directors of FEI recommends that FEI's stockholders vote to approve the Merger at the FEI Stockholders' Meeting (such recommendation of FEI's Board of Directors that FEI's stockholders vote to approve the Merger being referred to as the "FEI Board Recommendation"); and (ii) the FEI Board Recommendation shall not be withdrawn or modified in a manner adverse to Veeco, and no resolution by the Board of Directors of FEI or any committee thereof to withdraw or modify the FEI Board Recommendation in a manner adverse to Veeco shall be adopted.

(c) Notwithstanding anything to the contrary contained in Section 5.22(b), at any time prior to the approval of the Merger by the Required FEI Stockholder Vote, the FEI Board Recommendation may be withdrawn or modified in a manner adverse to Veeco if: (i) a FEI Acquisition Proposal is made and is not withdrawn; (ii) FEI promptly provides Veeco prior written notice of any meeting of FEI's Board of Directors at which such Board of Directors will consider and determine whether such offer is a Superior FEI Proposal; (iii) FEI's Board of Directors determines in good faith that such offer constitutes a Superior FEI Proposal (after consultation with an independent financial advisor of nationally recognized reputation); (iv) FEI's Board of Directors determines in good faith, after consultation with FEI's outside legal counsel, that, in light of such Superior FEI Proposal, the failure to withdraw or modify the FEI Board Recommendation would be reasonably likely to result in a breach of the fiduciary obligations of FEI's Board of Directors to

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FEI's stockholders under applicable Law; and (v) neither FEI nor any of its Representatives shall have materially violated any of the restrictions set forth in Section 5.16.

(d) FEI's obligation to call, give notice of and hold the FEI Stockholders' Meeting in accordance with Section 5.22(a) hereof shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior FEI Proposal or other FEI Acquisition Proposal, or by any withdrawal or modification of the FEI Board Recommendation.

5.23 Veeco Stockholders' Meeting.

(a) Veeco shall take all action necessary under all applicable Laws to call, give notice of and hold a meeting of the holders of Veeco Shares to vote on the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment (the "Veeco Stockholders' Meeting"). The Veeco Stockholders' Meeting shall be held as promptly as practicable after the Form S-4 Registration Statement is declared effective under the Securities Act on a date determined in accordance with the mutual agreement of FEI and Veeco (but on a date no more than two business days after the FEI Stockholders' Meeting). Veeco shall ensure that all proxies solicited in connection with the Veeco Stockholders' Meeting are solicited in compliance with all applicable Laws.

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(b) Subject to Section 5.23(c): (i) the Joint Proxy Statement shall include a statement to the effect that the Board of Directors of Veeco recommends that Veeco's stockholders vote to approve the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment (such recommendation of Veeco's Board of Directors that Veeco's stockholders vote to approve the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment being referred to as the "Veeco Board Recommendation"); and (ii) the Veeco Board Recommendation shall not be withdrawn or modified in a manner adverse to FEI, and no resolution by the Board of Directors of Veeco or any committee thereof to withdraw or modify the Veeco Board Recommendation in a manner adverse to FEI shall be adopted.

(c) Notwithstanding anything to the contrary contained in Section 5.23(b), at any time prior to the approval of the issuance of the Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment by the Required Veeco Stockholder Vote, the Veeco Board Recommendation may be withdrawn or modified in a manner adverse to FEI if: (i) a Veeco Acquisition Proposal is made and is not withdrawn; (ii) Veeco promptly provides FEI prior written notice of any meeting of Veeco's Board of Directors at which such Board of Directors will consider and determine whether such offer is a Superior Veeco Proposal; (iii) Veeco's Board of Directors determines in good faith that such offer constitutes a Superior Veeco Proposal (after consultation with an independent financial advisor of nationally recognized reputation); (iv) Veeco's Board of Directors determines in good faith, after consultation with Veeco's outside legal counsel, that, in light of such Superior Veeco Proposal, the failure to withdraw or modify the Veeco Board Recommendation would be reasonably likely to result in a breach of the fiduciary obligations of Veeco's Board of Directors to Veeco's stockholders under applicable Law; and (v) neither Veeco nor any of its Representatives shall have materially violated any of the restrictions set forth in Section 5.17.

(d) Veeco's obligation to call, give notice of and hold the Veeco Stockholders' Meeting in accordance with Section 5.23(a) hereof shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior Veeco Proposal or other Veeco Acquisition Proposal, or by any withdrawal or modification of the Veeco Board Recommendation.

5.24 Section 16 Matters. Prior to the Effective Time, the Board of Directors of each of FEI and Veeco shall adopt a resolution consistent with the interpretative guidance of the SEC, if any, to the effect that (i) the assumption of FEI Options held by FEI Insiders (as defined below) pursuant to this Agreement, (ii) the acquisition or exercise of other rights to receive or purchase equity securities of FEI or Veeco pursuant to agreements entered into in connection with the execution and delivery of this Agreement, and (iii) the receipt by FEI Insiders of Veeco Shares in exchange for FEI Common Stock pursuant to the Merger, shall be exempt transactions for purposes of Section 16 of the Exchange Act by any officer or director (or any entity which may be deemed to be a "director by deputization" as a result of its relationship with a director of FEI) of FEI who may become a covered person for purposes of Section 16 of the Exchange Act (a "FEI Insider").

5.25 Acquisition Compliance. Veeco shall cause Acquisition to comply with all of Acquisition's obligations under or relating to this Merger Agreement. Acquisition shall not engage in any business that is not in connection with the Merger pursuant to this Merger Agreement.

5.26 Conveyance Taxes. Veeco, Acquisition and FEI shall cooperate in the preparation, execution and filing of all returns, questionnaires, applications or other documents regarding any real property transfer or gains, sales, use, transfer, value added, stock transfer or stamp taxes, any transfer, recording, registration or other fees or any similar taxes, which become payable in connection with the transactions contemplated by this Merger Agreement that are required or permitted to be filed on or before the Effective Time. All such taxes will be paid by the party bearing the legal responsibility for such payment.

VI. CONDITIONS PRECEDENT TO THE OBLIGATIONS OF THE PARTIES

The obligations of the parties to enter into and complete the Closing are conditioned upon the satisfaction or waiver in writing by the parties, on or before the Closing Date, of the following conditions:

6.01 Effectiveness of Registration Statement. The Form S-4 Registration Statement shall have become effective in accordance with the provisions of the Securities Act, and no stop order shall have been issued, and no proceeding for that purpose shall have been initiated or be Threatened, by the SEC with respect to the Form S-4 Registration Statement.

6.02 Stockholder Approval. The Merger shall have been duly approved by the Required FEI Stockholder Vote and the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment shall have been duly approved by the Required Veeco Stockholder Vote.

6.03 Litigation. No suit, action or other Legal Proceeding by any Governmental Authority shall be pending in which it is sought to restrain or prohibit the consummation of the transactions contemplated hereby, and no injunction or final judgment shall have been entered on the Closing Date before any court or Governmental Authority restraining or prohibiting the consummation of the transactions contemplated hereby.

6.04 No Order. No Governmental Authority shall have enacted, issued, promulgated, enforced or entered any statute, rule, regulation or executive order (whether temporary, preliminary or permanent), which is in effect and which has the effect of making the Merger illegal or otherwise prohibiting consummation of the Merger.

6.05 HSR Act. (a) The waiting period applicable to the consummation of the Merger under the HSR Act shall have expired or been terminated, and (b) any similar waiting period under any applicable foreign antitrust Law or regulation to the consummation of the Merger shall have expired or been terminated, and any Consent required under any applicable foreign antitrust Law or regulation shall have been obtained, except where the failure for such waiting period to have expired or been terminated or for such Consent to have been obtained would not have a Material Adverse Effect on Veeco (following the Merger).

6.06 Listing. The Veeco Shares to be issued in the Merger and such other shares required to be reserved for issuance in connection with the Merger shall be approved for listing (subject to notice of issuance) on the Nasdaq National Market.

VII. CONDITIONS PRECEDENT TO VEECO'S AND ACQUISITION'S OBLIGATIONS

The obligations of Veeco and Acquisition to enter into and complete the Closing are conditioned upon the satisfaction or waiver in writing by Veeco (on behalf of Veeco and Acquisition), on or before the Closing Date, of all of the following conditions:

7.01 Representations and Warranties. The representations and warranties of FEI contained in this Merger Agreement shall (i) be true and correct as of the date of this Merger Agreement, except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on FEI and (ii) be true and correct as of the Closing Date with the same force and effect as if made on and as of the Closing Date (except to the extent expressly made as of an earlier date), except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on FEI; *provided, however*, that, for purposes of determining the accuracy of such representations and warranties as of the date of this Merger Agreement or as of the Closing Date, (i) all "Material Adverse Effect" qualifications and other materiality qualifications and any similar qualifications contained in such representations and warranties shall be disregarded and (ii) any update of or modification to the FEI Disclosure Schedule hereto made or purported to have been made after the date of this Merger Agreement shall be disregarded.

7.02 Performance of Covenants. FEI shall have performed and complied in all material respects with all of the agreements, covenants and conditions required by this Merger Agreement to be performed and complied with by it prior to or on the Closing Date.

7.03 Material Adverse Effect. There shall not have been any Material Adverse Effect with respect to FEI from the date hereof to the Closing Date.

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7.04 Agreements and Documents. Veeco and Acquisition shall have received the following agreements and documents, each of which shall be in full force and effect:

(a) a legal opinion of Kaye Scholer LLP, counsel to Veeco, dated as of the Closing Date and addressed to Veeco, to the effect that the Merger will qualify as a reorganization within the meaning of Section 368(a) of the Code (it being understood that in rendering such opinion, Kaye Scholer LLP may rely upon tax representation letters, dated as of the Closing Date, and substantially identical to the tax representation letters referred to in Section 5.10(b), modified to reflect changes in law, if any, and such other matters as Kaye Scholer LLP and Wilson Sonsini Goodrich & Rosati, Professional Corporation, may reasonably request); and

(b) a certificate, dated the Closing Date, executed on behalf of FEI by its Chief Executive Officer, confirming that the conditions set forth in Sections 7.01 and 7.02 hereof have been duly satisfied.

VIII. CONDITIONS PRECEDENT TO FEI'S OBLIGATIONS.

FEI's obligation to enter into and complete the Closing is conditioned upon the satisfaction or waiver in writing by FEI, on or before the Closing Date, of all of the following conditions:

8.01 Representations and Warranties. The representations and warranties of Veeco and Acquisition contained in this Merger Agreement shall (i) be true and correct as of the date of this Merger Agreement, except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on Veeco and (ii) be true and correct as of the Closing Date with the same force and effect as if made on and as of the Closing Date (except to the extent expressly made as of an earlier date), except where the failure to be so true and correct would not, in the aggregate, reasonably be expected to have a Material Adverse Effect on Veeco; *provided, however*, that, for purposes of determining the accuracy of such representations and warranties as of the date of this Merger Agreement or as of the Closing Date, (i) all "Material Adverse Effect" qualifications and other materiality qualifications and any similar qualifications contained in such representations and warranties shall be disregarded and (ii) any update of or modification to the Veeco Disclosure Schedule hereto made or purported to have been made after the date of this Merger Agreement shall be disregarded.

8.02 Performance of Covenants. Each of Veeco and Acquisition shall have performed and complied in all material respects with all of the agreements, covenants and conditions required by this Merger Agreement to be performed and complied with by them prior to or on the Closing Date.

8.03 Material Adverse Effect. There shall not have been any Material Adverse Effect with respect to Veeco from the date hereof to the Closing Date.

8.04 Documents. FEI shall have received the following documents:

(a) a legal opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel to FEI, dated as of the Closing Date, to the effect that the Merger will qualify as a reorganization within the meaning of Section 368(a) of the Code (it being understood that in rendering such opinion, Wilson Sonsini Goodrich & Rosati may rely upon tax representation letters dated as of the Closing Date, and substantially identical to the tax representation letters referred to in Section 5.10(b), modified to reflect changes in law, if any, and such other matters as Kaye Scholer

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LLP and Wilson Sonsini Goodrich & Rosati, Professional Corporation, may reasonably request); and

(b) a certificate, dated the Closing Date, executed on behalf of Veeco by its Chief Executive Officer, confirming that the conditions set forth in Sections 8.01 and 8.02 hereof have been duly satisfied.

IX. TERMINATION.

9.01 Termination. This Merger Agreement may be terminated prior to the Effective Time (whether before or after approval of the Merger by FEI's stockholders and whether before or after approval of the issuance of Veeco Shares in the Merger by Veeco's stockholders):

(a) by mutual written consent of Veeco and FEI;

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(b) by either Veeco or FEI if the Merger shall not have been consummated by December 31, 2002 (the "Termination Date") or, if later, the day following the last day of any cure period under Section 9.01(h) or 9.01(i) (but in no event beyond January 30, 2003) (unless the failure to consummate the Merger is significantly attributable to a failure on the part of the party seeking to terminate this Merger Agreement to perform any material obligation required to be performed by such party at or prior to the Effective Time);

(c) by either Veeco or FEI if a court of competent jurisdiction or other Governmental Authority shall have issued a final and nonappealable order, decree or ruling, or shall have taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the Merger;

(d) by either Veeco or FEI if (i) the FEI Stockholders' Meeting (including any adjournments and postponements thereof) shall have been held and completed and FEI's stockholders shall have taken a final vote on a proposal to approve the Merger, and (ii) the Merger shall not have been approved at such meeting by the Required FEI Stockholder Vote (and shall not have been adopted at any adjournment or postponement thereof); *provided, however*, that (A) a party shall not be permitted to terminate this Merger Agreement pursuant to this Section 9.01(d) if the failure to obtain such stockholder approval is attributable to a failure on the part of such party to perform any material obligation required to be performed by such party at or prior to the Effective Time, and (B) FEI shall not be permitted to terminate this Merger Agreement pursuant to this Section 9.01(d) unless FEI shall have paid to Veeco any fee required to be paid to Veeco pursuant to Section 9.03(b);

(e) by either Veeco or FEI if (i) the Veeco Stockholders' Meeting (including any adjournments and postponements thereof) shall have been held and completed and Veeco's stockholders shall have taken a final vote on the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment, and (ii) the issuance of Veeco Shares in the Merger or the Veeco Certificate of Incorporation Amendment shall not have been approved at such meeting (and shall not have been approved at any adjournment or postponement thereof) by the Required Veeco Stockholder Vote; *provided, however*, that (A) a party shall not be permitted to terminate this Merger Agreement pursuant to this Section 9.01(e) if the failure to obtain such stockholder vote is attributable to a failure on the part of the party seeking to terminate this Merger Agreement to perform any material obligation required to be performed by such party at or prior to the Effective Time, and (B) Veeco shall not be permitted to terminate this Merger Agreement pursuant to this Section 9.01(e) unless Veeco shall have paid to FEI any fee required to be paid to FEI pursuant to Section 9.03(b);

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(f) by Veeco (at any time prior to the approval of the Merger by the Required FEI Stockholder Vote) if a FEI Triggering Event shall have occurred;

(g) by FEI (at any time prior to the approval of the issuance of Veeco Shares in the Merger and the Veeco Certificate of Incorporation Amendment) by the Required Veeco Stockholder Vote) if a Veeco Triggering Event shall have occurred;

(h) by Veeco if (i) any of FEI's representations and warranties contained in this Merger Agreement shall be inaccurate as of the date of this Merger Agreement, or shall have become inaccurate as of a date subsequent to the date of this Merger Agreement (as if made on such subsequent date, except to the extent expressly made as of an earlier date) and such breach has not been cured within 30 days after notice thereof, such that the condition set forth in Section 7.01 would not be satisfied, or (ii) any of FEI's covenants or agreements contained in this Merger Agreement shall have been breached (and any such breach shall not have been cured within 30 days after notice thereof) such that the condition set forth in Section 7.02 would not be satisfied; or

(i) by FEI if (i) any of Veeco's representations and warranties contained in this Merger Agreement shall be inaccurate as of the date of this Merger Agreement, or shall have become inaccurate as of a date subsequent to the date of this Merger Agreement (as if made on such subsequent date, except to the extent expressly made as of an earlier date) and such breach has not been cured within 30 days after notice thereof, such that the condition set forth in Section 8.01 would not be satisfied, or (ii) if any of Veeco's covenants or agreements contained in this Merger Agreement shall have been breached (and any such breach shall not have been cured within 30 days after notice thereof) such that the condition set forth in Section 8.02 would not be satisfied.

9.02 Effect of Termination. In the event of the termination of this Merger Agreement as provided in Section 9.01, this Merger Agreement shall be of no further force or effect; *provided, however*, that (i) Sections 9.02 and 9.03 and Article X shall survive the termination of this Merger Agreement and shall remain in full force and effect, and (ii) the termination of this Merger Agreement shall not relieve any party from any liability for any willful breach of any representation, warranty or covenant contained in this Merger Agreement.

9.03 Expenses: Termination Fees.

(a) Except as set forth in this Section 9.03, all fees and expenses incurred in connection with this Merger Agreement and the transactions contemplated by this Merger Agreement shall be paid by the party incurring such expenses, whether or not the Merger is consummated; *provided, however*, that Veeco and FEI shall share equally all fees and expenses, other than attorneys' fees, incurred in connection with (A) the filing, printing and mailing of the Form S-4 Registration Statement and the Joint Proxy Statement and any amendments or supplements thereto and (B) the filing by the parties hereto of the premerger notification and report forms relating to the Merger under the HSR Act and the filing of any notice or other document under any applicable foreign antitrust law or regulation.

(b) Termination Fees.

(i) In the event that this Merger Agreement is terminated by Veeco pursuant to Section 9.01(h) or FEI pursuant to Section 9.01(i), then the non-terminating Party shall make a nonrefundable cash payment to the other Party, within two business days after such termination, in an amount equal to the aggregate amount of all fees and reasonable, documented, out-of-pocket expenses (the "Transaction Expenses") (including, with respect to fees, all attorneys' fees, accountants' fees, financial advisory fees and filing fees) that have been paid or that may become payable by or on behalf of that Party in connection with the

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preparation and negotiation of this Merger Agreement and otherwise in connection with the Merger (such cash payment shall not exceed, in the aggregate, five million dollars (\$5,000,000)).

(ii) In the event that this Merger Agreement is terminated by FEI or Veeco pursuant to Section 9.01(d) and at or prior to the time of such termination a FEI Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, FEI shall pay to Veeco within two business days after demand by Veeco an amount equal to Veeco's Transaction Expenses, by wire transfer of immediately available funds to an account designated in writing by Veeco.

(iii) In the event that this Merger Agreement is terminated by FEI or Veeco pursuant to Section 9.01(e) and at or prior to the time of such termination a Veeco Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, Veeco shall pay to FEI within two business days after demand by FEI an amount equal to FEI's Transaction Expenses, by wire transfer of immediately available funds to an account designated in writing by FEI.

(iv) In the event that this Merger Agreement is terminated by FEI pursuant to Section 9.01(g) or by Veeco pursuant to Section 9.01(f), the non-terminating Party shall pay to the terminating party within two business days after such termination a fee equal to thirty million dollars (\$30,000,000) by wire transfer of immediately available funds to an account designated in writing by the recipient (the "Termination Fee"); *provided, however*, that if this Merger Agreement is terminated (A) by FEI pursuant to Section 9.01(g) because an event specified in clause (x) of the definition of Veeco Triggering Event has occurred, the Termination Fee shall be payable only if within 12 months following the termination of this Merger Agreement, either a Veeco Acquisition Transaction is consummated, or Veeco enters into a letter of intent or Contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following the termination of this Merger Agreement or (B) by Veeco pursuant to Section 9.01(f) because an event specified in clause (x) of the definition of FEI Triggering Event has occurred, the Termination Fee shall be payable only if within 12 months following the termination of this Merger Agreement, either a FEI Acquisition Transaction is consummated, or FEI enters into a letter of intent or Contract providing for a FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following the termination of this Merger Agreement. For purposes of this Section 9.03(b)(iv), the terms "FEI Acquisition Transaction" and "Veeco Acquisition Transaction" shall have the meanings ascribed to such terms in Article I, except that references to "15%" therein shall be deemed to read "40%."

(v) In the event that this Merger Agreement is terminated by FEI or Veeco pursuant to Section 9.01(d) and (A) at or prior to the time of such termination a FEI Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, and (B) within 12 months following the termination of this Merger Agreement, either a FEI Acquisition Transaction is consummated, or FEI enters into a letter of intent or Contract providing for a FEI Acquisition Transaction and such FEI Acquisition Transaction is consummated within 24 months following the termination of this Merger Agreement, FEI shall pay to Veeco within two business days after demand by Veeco a fee equal to the Termination Fee, by wire transfer of immediately available funds to an account designated in

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writing by Veeco. For purposes of this Section 9.03(b)(v), the term "FEI Acquisition Transaction" shall have the meaning ascribed to such term in Article I, except that references to "15%" therein shall be deemed to read "40%."

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(vi) In the event that this Merger Agreement is terminated by FEI or Veeco pursuant to Section 9.01(e) and (A) at or prior to the time of such termination a Veeco Acquisition Proposal shall have been publicly disclosed, announced, commenced, submitted or made and not subsequently unconditionally withdrawn, and (B) within 12 months following the termination of this Merger Agreement, either a Veeco Acquisition Transaction is consummated, or Veeco enters into a letter of intent or Contract providing for a Veeco Acquisition Transaction and such Veeco Acquisition Transaction is consummated within 24 months following the termination of this Merger Agreement, Veeco shall pay to FEI within two business days after demand by Veeco a fee equal to the Termination Fee, by wire transfer of immediately available funds to an account designated in writing by FEI. For purposes of this Section 9.03(b)(vi), the term "Veeco Acquisition Transaction" shall have the meaning ascribed to such term in Article I, except that references to "15%" therein shall be deemed to read "40%."

(vii) Notwithstanding anything to the contrary in this Section 9.03, in no event shall any party hereto be entitled under this Section 9.03(b) to receive (i) the Termination Fee or the Transaction Expenses more than once or (ii) the Transaction Expenses if such party has received the Termination Fee. In addition, if a party has received the Transaction Expenses and subsequently becomes entitled to receive the Termination Fee, such party shall receive the Termination Fee less any Transaction Expenses previously received.

(viii) The Parties acknowledge that the agreements contained in this Section 9.03 are an integral part of the transaction contemplated by this Merger Agreement, and that, without these agreements, neither Party would have entered into this Merger Agreement. Accordingly, if either Party fails to pay in a timely manner the amounts due pursuant to this Section 9.03 and, in order to obtain such payment, either Party makes a claim that results in a judgment against either Party for the amounts set forth in this Section 9.03, such Party shall pay to the other its reasonable costs and expenses (including reasonable attorneys' fees and expenses) in connection with such suit, together with interest on the amounts set forth in this Section 9.03 at the prime rate of JP Morgan Chase in effect on the date such payment was required to be made. Payment of the fees described in this Section 9.03 shall not be in lieu of damages incurred in the event of breach of this Agreement.

X. MISCELLANEOUS.

10.01 Successors. This Merger Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

10.02 Amendment. This Merger Agreement may be amended with the approval of the respective Boards of Directors of FEI and Veeco at any time (whether before or after approval of the Merger by the stockholders of FEI and whether before or after approval of the issuance of Veeco Shares in the Merger by Veeco's stockholders); *provided, however*, that (i) after any such approval of the Merger by FEI's stockholders, no amendment shall be made which by Law requires further approval of the stockholders of FEI without the further approval of such stockholders, and (ii) after any such approval of the issuance of Veeco Shares in the Merger by Veeco's stockholders, no amendment shall be made which by Law or NASD regulation requires further approval of Veeco's stockholders without the further approval of such stockholders. This Merger Agreement may not be amended except by an instrument in writing signed on behalf of each of the parties hereto.

10.03 Waiver.

(a) No failure on the part of any party to exercise any power, right, privilege or remedy under this Merger Agreement, and no delay on the part of any party in exercising any power,

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right, privilege or remedy under this Merger Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

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(b) No party shall be deemed to have waived any claim arising out of this Merger Agreement, or any power, right, privilege or remedy under this Merger Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such party; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.04 No Survival of Representations and Warranties. None of the representations and warranties contained in this Merger Agreement or in any certificate delivered pursuant to this Merger Agreement shall survive the Merger.

10.05 Entire Agreement: Counterparts. This Merger Agreement (together with the agreements, certificates and other documents referred to herein, the Schedules and Exhibits hereto and the FEI Disclosure Schedule and the Veeco Disclosure Schedule) constitutes the entire agreement among the parties with respect to its subject matter and supersedes all other prior and contemporaneous agreements and understandings, both written and oral, among or between any of the parties with respect to the subject matter hereof; *provided, however*, that the certain Mutual Confidentiality Agreement dated February 28, 2002 between FEI and Veeco shall not be superseded and shall remain in full force and effect. This Merger Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument.

10.06 Governing Law. THIS MERGER AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE APPLICABLE TO AGREEMENTS MADE AND PERFORMED IN SUCH STATE AND WITHOUT REGARD TO CONFLICTS OF LAW DOCTRINES EXCEPT TO THE EXTENT THAT CERTAIN MATTERS ARE PREEMPTED BY FEDERAL LAW OR ARE GOVERNED BY THE LAW OF THE JURISDICTION OF ORGANIZATION OF THE RESPECTIVE PARTIES.

10.07 Disclosure Schedules. The FEI Disclosure Schedule shall be arranged in separate parts corresponding to the numbered and lettered Sections contained in Article III. Any matter or item disclosed pursuant to any Section of the FEI Disclosure Schedule shall be deemed to be disclosed only for purposes of disclosure under that Section; provided, that any matter or item disclosed in one Section of the FEI Disclosure Schedule will be deemed disclosed with respect to another Section of the FEI Disclosure Schedule if such disclosure is made in such a way as to make its relevance with respect to such other Section reasonably apparent. The Veeco Disclosure Schedule shall be arranged in separate parts corresponding to the numbered and lettered Sections contained in Article IV. Any matter or item disclosed pursuant to any Section of the Veeco Disclosure Schedule shall be deemed to be disclosed only for purposes of disclosure under that Section; provided, that any matter or item disclosed in one Section of the Veeco Disclosure Schedule will be deemed disclosed with respect to another Section of the Veeco Disclosure Schedule if such disclosure is made in such a way as to make its relevance with respect to such other Section reasonably apparent. The inclusion of any information in the FEI Disclosure Schedule or Veeco Disclosure Schedule shall not be deemed to be an admission or acknowledgment, in and of itself, that such information is required by the terms hereof to be disclosed, is material, has or would have a Material Adverse Effect, or is outside the ordinary course of business.

10.08 Attorneys' Fees. In any action at law or suit in equity to enforce this Merger Agreement or the rights of any of the parties hereunder, the prevailing party in such action or suit shall be entitled to receive a reasonable sum for its attorneys' fees and all other reasonable costs and expenses incurred in such action or suit.

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10.09 Assignment. Neither Veeco, Acquisition nor FEI may assign this Merger Agreement to any other Person without the prior written consent of the other parties hereto.

10.10 Notices. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given (a) when delivered personally, (b) when transmitted by telecopy (transmission confirmed), (c) on the fifth business day following mailing by registered or certified mail (return receipt requested), or (d) on the next business day following deposit with an overnight delivery service of national reputation, to the parties at the following addresses and telecopy numbers (or at such other address or telecopy number for a party as may be specified by like notice):

If to Veeco or Acquisition:
c/o Veeco Instruments Inc.
100 Sunnyside Boulevard
Woodbury, New York 11797
Attention: Gregory Robbins
Telephone: (516) 677-0200
Telecopy: (516) 677-0380

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With a copy to:
Kaye Scholer LLP
425 Park Avenue
New York, New York 10022
Attention: Rory A. Greiss, Esq.
Telephone: (212) 836-8261
Telecopy: (212) 836-7152

If to FEI:
FEI Company
7425 NW Evergreen Parkway
Hillsboro, Oregon 97124
Attention: Bradley J. Thies
Telephone: (503) 640-7500
Telecopy: (503) 640-7570

With a copy to:
Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, California 94304
Attention: Larry Sonsini, Esq.
Telephone: (650) 493-9300
Telecopy: (650) 493-6811

10.11 Headings. The headings contained in this Merger Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Merger Agreement.

10.12 Exhibits and Schedules. The Exhibits and Schedules to this Merger Agreement are incorporated by reference herein and are made a part hereof as if they were fully set forth herein. References herein to "this Merger Agreement," "herein," "hereof" and phrases of like import are references to this Merger Agreement, together with the Exhibits and Schedules hereto, including the FEI Disclosure Schedule and the Veeco Disclosure Schedule.

10.13 Severability. The invalidity of any term or terms of this Merger Agreement shall not affect any other term of this Merger Agreement, which shall remain in full force and effect.

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10.14 No Third-Party Beneficiaries. Other than the Indemnified Persons, there are no third party beneficiaries of this Merger Agreement or of the transactions contemplated hereby and nothing contained herein shall be deemed to confer upon anyone other than the parties hereto (and their permitted successors and assigns) and, with respect to the obligations of Veeco pursuant to Section 5.08 the Indemnified Persons, any right to insist upon or to enforce the performance of any of the obligations contained herein. Without limiting the foregoing, it is expressly understood and agreed that the provisions of Sections 5.05, 5.06, 5.07, 5.09 and 5.13 are statements of intent and no U.S. Continuing Employee, Foreign Continuing Employee or other Person (other than the parties hereto) shall have any rights or remedies, including rights of enforcement, with respect thereto and no U.S. Continuing Employee, Foreign Continuing Employee or other Person is or is intended to be a third-party beneficiary thereof.

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IN WITNESS WHEREOF, the parties have executed this Merger Agreement as of the date first above written.

VEECO INSTRUMENTS INC.

By: */s/* EDWARD H. BRAUN

Name: Edward H. Braun
Title: Chairman, Chief Executive Officer and President

FEI COMPANY

By: /s/ VAHE A. SARKISSIAN

Name: Vahe A. Sarkissian
Title: President and Chief Executive Officer

VENICE ACQUISITION CORP.

By: /s/ EDWARD H. BRAUN

Name: Edward H. Braun
Title: President

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Schedule A

**FEI Stockholders Party to
FEI Stockholder Voting Agreements**

Schedule B

**Veeco Stockholders Party to
Veeco Stockholder Voting Agreements**

Exhibit A

FEI Stockholder Voting Agreements

(Attached hereto)

VOTING AGREEMENT

VOTING AGREEMENT, dated as of July 11, 2002 (this "Agreement"), between Philips Business Electronics International B.V., a company incorporated under the laws of the Netherlands (the "Stockholder"), and Veeco Instruments Inc., a Delaware corporation (the "Company" and, collectively with the Stockholder, the "Parties").

WHEREAS, as of the date of this Agreement, the Stockholder is the Beneficial Owner (as herein defined) of 8,264,821 shares of Common Stock, no par value (the "Florence Stock"), of FEI Company, an Oregon corporation ("Florence"); and

WHEREAS, the Company, Venice Acquisition Corp., an Oregon corporation ("Acquisition"), and Florence have entered into an Agreement and Plan of Merger, dated as of July 11, 2002 (the "Merger Agreement"), which provides that, among other things, on the terms and subject to the conditions set forth therein, Acquisition shall be merged with and into Florence (the "Merger"), and each share of Florence Stock will be converted into the right to receive 1.355 shares of common stock, \$0.01 par value per share (the "Company Stock"), of the Company; and

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WHEREAS, the Stockholder and the Company have entered into an Investor Agreement, dated as of July 11, 2002 (the "*Investor Agreement*") and the Amendment Agreement, dated as of July 11, 2002 (the "*Amendment Agreement*"); and

WHEREAS, the Stockholder and the Company each desire to make certain covenants and agreements concerning the manner in which the Stockholder Florence Shares (as herein defined) will be voted in connection with the Merger and the Merger Agreement.

NOW, THEREFORE, in consideration of the Company's execution and delivery to the Stockholder of the Investor Agreement and the Amendment Agreement and in consideration of the mutual covenants and agreements contained herein, the Stockholder and the Company agree as follows:

ARTICLE I

Definitions and Construction

1.01 *As used in this Agreement, the following terms have the respective meanings ascribed to them in this Section.*

(a) "*Beneficially Own*" or "*Beneficial Ownership*" with respect to any securities means having "beneficial ownership" of such securities (as determined pursuant to Rule 13d-3 under the Exchange Act), including pursuant to any agreement, arrangement or understanding, whether or not in writing. Without duplicative counting of the same securities by the same holder, securities Beneficially Owned by a person or entity shall include securities Beneficially Owned by all other persons or entities with whom such person or entity would constitute a "group" within the meaning of Section 13(d) of the Exchange Act with respect to securities of the same issuer.

(b) "*Effective Time*" has the meaning set forth in the Merger Agreement.

(c) "*Exchange Act*" means the United States Securities Exchange Act of 1934, as amended.

(d) "*Existing Florence Shares*" means all shares of Florence Common Stock Beneficially Owned by the Stockholder on the date of this Agreement, in each case, if and to the extent entitled to be voted.

(e) "*FEI Acquisition Proposal*" has the meaning set forth in the Merger Agreement.

(f) "*FEI Acquisition Transaction*" has the meaning set forth in the Merger Agreement.

(g) "*NASDAQ*" has the meaning set forth in the Merger Agreement.

(h) "*Proxy*" means a proxy in the form of Exhibit A attached to this Agreement.

(i) "*Stockholder Florence Shares*" means the Existing Florence Shares and any shares of Florence Stock and/or other equity securities of, or equity interests in, Florence acquired by the Stockholder in any capacity after the date of this Agreement and prior to the termination of this Agreement, whether upon the exercise of options, warrants or rights, the conversion or exchange of convertible or exchangeable securities, or by means of purchase, dividend, distribution, split-up, recapitalization, combination, exchange of shares or the like, gift, bequest, inheritance or as a successor in interest in any capacity or otherwise Beneficially Owned by the Stockholder, in each case, if and to the extent entitled to be voted.

(j) "*Superior FEI Proposal*" has the meaning set forth in the Merger Agreement.

(k) "*Transfer*" means any direct or indirect sale, transfer, pledge, assignment or other disposition of, or entry into any contract, option or other arrangement with respect to the sale, transfer, pledge, assignment or other disposition of, any Stockholder Florence Shares by the Stockholder (in each of the foregoing, whether voluntary or involuntary, by operation of law or otherwise).

(l) "*Transferee*" any person or entity to whom a Transfer is made.

ARTICLE II

Representations and Warranties

2.01 *Reciprocal Representations and Warranties.* Each Party hereby represents and warrants to the other as follows:

(a) Such Party is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization. Such Party has all power and authority necessary to enable it to enter into this Agreement and to carry out the transactions contemplated by this Agreement and (in the case of the Stockholder) the Proxy. This Agreement and (in the case of the Stockholder) the Proxy have been duly and validly authorized, executed and delivered by such Party and constitutes such Party's legal, valid and binding obligation, enforceable against it in accordance with its terms.

(b) Neither the execution and delivery of this Agreement or, in the case of the Stockholder, the Proxy, nor the consummation of the transactions contemplated by this Agreement or the Proxy will violate, result in a breach of, or constitute a default (or an event which, with notice or lapse of time or both would constitute a default) under (i) such Party's certificate of incorporation or similar organizational, governing or constating documents, (ii) any agreement or instrument to which such Party is a party or by which it is bound, or (iii) any law, or any order, rule or regulation of any court or governmental authority or other regulatory organization having jurisdiction over it.

(c) Except as set forth in the Merger Agreement and the schedules thereto, no governmental filings, authorizations, approvals or consents, or other governmental action, is required for (i) the execution and delivery of this Agreement or, in the case of the Stockholder, the Proxy, (ii) the performance by such Party of its obligations under this Agreement and the Proxy, or (iii) the consummation by such Party of the transactions contemplated by this Agreement and the Proxy.

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2.02 *Stockholder Representations and Warranties.* The Stockholder hereby represents and warrants to the Company as follows:

(a) The Stockholder is the record and Beneficial Owner of 8,264,821 Existing Florence Shares. On the date of this Agreement, such Existing Shares constitute all of the shares of Florence Stock owned of record or Beneficially Owned by the Stockholder.

(b) The Stockholder owns the Existing Florence Shares free and clear of any liens, claims, security interests, proxies, voting trusts or agreements, restrictions, qualifications, limitations, understandings or arrangements which would in any way restrict or impair the Stockholder's right to vote Stockholder Florence Shares in its sole discretion, or could require the Stockholder to sell or transfer any Stockholder Florence Shares (whether upon default on a loan or otherwise) before the Effective Time.

(c) The Stockholder has sufficient voting power and sufficient power to issue instructions and sufficient power to agree to the matters set forth in this Agreement with respect to the Stockholder Florence Shares.

ARTICLE III

Agreements in Respect of the Stockholder Florence Shares

3.01 *Vote for Merger.*

(a) The Stockholder shall cause the Stockholder Florence Shares to be counted as present for purposes of establishing a quorum at any meeting of stockholders of Florence called to vote upon the Merger and the Merger Agreement, or at any adjournment or postponement thereof, or in any other circumstances upon which a vote, consent or other approval with respect to the Merger and the Merger Agreement is sought, and shall cause the Stockholder Florence Shares to be voted or consented in favor of the Merger; *provided* that nothing set forth in this Section 3.01(a) or in the Proxy is intended or shall be construed to restrict or impair the right of the Stockholder to vote or consent (or cause to be voted or consented) any Stockholder Florence Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

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(b) In order to effectuate the voting arrangements contemplated by Sections 3.01(a) and 3.02, contemporaneously with the execution and delivery by the Parties of this Agreement, and as a condition to such execution and delivery by the Company, the Stockholder is delivering to the Company the Proxy, duly executed by or on behalf of the Stockholder; *provided* that nothing set forth in this Section 3.01(b) or in the Proxy is intended or shall be construed to restrict or impair the right of the Stockholder to vote or consent (or cause to be voted or consented) any Stockholder Florence Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

3.02 *Vote Against Certain Matters.* Prior to the Effective Time, the Stockholder shall cause the Stockholder Florence Shares to be counted as present for purposes of establishing a quorum at any meeting of stockholders of Florence called, or at any adjournment or postponement thereof, or in any other circumstances upon which a vote, consent or other approval is sought, and shall cause the Stockholder Florence Shares to be voted or consented against any proposal or transaction involving Florence or any of its subsidiaries that would prevent or nullify the Merger or the Merger Agreement (any such proposal or transaction, a "*Particular Matter*"); *provided* that nothing set forth in this Section 3.02 or such Proxy is intended or shall be construed to restrict or impair the right of the Stockholder to vote or consent (or cause to be voted or consented) any Stockholder Florence Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

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3.03 *Transfers; Other Voting Arrangements.*

(a) The Stockholder may not Transfer any Stockholder Florence Shares except (i) to a Transferee that both (A) agrees, prior to the consummation of such Transfer, to become bound by this Agreement and the Proxy and subject to the terms, conditions and restrictions hereof and thereof in the same manner as the Stockholder, by executing and delivering to the Company a writing to such effect in form and substance satisfactory to the Company, and (B) enters into, prior to the consummation of such Transfer, a "standstill" agreement with respect to each of Florence and the Company, each of which "standstill" agreements (I) shall be identical in substance to Section 4.01(a) of the Investor Agreement and otherwise in form and substance satisfactory to Florence or the Company, as the case may be, and (II) shall be effective only for the period between the consummation of such Transfer and the Effective Time, or (ii) to a Transferee that has made a Superior FEI Proposal in the FEI Acquisition Transaction contemplated by such Superior FEI Proposal.

(b) The Stockholder shall not, directly or indirectly, enter into any voting arrangement, whether by proxy, voting arrangement, voting agreement, voting trust or otherwise with respect to any Stockholder Florence Shares, other than this Agreement and the Proxy; *provided* that nothing set forth in this Section 3.03 or in the Proxy is intended or shall be construed to restrict or impair the right of the Stockholder to vote or consent (or grant a proxy causing to be voted or consented) any Stockholder Florence Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

(c) The Stockholder shall not, directly or indirectly, take any action that would or could reasonably be expected to invalidate or in any way limit the enforceability by the Proxyholders (as defined in the Proxy) of the Proxy.

(d) Notwithstanding any provision of this Agreement to the contrary, nothing in this Agreement shall limit or restrict any employee of the Stockholder from acting in his or her capacity as a director or officer of Florence (it being understood that this Agreement shall apply to the Stockholder solely in the Stockholder's capacity as a stockholder of Florence). No conduct or action taken by any employee of the Stockholder who is also a director or officer of Florence, in his capacity as such, shall be deemed to constitute a breach of any provision of this Agreement.

3.04 *Confidentiality.* Prior to the first public announcement by the Company and Florence of the Merger Agreement, the Merger and the other transactions contemplated thereby, the Stockholder shall not, and shall cause its Affiliates (as defined in the Merger Agreement) and its and their respective employees, counsel, advisors and representatives ("*Representatives*") not to, disclose to any person or entity any information concerning the Merger Agreement, the Merger or the other transactions contemplated thereby, or the discussions concerning the same, *provided*, that such information may be disclosed to employees, counsel, advisors and representatives of the Stockholder and its Affiliates who have been advised of the foregoing obligations, and *provided, further*, that nothing set forth in this Section 3.04 is intended or shall be construed to restrict or impair the ability of the Stockholder or its Affiliates to comply with their respective reporting obligations under applicable laws and stock exchange regulations, in which event the Stockholder shall give prior notice of such disclosure to the Company as promptly as practicable so as to enable the Company to seek a protective order from a court of competent jurisdiction with respect thereto or similar relief in connection therewith.

3.05 *Disclosure.* Each Party acknowledges that the other Party is or may be obligated to disclose in governmental and stock exchange (including NASDAQ) filings the Stockholder's identity, facts concerning the Stockholder's ownership of Florence Stock and the nature of the commitments, arrangements and understandings set forth in this Agreement, the Proxy, the Investor Agreement, the Amendment Agreement and

any other agreements executed and delivered in connection with the Merger, together with such other information as may be required by applicable laws and stock

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exchange regulations. No Party shall issue any press release naming the other Party or any of the other Party's Affiliates unless such press release has been approved by such other Party, which approval shall not be unreasonably withheld, delayed or conditioned.

3.06 *No Solicitation.* Subject to Section 3.03(d), the Stockholder shall not, and shall cause Koninklijke Philips Electronics N.V. ("*Philips*") and each other direct and indirect subsidiary of Philips not to, take any action to solicit, initiate, encourage, induce or facilitate the making, submission or announcement of any FEI Acquisition Proposal, or engage in discussions or negotiations with any person or entity (other than with Florence and the Company or any of their Affiliates or Representatives) with respect to any FEI Acquisition Proposal, (other than any Superior FEI Proposal or related FEI Acquisition Transaction) or disclose any nonpublic information relating to Florence or any subsidiary of Florence. The Stockholder shall advise Florence and the Company of any FEI Acquisition Proposal (including the identity of the person or entity making or submitting such FEI Acquisition Proposal and the terms thereof) that is made or submitted by any person or entity after the date of this Agreement, reasonably promptly following its receipt thereof. The Stockholder shall keep Florence and the Company reasonably informed with respect to the status of any such FEI Acquisition Proposal. The Stockholder shall, and shall cause Philips and each other direct and indirect subsidiary of Philips to, immediately cease and cause to be terminated any discussions now pending with any person or entity that relate to any FEI Acquisition Proposal or FEI Acquisition Transaction, other than discussions or negotiations with Florence and the Company or their Affiliates or Representatives.

ARTICLE IV

Miscellaneous

4.01 *Termination of Agreement.* The provisions of this Agreement and the Proxy shall automatically terminate upon, and be of no further force or effect after, the earliest to occur of (i) the termination of the Merger Agreement in accordance with its terms, (ii) the Effective Time, and (iii) the execution and delivery by any party to the Merger Agreement of any amendment thereto which would cause each share of Florence Stock to be converted into the right to receive fewer than 1.355 shares of Company Stock (as adjusted for any stock splits, reverse stock splits, stock dividends or similar events).

4.02 *Entire Agreement.* This Agreement and the Proxy contain the entire agreement among the parties relating to the transactions which are the subject of this Agreement, and all prior and contemporaneous negotiations, understandings and agreements among the parties (whether written or oral) with regard to the subject matter of this Agreement are superseded by this Agreement, and there are no representations, warranties, understandings or agreements concerning the transactions which are the subject of this Agreement or those other documents other than those expressly set forth in this Agreement.

4.03 *Captions.* The captions of the articles and paragraphs of this Agreement are for reference only, and do not affect the meaning or interpretation of this Agreement.

4.04 *Binding Agreement; Assignment.*

(a) The Stockholder agrees that this Agreement and the obligations hereunder shall attach to the Stockholder Florence Shares and shall be binding upon any person to which record or Beneficial Ownership of such Stockholder Florence Shares shall pass, whether by operation of law or otherwise, including, without limitation, the Stockholder's successors, partners or Transferees (for value or otherwise) and any other successors in interest. Notwithstanding any transfer of Florence Stock, the transferor shall remain liable for the performance of all obligations under this Agreement of the transferor.

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(b) Notwithstanding anything to the contrary set forth herein, except in accordance with Section 3.03(a), no Party may assign any of its rights or obligations hereunder, by operation of law or otherwise, without the prior written consent of the other Party; provided that the Company may assign, in its sole discretion, its rights and obligations hereunder to any direct or indirect wholly-owned subsidiary of the Company, but no such assignment shall relieve the Company of its obligations hereunder if such assignee does not

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perform such obligations.

4.05 *Notices and Other Communications.* Any notice or other communication under this Agreement must be in writing and will be deemed given when delivered in person or sent by facsimile (with proof of receipt at the number to which it is required to be sent), or on the third business day after the day on which mailed by first class mail from within the United States of America, to the following addresses (or such other address as may be specified after the date of this Agreement by the party to which the notice or communication is sent):

If to the Company:

Veeco Instruments Inc.
100 Sunnyside Boulevard
Woodbury, New York 11797
Attention: Gregory A. Robbins
Telephone: (516) 677-0200
Telecopier: (516) 677-9125

with a copy to:

Kaye Scholer LLP
425 Park Avenue
New York, New York 10022
Attention: Rory A. Greiss
Telephone: (212) 836-8261
Telecopier: (212) 836-7152

and a copy to:

FEI Company
7425 N.W. Evergreen Parkway
Hillsboro, Oregon 97124-5830
Attention: Bradley J. Thies
Telephone: (503) 640-7500
Telecopier: (503) 640-7509

and a copy to:

Wilson Sonsini Goodrich & Rosati, Professional Corporation
650 Page Mill Road
Palo Alto, California 94304
Attention: Larry W. Sonsini
Telephone: (650) 493-9300
Telecopier: (650) 493-6811

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If to the Stockholder:

c/o Philips Semiconductors
Legal Department
Building B460-1
Prof. Holstlaan 4
5656AA Eindhoven
The Netherlands
Attention: Guido Dierick
Telephone: +31 (40) 272-2041
Telecopier: +31 (40) 272-4005

with a copy to:

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Sullivan & Cromwell
1870 Embarcadero Road
Palo Alto, California 94303
Attention: Matthew G. Hurd
Telephone: (650) 461-5600
Telecopier: (650) 461-5700

4.06 *Governing Law.* THIS AGREEMENT AND THE PROXY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF OREGON APPLICABLE TO AGREEMENTS MADE AND PERFORMED IN SUCH STATE AND WITHOUT REGARD TO CONFLICTS OF LAWS DOCTRINES.

4.07 *Amendments.* Prior to the Effective Time, this Agreement may be amended only by a document in writing signed by each of the Parties.

4.08 *Counterparts.* This Agreement may be executed in two or more counterparts, some of which may contain the signatures of some, but not all, the parties hereto. Each of those counterparts will be deemed an original, but all of them together will constitute one and the same Agreement.

4.09 *Severability.* If any provision of this Agreement is held to be illegal, invalid or unenforceable, and if the rights or obligations of any party hereto under this Agreement will not be materially and adversely affected thereby, (i) such provision will be fully severable, (ii) this Agreement will be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part hereof, (iii) the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid or unenforceable provision or by its severance herefrom and (iv) in lieu of such illegal, invalid or unenforceable provision, there will be added automatically as a part of this Agreement a legal, valid and enforceable provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible.

4.10 *Enforcement.* The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement and the Proxy were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties hereto shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and the Proxy and to enforce specifically the terms and provisions of this Agreement and the Proxy in any Federal court located in the State of Delaware or in a Delaware state court, this being in addition to any other remedy to which they are entitled at law or in equity. In addition, each of the Parties hereto (i) consents to the personal jurisdiction of any Federal court located in the State of Delaware or any Delaware state court in any action or proceeding relating to or arising out of this Agreement (including, with respect to the Stockholder, the Proxy) or any of the transactions contemplated hereby, (ii) agrees that such Party will not attempt to deny or defeat such personal jurisdiction by motion or other request for leave from any such court, (iii) agrees that such Party will not seek to change the

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venue of any such action or proceeding or otherwise to move any such action or proceeding to another court, whether because of inconvenience of the forum or otherwise (*provided* that nothing in this Section will prevent a party from removing an action or proceeding from a Delaware state court to a Federal court located in the State of Delaware), (iv) agrees that such Party will not bring any action relating to this Agreement or the Proxy or any of the transactions contemplated hereby or thereby in any court other than a Federal court sitting in the State of Delaware or a Delaware state court and (v) waives any right to trial by jury with respect to any claim or proceeding related to or arising out of this Agreement or the Proxy or any of the transactions contemplated hereby or thereby.

4.11 *Further Assurances.* From time to time, at the Company's request and without further consideration, the Stockholder shall execute and deliver such additional documents and take all such further lawful action as may be necessary or appropriate to effect the full and prompt performance of the Stockholder's obligations pursuant to this Agreement and the validity and enforceability of the Proxy.

(Signature page follows)

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IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

**PHILIPS BUSINESS ELECTRONICS
INTERNATIONAL B.V.**

By: _____

Name:
Title:

By: _____

Name:
Title:

VEECO INSTRUMENTS INC.

By: _____

Name:
Title:

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EXHIBIT A

PROXY

Reference is hereby made to that certain Voting Agreement, dated as of July 11, 2002 (the "*Voting Agreement*"), of which this Proxy (this "*Proxy*") forms a part. Capitalized terms used but not defined in this Proxy have the respective meanings ascribed to such terms in the Voting Agreement. This Proxy is being delivered by the undersigned Stockholder (the "*Granting Stockholder*") pursuant to Section 3.01(b) of the Voting Agreement.

The undersigned Granting Stockholder hereby appoints Veeco Instruments Inc., a Delaware corporation ("*Veeco*"), and each of Veeco's officers and other designees (each such person or entity, a "*Proxyholder*") as the Granting Stockholder's attorney-in-fact and proxy pursuant to the provisions of ORS § 60.231 (2001), with full power of substitution, in the Granting Stockholder's name, place and stead, to vote and otherwise act (by written consent or otherwise) with respect to all of the Stockholder Florence Shares which the Granting Stockholder is entitled to vote at any meeting of the stockholders of Florence (whether annual or special and whether or not an adjourned or postponed meeting) or consent in lieu of any such meeting or otherwise **FOR AND IN FAVOR OF** the Merger; *provided, however*, that nothing set forth in this Proxy is intended or shall be construed to grant to any Proxyholder the right to vote or otherwise act (by written consent or otherwise) with respect to any Stockholder Florence Shares with respect to any Superior FEI Proposal or related FEI Acquisition Transaction.

The Granting Stockholder hereby revokes all other proxies and powers of attorney with respect to any Stockholder Florence Shares that the Granting Stockholder may have heretofore granted, and no subsequent proxy or power of attorney shall be given or written consent executed (and if given or executed, shall not be effective) by the Granting Stockholder purporting to grant the specific voting powers specified herein. Any obligation of the Granting Stockholder under this Proxy shall be binding upon the successors and assigns of the Granting Stockholder.

THIS PROXY IS COUPLED WITH AN INTEREST AND IS IRREVOCABLE UNTIL THE EARLIEST TO OCCUR OF (I) THE TERMINATION OF THE MERGER AGREEMENT IN ACCORDANCE WITH ITS TERMS, (II) THE EFFECTIVE TIME OF THE MERGER, AND (III) THE EXECUTION AND DELIVERY BY ANY PARTY TO THE MERGER AGREEMENT OF ANY AMENDMENT THERETO WHICH WOULD CAUSE EACH SHARE OF FLORENCE STOCK TO BE CONVERTED INTO THE RIGHT TO RECEIVE FEWER THAN 1.355 SHARES OF COMPANY STOCK (AS ADJUSTED FOR ANY STOCK SPLITS, REVERSE STOCK SPLITS, STOCK DIVIDENDS OR SIMILAR EVENTS).

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THIS PROXY WILL AUTOMATICALLY TERMINATE AND WILL BE AUTOMATICALLY REVOKED, AND THE INTEREST WITH WHICH THIS PROXY IS COUPLED WILL BE AUTOMATICALLY EXTINGUISHED, UPON THE EARLIEST TO OCCUR OF THE EVENTS SPECIFIED IN THE PREVIOUS SENTENCE.

Philips Business Electronics International B.V.

By: _____

Name:

Title:

By: _____

Name:

Title:

Dated: July , 2002

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VOTING AGREEMENT

VOTING AGREEMENT, dated as of July 11, 2002 (this "Agreement"), among each of the individuals listed on Schedule A to this Agreement (each, an "FEI Stockholder" and collectively, the "FEI Stockholders"), and Veeco Instruments Inc., a Delaware corporation (the "Company" and, collectively with the FEI Stockholders, the "Parties"). Capitalized terms used in this Agreement but not otherwise defined herein shall have the respective meanings ascribed to such terms in the Merger Agreement.

WHEREAS, FEI Company, an Oregon corporation ("FEI"), Venice Acquisition Corp., an Oregon corporation and a wholly owned subsidiary of the Company ("Acquisition"), and the Company have entered into an Agreement and Plan of Merger, dated as of July 11, 2002 (the "Merger Agreement"), which provides that, among other things, on the terms and subject to the conditions set forth therein, Acquisition shall be merged with and into FEI (the "Merger"), and each share of FEI Common Stock will be converted into the right to receive 1.355 shares of common stock, \$0.01 par value per share (the "Company Stock"), of the Company;

WHEREAS, each FEI Stockholder owns the number of Existing FEI Shares (as defined herein) set forth opposite such FEI Stockholder's name on Schedule A hereto and the FEI Stockholders collectively own in the aggregate 648,198 Existing FEI Shares;

WHEREAS, this Agreement is the FEI Stockholders Voting Agreement contemplated by and referred to in the third "WHEREAS" clause to the Merger Agreement; and

WHEREAS, as a condition to the willingness of the Company to enter into the Merger Agreement, the Company has requested that the FEI Stockholders enter into this Agreement.

NOW, THEREFORE, to induce the Company to enter into, and in consideration of its entering into, the Merger Agreement, and in consideration of the mutual covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties to this Agreement, intending to be legally bound, hereby agree as follows:

ARTICLE I

Definitions and Construction

1.01 As used in this Agreement, the following terms have the respective meanings ascribed to them in this Section.

(a) "Beneficially Own" or "Beneficial Ownership" with respect to any securities means having "beneficial ownership" of such securities (as determined pursuant to Rule 13d-3 under the Exchange Act), including pursuant to any agreement, arrangement or understanding, whether or not in writing. Without duplicative counting of the same securities by the same holder, securities Beneficially Owned by a person or entity shall include securities Beneficially Owned by all other persons or entities with whom such person or entity would constitute a "group" within the meaning of Section 13(d) of the Exchange Act with respect to securities of the same issuer.

(b) "Effective Time" has the meaning set forth in the Merger Agreement.

(c) "Exchange Act" means the United States Securities Exchange Act of 1934, as amended.

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(d) "*Existing FEI Shares*" means all shares of FEI Common Stock Beneficially Owned by such FEI Stockholder on the date of this Agreement, in each case, if and to the extent entitled to be voted.

(e) "*FEI Acquisition Proposal*" has the meaning set forth in the Merger Agreement.

(f) "*FEI Acquisition Transaction*" has the meaning set forth in the Merger Agreement.

(g) "*NASDAQ*" has the meaning set forth in the Merger Agreement.

(h) "*Proxy*" means a proxy in the form of Exhibit A attached to this Agreement.

(i) "*Stockholder FEI Shares*" means the Existing FEI Shares and any shares of FEI Common Stock and/or other equity securities of, or equity interests in, FEI acquired by such FEI Stockholder in any capacity after the date of this Agreement and prior to the termination of this Agreement, whether upon the exercise of options, warrants or rights, the conversion or exchange of convertible or exchangeable securities, or by means of purchase, dividend, distribution, split-up, recapitalization, combination, exchange of shares or the like, gift, bequest, inheritance or as a successor in interest in any capacity or otherwise Beneficially Owned by such FEI Stockholder, in each case, if and to the extent entitled to be voted.

(j) "*Transfer*" means any direct or indirect sale, transfer, pledge, assignment or other disposition of, or entry into any contract, option or other arrangement with respect to the sale, transfer, pledge, assignment or other disposition of, any Stockholder FEI Shares by such FEI Stockholder (in each of the foregoing, whether voluntary or involuntary, by operation of law or otherwise).

(k) "*Transferee*" any person or entity to whom a Transfer is made.

(l) "*Superior FEI Proposal*" has the meaning set forth in the Merger Agreement.

ARTICLE II

Representations and Warranties

2.01 *FEI Stockholder Representations and Warranties.* Each FEI Stockholder represents and warrants to the Company as follows:

(a) Such FEI Stockholder has all power and authority necessary to enable it to enter into this Agreement and the Proxy and to carry out the transactions contemplated hereby and thereby. This Agreement and the Proxy have been duly executed and delivered by such FEI Stockholder and each constitutes a legal, valid and binding obligation, enforceable against such FEI Stockholder in accordance with its terms.

(b) Neither the execution and delivery of this Agreement or the Proxy, nor the consummation of the transactions contemplated by this Agreement, the Proxy or by any document to be delivered in accordance herewith or therewith will violate, result in a breach of, or constitute a default (or an event which, with notice or lapse of time or both would constitute a default) under (i) any agreement or instrument to which such FEI Stockholder is a party or by which it is bound, or (ii) any law, or any order, rule or regulation of any court or governmental authority or other regulatory organization having jurisdiction over it.

(c) Except as set forth in the Merger Agreement and the schedules thereto, no governmental filings, authorizations, approvals or consents, or other governmental action, is required for (i) the execution and delivery of this Agreement or the Proxy, (ii) the performance by such FEI Stockholder of its obligations under this Agreement and the Proxy, or (iii) the consummation by such FEI Stockholder of the transactions contemplated by this Agreement and the Proxy.

(d) Such FEI Stockholder is the record and Beneficial Owner of the number of Existing FEI Shares set forth opposite such FEI Stockholder's name on Schedule A hereto. On the date of this

Agreement, such Existing FEI Shares constitute all of the shares of FEI Common Stock owned of record or Beneficially Owned by such FEI Stockholder.

(e) Such FEI Stockholder owns the number of Existing FEI Shares set forth opposite such FEI Stockholder's name on Schedule A hereto, free and clear of any liens, claims, security interests, proxies, voting trusts or agreements, restrictions, qualifications, limitations, understandings or arrangements which would in any way restrict or impair such FEI Stockholder's right to vote such Existing FEI Shares in its sole discretion, or could require such FEI Stockholder to sell or transfer any of such Existing FEI Shares (whether upon default on a loan or otherwise) before the Effective Time.

(f) Such FEI Stockholder has sufficient voting power and sufficient power to issue instructions and sufficient power to agree to the matters set forth in this Agreement with respect to all of such FEI Stockholder's Existing FEI Shares.

(g) The obligations of such FEI Stockholder under this Agreement shall survive the death, disability or incapacity of such FEI Stockholder.

2.02 *Company Representations and Warranties.* The Company hereby represents and warrants to the FEI Stockholders as follows:

(a) The Company is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization. The Company has all power and authority necessary to enable it to enter into this Agreement and to carry out the transactions contemplated hereby. This Agreement has been duly and validly authorized, executed and delivered by the Company and constitutes a legal, valid and binding obligation, enforceable against it in accordance with its terms.

(b) Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated by this Agreement will violate, result in a breach of, or constitute a default (or an event which, with notice or lapse of time or both would constitute a default) under (i) the Company's certificate of incorporation or similar organizational or governing documents, (ii) any agreement or instrument to which the Company is a party or by which it is bound, or (iii) any law, or any order, rule or regulation of any court or governmental authority or other regulatory organization having jurisdiction over it.

(c) Except as set forth in the Merger Agreement and the schedules thereto, no governmental filings, authorizations, approvals or consents, or other governmental action, is required for (i) the execution and delivery of this Agreement, (ii) the performance by the Company of its obligations under this Agreement, or (iii) the consummation by the Company of the transactions contemplated by this Agreement.

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ARTICLE III

Agreements in Respect of the Stockholder FEI Shares

3.01 *Vote for Merger.*

(a) Such FEI Stockholder shall cause its Stockholder FEI Shares to be counted as present for purposes of establishing a quorum at any meeting of stockholders of FEI called to vote upon the Merger, or at any adjournment or postponement thereof, or in any other circumstances upon which a vote, consent or other approval with respect to the Merger is sought, and shall cause such Stockholder FEI Shares to be voted or consented in favor of approving the Merger; *provided* that nothing set forth in this Section 3.01(a) or in the Proxy is intended or shall be construed to restrict or impair the right of such FEI Stockholder to vote or consent (or cause to be voted or consented) any of its Stockholder FEI Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

(b) In order to effectuate the voting arrangements contemplated by Sections 3.01(a) and 3.02, contemporaneously with the execution and delivery by the FEI Stockholders and the Company of this Agreement, and as a condition to such execution and delivery by the Company, such FEI Stockholder is delivering to the Company the Proxy, duly executed by or on behalf of such FEI Stockholder; *provided* that nothing set forth in this Section 3.01(b) or in the Proxy is intended or shall be construed to restrict or impair the right of such FEI Stockholder to vote or consent (or cause to be voted or consented) any of its Stockholder FEI Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

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3.02 *Vote Against Certain Matters.* Prior to the Effective Time, such FEI Stockholder shall cause its Stockholder FEI Shares to be counted as present for purposes of establishing a quorum at any meeting of stockholders of FEI called, or at any adjournment or postponement thereof, or in any other circumstances upon which a vote, consent or other approval is sought, and shall cause its Stockholder FEI Shares to be voted or consented against any proposal or transaction involving FEI or any of its subsidiaries that would prevent or nullify the Merger or the Merger Agreement (any such proposal or transaction, a "*Particular Matter*"); *provided* that nothing set forth in this Section 3.02 or such Proxy is intended or shall be construed to restrict or impair the right of such FEI Stockholder to vote or consent (or cause to be voted or consented) any of its Stockholder FEI Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

3.03 *Transfers; Other Voting Arrangements.*

(a) Such FEI Stockholder may not Transfer any Stockholder FEI Shares except to a Transferee that has made a Superior FEI Proposal in the FEI Acquisition Transaction contemplated by such Superior FEI Proposal.

(b) Such FEI Stockholder shall not, directly or indirectly, enter into any voting arrangement, whether by proxy, voting arrangement, voting agreement, voting trust or otherwise with respect to any of its Stockholder FEI Shares, other than this Agreement and the Proxy; *provided* that nothing set forth in this Section 3.03 or in the Proxy is intended or shall be construed to restrict or impair the right of such FEI Stockholder to vote or consent (or grant a proxy causing to be voted or consented) any of its Stockholder FEI Shares in favor of any Superior FEI Proposal or related FEI Acquisition Transaction.

(c) Such FEI Stockholder shall not, directly or indirectly, take any action that would or could reasonably be expected to invalidate or in any way limit the enforceability by the Proxyholders (as defined in the Proxy) of the Proxy.

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(d) Notwithstanding any provision of this Agreement to the contrary, nothing in this Agreement shall limit or restrict such FEI Stockholder from acting in his or her capacity as a director or officer of FEI (it being understood that this Agreement shall apply to such FEI Stockholder solely in such FEI Stockholder's capacity as a stockholder of FEI). No conduct or action taken by such FEI Stockholder, if such FEI Stockholder is also a director or officer of FEI (in his or her capacity as such), shall be deemed to constitute a breach of any provision of this Agreement.

3.04 *Confidentiality.* Prior to the first public announcement by the Company and FEI of the Merger Agreement, the Merger and the other transactions contemplated thereby, such FEI Stockholder shall not disclose to any person or entity any information concerning the Merger Agreement, the Merger or the other transactions contemplated thereby, or the discussions concerning the same, *provided*, that nothing set forth in this Section 3.04 is intended or shall be construed to restrict or impair the ability of such FEI Stockholder to comply with its reporting obligations under applicable laws and stock exchange (including NASDAQ) regulations, in which event such FEI Stockholder shall give prior notice of such disclosure to the Company as promptly as practicable so as to enable the Company to seek a protective order from a court of competent jurisdiction with respect thereto or similar relief in connection therewith.

3.05 *Disclosure.* Such FEI Stockholder acknowledges that the Company and/or FEI may be obligated to disclose in governmental and stock exchange (including NASDAQ) filings such FEI Stockholder's identity, facts concerning such FEI Stockholder's ownership of Stockholder FEI Shares and the nature of the commitments, arrangements and understandings set forth in this Agreement, the Proxy, and any other agreements executed and delivered in connection with the Merger, together with such other information as may be required by applicable laws and stock exchange (including NASDAQ) regulations.

3.06 *No Solicitation.* Subject to Section 3.03(d), such FEI Stockholder shall not solicit, initiate, encourage, induce or facilitate the making, submission or announcement of any FEI Acquisition Proposal, or engage in discussions or negotiations with any person or entity (other than with FEI and the Company or any of their Affiliates or Representatives) with respect to any FEI Acquisition Proposal, other than any Superior FEI Proposal or related FEI Acquisition Transaction. Such FEI Stockholder shall promptly advise FEI and the Company of any FEI Acquisition Proposal (including the identity of the person or entity making or submitting such FEI Acquisition Proposal and the terms thereof) that is made or submitted by any person or entity after the date of this Agreement. Such FEI Stockholder shall keep FEI and the Company reasonably informed with respect to the status of any such FEI Acquisition Proposal. Such FEI Stockholder shall immediately cease and cause to be terminated any existing discussions with any person or entity that relate to any FEI Acquisition Proposal or FEI Acquisition Transaction, other than discussions or negotiations with FEI and the Company or their Affiliates or Representatives.

ARTICLE IV

Miscellaneous

4.01 *Termination of Agreement.* The provisions of this Agreement and the Proxy shall automatically terminate upon, and be of no further force or effect after, the earliest to occur of (i) the termination of the Merger Agreement in accordance with its terms, (ii) the Effective Time, and (iii) the execution and delivery by any party to the Merger Agreement of any amendment thereto which would cause each share of FEI Stock to be converted into the right to receive fewer than 1.355 shares of Company Stock (as adjusted for any stock splits, reverse stock splits, stock dividends or similar events).

4.02 *Entire Agreement.* This Agreement and the Proxy contain the entire agreement among the parties relating to the transactions which are the subject of this Agreement, and all prior and

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contemporaneous negotiations, understandings and agreements among the parties (whether written or oral) with regard to the subject matter of this Agreement are superseded by this Agreement, and there are no representations, warranties, understandings or agreements concerning the transactions which are the subject of this Agreement or those other documents other than those expressly set forth in this Agreement.

4.03 *Captions.* The captions of the articles and paragraphs of this Agreement are for reference only, and do not affect the meaning or interpretation of this Agreement.

4.04 *Binding Agreement; Assignment.*

(a) Such FEI Stockholder agrees that this Agreement and the obligations hereunder shall attach to its Stockholder FEI Shares and shall be binding upon any person to which record or Beneficial Ownership of such Stockholder FEI Shares shall pass, whether by operation of law or otherwise, including, without limitation, such FEI Stockholder's successors, partners or Transferees (for value or otherwise) and any other successors in interest. Notwithstanding any transfer of FEI Common Stock, the transferor shall remain liable for the performance of all obligations under this Agreement of the transferor.

(b) Notwithstanding anything to the contrary set forth herein, except in accordance with Section 3.03(a) hereto, no party hereto may assign any of its rights or obligations hereunder, by operation of law or otherwise, without the prior written consent of the other parties hereto; *provided* that the Company may assign, in its sole discretion, its rights and obligations hereunder to any direct or indirect wholly owned subsidiary of the Company, but no such assignment shall relieve the Company of its obligations hereunder if such assignee does not perform such obligations.

4.05 *Notices and Other Communications.* Any notice or other communication under this Agreement must be in writing and will be deemed given when delivered in person or sent by facsimile (with proof of receipt at the number to which it is required to be sent), or on the third business day after the day on which mailed by first class mail from within the United States of America, to the following addresses (or such other address as may be specified after the date of this Agreement by the party to which the notice or communication is sent):

If to the Company to:
Veeco Instruments Inc.
Corporate Headquarters
100 Sunnyside Boulevard
Woodbury, NY 11797
Attention: Greg Robbins
Telephone: (516) 677-0200
Telecopier: (516) 677-9125
with a copy to:
Kaye Scholer LLP
425 Park Avenue
New York, New York 10022
Attention: Rory A. Greiss, Esq.
Telephone: (212) 836-8261
Telecopier: (212) 836-7152

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If to such FEI Stockholder:
Address set forth on the signature page hereto

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4.06 *Governing Law.* THIS AGREEMENT AND THE PROXY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF OREGON APPLICABLE TO AGREEMENTS MADE AND PERFORMED IN SUCH STATE AND WITHOUT REGARD TO CONFLICTS OF LAWS DOCTRINES.

4.07 *Amendments.* Prior to the Effective Time, this Agreement may be amended only by a document in writing signed by each of the parties hereto.

4.08 *Counterparts.* This Agreement may be executed in two or more counterparts, some of which may contain the signatures of some, but not all, the parties hereto. Each of those counterparts will be deemed an original, but all of them together will constitute one and the same Agreement.

4.09 *Severability.* If any provision of this Agreement is held to be illegal, invalid or unenforceable, and if the rights or obligations of any party hereto under this Agreement will not be materially and adversely affected thereby, (i) such provision will be fully severable, (ii) this Agreement will be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part hereof, (iii) the remaining provisions of this Agreement will remain in full force and effect and will not be affected by the illegal, invalid or unenforceable provision or by its severance herefrom and (iv) in lieu of such illegal, invalid or unenforceable provision, there will be added automatically as a part of this Agreement a legal, valid and enforceable provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible.

4.10 *Enforcement.* The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement and the Proxy were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties hereto shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and the Proxy and to enforce specifically the terms and provisions of this Agreement and the Proxy in any Federal court located in the State of Delaware or in a Delaware state court, this being in addition to any other remedy to which they are entitled at law or in equity. In addition, each of the Parties hereto (i) consents to the personal jurisdiction of any Federal court located in the State of Delaware or any Delaware state court in any action or proceeding relating to or arising out of this Agreement (including, with respect to the Stockholder, the Proxy) or any of the transactions contemplated hereby, (ii) agrees that such Party will not attempt to deny or defeat such personal jurisdiction by motion or other request for leave from any such court, (iii) agrees that such Party will not seek to change the venue of any such action or proceeding or otherwise to move any such action or proceeding to another court, whether because of inconvenience of the forum or otherwise (*provided* that nothing in this Section will prevent a party from removing an action or proceeding from a Delaware state court to a Federal court located in the State of Delaware), (iv) agrees that such Party will not bring any action relating to this Agreement or the Proxy or any of the transactions contemplated hereby or thereby in any court other than a Federal court sitting in the State of Delaware or a Delaware state court and (v) waives any right to trial by jury with respect to any claim or proceeding related to or arising out of this Agreement or the Proxy or any of the transactions contemplated hereby or thereby.

4.11 *Further Assurances.* From time to time, at the Company's request and without further consideration, such FEI Stockholder shall execute and deliver such additional documents and take all such further lawful action as may be necessary or appropriate to effect the full and prompt performance of such FEI Stockholder's obligations pursuant to this Agreement and the validity and enforceability of the Proxy.

[Remainder of this page intentionally left blank]

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IN WITNESS WHEREOF, each party hereto has caused this Agreement to be duly authorized and signed as of the date in the first paragraph of this Agreement.