
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-8
Registration Statement
Under
The Securities Act of 1933

THERMO FIBERTEK INC.
(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of
incorporation or organization)

52-1762325
(I.R.S. Employer
Identification Number)

245 Winter Street
Waltham, Massachusetts 02451
(Address of Principal Executive Offices) (Zip Code)

THERMO FIBERTEK INC. AMENDED AND RESTATED EMPLOYEES' STOCK PURCHASE PLAN

(Full Title of the Plan)

Sandra L. Lambert, Secretary
Thermo Electron Corporation
81 Wyman Street
P. O. Box 9046
Waltham, Massachusetts 02454-9046
(Name and Address of Agent for Service)

(781) 622-1000
(Telephone Number, Including Area Code, of Agent For Service)

Copies to:
Seth H. Hoogasian, Esq., General Counsel
Thermo Electron Corporation
81 Wyman Street
P. O. Box 9046
Waltham, Massachusetts 02454-9046

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$.01 par value per share	750,000 shares	\$3.84375(1)	\$2,882,812.50(1)	\$761.07

In addition, pursuant to Rule 416(c) under the Securities Act of 1933, this Registration Statement also covers an indeterminate number of shares of Thermo Fibertek's common stock as may be issuable in connection with adjustments under the employee benefit plan described herein to reflect certain changes in Thermo Fibertek's capital structure, including stock dividends or stock splits.

(1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(h) under the Securities Act of 1933. The calculation of the proposed maximum aggregate offering price has been based upon (1) the registration hereunder of an aggregate of

750,000 shares and (2) the average of the high and low sales prices, \$3.9375 and \$3.75, respectively, of Thermo Fibertek Inc.'s common stock on the American Stock Exchange on October 18, 2000 as reported in the consolidated transaction reporting system.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information required by Part I is included in documents sent or given to the respective participants in the plan registered hereunder pursuant to Rule 428(b)(1) under the Securities Act of 1933, as amended.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

Thermo Fibertek is subject to the informational and reporting requirements of Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, and in accordance therewith files reports, proxy statements and other information with the Securities and Exchange Commission. The following documents, which are on file with the Commission, are incorporated in this Registration Statement by reference:

- (a) Thermo Fibertek's Annual Report on Form 10-K for the fiscal year ended January 1, 2000, as amended.
- (b) Thermo Fibertek's Quarterly Report on Form 10-Q for the quarter ended April 1, 2000.
- (c) Thermo Fibertek's Quarterly Report on Form 10-Q for the quarter ended July 1, 2000.
- (d) Thermo Fibertek's Current Report on Form 8-K filed with the Commission on February 1, 2000.
- (e) The description of the common stock which is contained in Thermo Fibertek's Registration Statement on Form 8-A filed under the Exchange Act, as such description may be amended from time to time.

All reports or proxy statements filed by Thermo Fibertek pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act subsequent to the date of this Registration Statement and prior to the filing of a post-effective amendment that indicates that all securities offered herein have been sold, or that deregisters all such securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the respective dates of filing of such documents.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the common stock offered hereby has been passed upon by Seth H. Hoogasian, Esq., General Counsel of Thermo Fibertek. Mr. Hoogasian is a full-time employee of Thermo Electron Corporation ("Thermo Electron"), the majority stockholder of Thermo Fibertek, is an officer of Thermo Fibertek and Thermo Electron, and owns or has the right to acquire 19,274 shares of Common Stock, 5,000 shares of Thermo Fibergen Inc., a majority-owned subsidiary of Thermo Fibertek, and 432,413 shares of the common stock of Thermo Electron.

Item 6. Indemnification of Directors and Officers.

The Delaware General Corporation Law and Thermo Fibertek's Certificate of Incorporation and By-Laws limit the monetary liability of directors to Thermo Fibertek and to its stockholders and provide for indemnification of Thermo Fibertek's officers and directors for liabilities and expenses that they may incur in such capacities. In general, officers and directors are indemnified with respect to actions taken in good faith in a manner reasonably believed to be in, or not opposed to, the best interests of Thermo Fibertek and, with respect to any criminal action or proceeding, actions that the indemnitee had no reasonable cause to believe were unlawful. Thermo Fibertek also has indemnification agreements with its directors and officers that provide for the maximum indemnification allowed by law.

Thermo Electron has an insurance policy which insures the directors and officers of Thermo Electron and its subsidiaries, including Thermo Fibertek, against certain liabilities which might be incurred in connection with the performance of their duties.

Item 7. Exemption from Registration Claimed.

Not Applicable.

Item 8. Exhibits.

The Exhibit Index immediately preceding the exhibits is attached hereto and incorporated herein by reference.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities

Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by Thermo Fibertek pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of Thermo Fibertek's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of Thermo Fibertek pursuant to the foregoing provisions, or otherwise, Thermo Fibertek has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by Thermo Fibertek of expenses incurred or paid by a director, officer or controlling person of Thermo Fibertek in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, Thermo Fibertek will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Thermo Fibertek certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on this 23rd day of October, 2000.

THERMO FIBERTEK INC.

By: /s/ William A. Rainville

William A. Rainville
Its: President and Chief Executive Officer

POWER OF ATTORNEY

Each of the undersigned Directors and Officers of Thermo Fibertek Inc. hereby appoints Theo Melas-Kyriazi, Kenneth J. Apicerno, Seth H. Hoogasian and Sandra L. Lambert, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ William A. Rainville ----- William A. Rainville	President, Chief Executive Officer and Director	October 23, 2000
/s/ Theo Melas-Kyriazi ----- Theo Melas-Kyriazi	Chief Financial Officer (Principal Financial and Accounting Officer)	October 23, 2000

/s/ Donald E. Noble Director October 23, 2000

Donald E. Noble

/s/ Francis L. McKone Director October 23, 2000

Francis L. McKone

/s/ Richard F. Syron Chairman and Director October 23, 2000

Richard F. Syron

EXHIBIT INDEX

Exhibit Number	Description
5	Opinion of Seth H. Hoogasian, Esq.
23.1	Consent of Arthur Andersen LLP
23.2	Consent of Seth H. Hoogasian, Esq. (contained in his opinion filed as Exhibit 5).
24	Power of Attorney (see signature pages to this Registration Statement).

Thermo Fibertek Inc.
245 Winter Street
Waltham, Massachusetts 02451

October 23, 2000

Thermo Fibertek Inc.
245 Winter Street
Waltham, Massachusetts 02451

Re: Registration Statement on Form S-8 Relating to 750,000 Shares of the
Common Stock, \$.01 par value, of Thermo Fibertek Inc.

Dear Sirs:

I am General Counsel to Thermo Fibertek Inc., a Delaware corporation (the "Company"), and have acted as counsel in connection with the registration under the Securities Act of 1933, as amended, on Form S-8 (the "Registration Statement"), of 750,000 shares of the Company's Common Stock, \$.01 par value per share (the "Shares") subject to Company's Amended and Restated Employees' Stock Purchase Plan (the "Plan").

I or a member of my legal staff have reviewed the corporate proceedings taken by the Company with respect to the authorization of the issuance of the Shares. I or a member of my legal staff have also examined and relied upon originals or copies, certified or otherwise authenticated to my satisfaction, of all corporate records, documents, agreements or other instruments of the Company and have made all investigations of law and have discussed with the Company's representatives all questions of fact that I have deemed necessary or appropriate.

Based upon and subject to the foregoing, I am of the opinion that:

1. The Company is a corporation validly existing and in corporate good standing under the laws of the State of Delaware.
2. The issuance and sale of the Shares as contemplated in the Registration Statement have been duly authorized by the Company.
3. The Shares, when issued and sold in accordance with the provisions of the Plan, will be validly issued, fully paid and nonassessable.

This opinion is limited to the applicable provisions of the Delaware Constitution, the General Corporation Law of the State of Delaware ("Delaware Law") and reported judicial decisions interpreting Delaware Law.

I hereby consent to the filing of this opinion as Exhibit 5 to the Registration Statement.

Very truly yours,

/s/ Seth H. Hoogasian

Seth H. Hoogasian
General Counsel

Consent of Independent Public Accountants

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement on Form S-8 of our report dated February 9, 2000, included in Thermo Fibertek Inc.'s Annual Report on Form 10-K for the year ended January 1, 2000, and to all references to our Firm included in this registration statement.

Arthur Andersen LLP

Boston, Massachusetts
October 23, 2000