

GROSSMAN D KEITH
 Form 4
 May 21, 2010

FORM 4

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
GROSSMAN D KEITH

2. Issuer Name and Ticker or Trading Symbol
THORATEC CORP [THOR]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
6035 STONERIDGE DRIVE
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
05/19/2010

Director 10% Owner
 Officer (give title below) Other (specify below)

PLEASANTON, CA 94588
 (City) (State) (Zip)

4. If Amendment, Date Original Filed (Month/Day/Year)

6. Individual or Joint/Group Filing (Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				(A) or (D) Price			
Common Stock	05/13/2010		G	V Amount D \$ 0 (3)	10,000	D	
Common Stock	05/18/2010		G	V Amount D \$ 0 (3)	8,750	D	
Common Stock	05/20/2010		G	V Amount D \$ 0 (3)	7,500	D	
Common Stock (1)	05/19/2010(2)		A	V Amount A \$ 0 (3)	12,500	D	
Common Stock	05/13/2010		G	V Amount A \$ 0 (3)	9,508	I	By Separate Property

Common Stock	05/18/2010	G	1,250	A	\$ 0 (3)	10,758	I	Trust ⁽⁴⁾ By Separate Property Trust ⁽⁴⁾
Common Stock	05/20/2010	G	1,250	A	\$ 0 (3)	12,008	I	By Separate Property Trust ⁽⁴⁾

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Owned Following Reporting Transaction (Instr. 6)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
GROSSMAN D KEITH 6035 STONERIDGE DRIVE PLEASANTON, CA 94588		X		

Signatures

/s/David A. Lehman,
Attorney-In-Fact

05/20/2010

__Signature of Reporting Person

Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Represents restricted stock units. Each restricted stock unit represents a right to receive one share of Thoratec Corporation common stock upon vesting. The restricted stock units vest in four equal annual installments commencing one year after the grant date.
- (2) Annual stock grant according to the Company's 2006 Incentive Stock Plan.
- (3) Restricted stock was granted pursuant to the Company's 2006 Incentive Stock Plan with no payment received for the restricted stock.
- (4) D. Keith Grossman & Hallie Hildebrand Grossman, TTEES Grossman Family Trust

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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