THORATEC CORP Form 424B3 October 07, 2004

Filed under Rule 424(b)(3) of the Securities Act of 1933, relating to Registration No. 333-118274

Prospectus Supplement No. 1 to Prospectus Dated September 23, 2004 of

## THORATEC CORPORATION

Relating to

\$247,427,000 Senior Subordinated Convertible Notes due 2034 and Shares of Common Stock Issuable upon Conversion of the Notes

This prospectus supplement no. 1 relates to the resale by selling securityholders of Thoratec Corporation s Senior Subordinated Convertible Notes Due 2034 and the shares of Thoratec common stock issuable upon conversion of the notes.

You should read this prospectus supplement no. 1 in conjunction with the prospectus dated September 23, 2004, which should be delivered in conjunction with this prospectus supplement. This prospectus supplement is not complete without, and may not be delivered or used except in conjunction with, the prospectus, including any amendments or supplements to it. This prospectus supplement is qualified by reference to the prospectus, except to the extent that the information provided by this prospectus supplement supercedes information contained in the prospectus.

Investing in the notes and the common stock issuable upon conversion of the notes involves risk. See the discussion entitled Risk Factors beginning on page 6 of the prospectus dated September 23, 2004.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the prospectus dated September 23, 2004. Any representation to the contrary is a criminal offense.

The table under the caption Selling Securityholders beginning on page 51 of the prospectus is hereby supplemented and amended by updating information as to certain selling securityholders identified in the table below. We prepared this table based on information supplied to us by the selling securityholders named in the table below on or prior to October 7, 2004. Information about the selling securityholders may change over time. If required, any changed or new information given to us will be set forth in supplements to the prospectus or amendments to the registration statement of which this prospectus is a part, if and when necessary.

We have assumed for purposes of the table below that the selling securityholders will sell all of the notes and all of the common stock issuable upon conversion of the notes pursuant to this prospectus supplement and the

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prospectus, and that any other shares of our common stock beneficially owned by the selling securityholders will continue to be beneficially owned.

Except as set forth below, none of the selling securityholders has, or within the past three years has had, any position, office or other material relationship with us or any of our predecessors or affiliates.

The selling securityholders identified below may have sold, transferred or otherwise disposed of, pursuant to transactions exempt from the registration requirements of the Securities Act of 1933, as amended, all or a portion of their notes since the date on which they provided the information regarding their notes.

Name of Selling Securityholder	Principal Amount of Notes Beneficially Owned and Offered (USD)(4)	Percentage of Notes Outstanding(%)	Number of Shares of Common Stock Beneficially Owned(1)(2)	Number of Shares of Common Stock Offered (1)	Number of Shares of Common Stock Beneficially Owned after the Offering(2)(3)	Natural Person(s) with Voting  or Investment Power
BNP Paribas Equity Strategies, SNC (+)(5)	7,429,000	3.00	227,068	218,897	8,171	Christian Menestrier
CooperNeff Convertible Strategies (Cayman) Master Fund, LP (6)	7,313,000	2.96	215,479	215,479	0	Christian Menestrier
DBAG London (+) (7)	10,833,000	4.38	319,197	319,197	0	Patrick Corrigan
DKR Saturn Event Driven Holding Fund Ltd. (8)	9,500,000	3.84	279,919	279,919	0	(9)
DKR Saturn Multi-Strategy Holding Fund Ltd. (10)	9,500,000	3.84	279,919	279,919	0	(11)
Lyxor Convertible Arbitrage Fund Limited (12)	1,287,000	*	37,922	37,922	0	Christian Menestrier
Radcliffe SPC Ltd. for and on behalf of the Class A Convertible Crossover Segregated Portfolio (13)	15,000,000	6.06	441,978	441,978	0	(14)
Singlehedge US Convertible Arbitrage Fund (15)	1,950,000	*	57,457	57,457	0	Christian Menestrier
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Sunrise Partners Limited Partnership (+) (16) 700,000 \* 20,626 0 S. Donald Sussman

- \* Less than one percent (1%).
- # The selling securityholder is a registered broker-dealer.
- + The selling securityholder is an affiliate of a registered broker-dealer.
- (1) Assumes conversion of all of the holder s notes at a conversion rate of 29.4652 shares of common stock per \$1,000 principal amount at maturity of the notes. This conversion rate is subject to adjustment as described under "Description of Notes Conversion Rights. As a result, the number of shares of common stock issuable upon conversion of the notes may increase or decrease in the future. Excludes shares of common stock that may be issued by us upon the repurchase of the notes as described under "Description of Notes Repurchase of the Notes by Us at the Option of Holders Upon a Fundamental Change and fractional shares. Holders will receive a cash adjustment for any fractional share amount resulting from conversion of the notes, as described under "Description of Notes Conversion Rights. in the prospectus.
- (2) The number of shares of common stock beneficially owned by each holder named above is less than 1% of our outstanding common stock, calculated based on 49,663,384 shares of common stock outstanding as of September 13, 2004. In calculating this amount for each holder, we treated as outstanding the number of shares of common stock issuable upon conversion of all of that holder s notes, but we did not assume conversion of any other holder s notes.
- (3) For the purposes of computing the number and percentage of notes and shares to be held by the selling shareholders after the conclusion of the offering, we have assumed for purposes of the table above that the selling securityholders named above will sell all of the notes and all of the common stock issuable upon conversion of the notes offered by this prospectus supplement and the prospectus, and that any other shares of our common stock beneficially owned by these selling securityholders will continue to be beneficially owned.
- (4) The sum of the listed principal amounts of notes beneficially owned by the selling securityholders named in the table above combined with those previously listed in the prospectus dated September 23, 2004, exceeds \$247,427,000 because certain selling securityholders may have transferred notes or otherwise reduced their position prior to selling pursuant to this prospectus, and as a result we received beneficial ownership information from additional selling securityholders. However, the maximum principal amount of notes that may be sold under this prospectus will not exceed \$247,427,000.
- (5) This selling securityholder was previously listed as holding \$1,468,000 of the notes. This information supercedes all prior information concerning BNP Paribas Equity Strategies, SNC.
- (6) This selling securityholder was previously listed as holding \$1,580,000 of the notes. This information supercedes all prior information concerning CooperNeff Convertible Strategies (Cayman) Master Fund, LP.
- (7) This selling securityholder was previously listed as holding \$5,439,000 of the notes. This information supercedes all prior information concerning DBAG London.
- (8) This selling securityholder was previously listed as holding \$4,500,000 of the notes. This information supercedes all prior information concerning DKR Saturn Event Driven Holding Fund Ltd.
- (9) DKR Saturn Management LP is a registered investment adviser with the Securities and Exchange Commission and as such, is the investment Manager to DKR Saturn Event Driven Holding Fund Ltd. DKR Saturn has retained certain individuals to act as the portfolio manager to the Fund managed by DKR Saturn. As such, DKR Saturn and certain portfolio managers have shares dispositive and voting power over the securities. For shares included in this

questionnaire, DKR Saturn Management Company LP has been retained to act as the portfolio manager to the fund. Ron Phillips has trading authority over the Fund.

- (10) This selling securityholder was previously listed as holding \$4,500,000 of the notes. This information supercedes all prior information concerning DKR Saturn Multi-Strategy Holding Fund Ltd.
- (11) DKR Saturn Management LP is a registered investment adviser with the Securities and Exchange Commission and as such, is the investment Manager to DKR Saturn Multi-Strategy Fund Ltd. DKR Saturn has retained certain individuals to act as the portfolio manager to the Fund managed by DKR Saturn. As such, DKR Saturn and certain portfolio managers have shares dispositive and voting power over the securities. For shares included in this questionnaire, DKR Saturn Management Company LP has been retained to act as the portfolio manager to the fund. Mike Cotton has trading authority over the Fund.
- (12) This selling securityholder was previously listed as holding \$292,000 of the notes. This information supercedes all prior information concerning Lyxor Convertible Arbitrage Fund Limited.
- (13) This selling securityholder was previously listed as holding \$8,500,000 of the notes. This information supercedes all prior information concerning Radcliffe SPC Ltd. for and on behalf of the Class A Convertible Crossover Segregated Portfolio.
- (14) Pursuant to an investment management agreement, RG Capital Management, L.P. ( RG Capital ) serves as the investment manager of Radcliffe SPC, Ltd. s Class A Convertible Crossover Segregated Portfolio. RGC Management Company, LLC ( Management ) is the general partner of RG Capital. Steve Katznelson and Gerald Stahlecker serve as the managing members of Management. Each of RG Capital, Management and Messr. Katznelson and Stahlecker disclaims beneficial ownership of the securities owned by Radcliffe SPC, Ltd. for and on behalf of the Class A Convertible Crossover Segregated Portfolio.
- (15) This selling securityholder was previously listed as holding \$360,000 of the notes. This information supercedes all prior information concerning Singlehedge US Convertible Arbitrage Fund.
- (16) This selling securityholder was previously listed as holding \$570,000 of the notes. This information supercedes all prior information concerning Sunrise Partners Limited Partnership.

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The date of this prospectus supplement is October 7, 2004		