

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

**FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

EMCORE CORPORATION
(Exact name of registrant as specified in its charter)

New Jersey
(State or other jurisdiction of
incorporation or organization)

**10420 Research Road SE
Albuquerque, New Mexico 87123**
(Address, including zip code, of Principal Executive Offices)

22-2746503
(I.R.S. Employer
Identification Number)

EMCORE Corporation 2000 Employee Stock Purchase Plan
(Full title of the plan)

**Mark B. Weinswig
Chief Financial Officer
EMCORE Corporation
10420 Research Road SE
Albuquerque, New Mexico 87123**
(Name and address of agent for service)

(505) 332-5000
(Telephone number, including area code, of agent for service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act. ☐ Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to Be Registered (1)	Proposed Maximum Offering Price Per Unit (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee (2)
Common Stock, no par value per share	500,000 shares	\$3.61 (3)	\$1,804,100	\$246.08

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), the Registration Statement also covers an indeterminate number of shares that may be offered or issued as a result of stock splits, stock dividends, or similar transactions.
- (2) Estimated pursuant to Rule 457(h) and Rule 457(c) of the General Rules and Regulations under the Securities Act for the purpose of computing the registration fee, based on the average of the high and low sales prices on The NASDAQ Global Market on December 17, 2012, which was \$4.25.
- (3) The proposed maximum offering price per share of \$3.61 was determined by discounting the offering price per share (as computed in note 2 above) by 15% in accordance with the terms of the ESPP.

This Registration Statement shall become effective upon filing in accordance with Rule 462(a) under the Securities Act.

EXPLANATORY NOTE

Pursuant to General Instruction E of Form S-8, EMCORE Corporation (the “Registrant”) is filing this Registration Statement in order to register an additional 500,000 shares of the Registrant's Common Stock issuable under the EMCORE Corporation 2000 Employee Stock Purchase Plan. These additional securities are of the same class and relate to the same employee benefit plan as those shares registered on the Registrant's registration statements on Form S-8 previously filed with the Commission on May 18, 2000, March 10, 2006, June 30, 2009, and July 25, 2011 (File Nos. 333-37306, 333-132318, 333-160360, and 333-175777, respectively), with respect to the issuance of an aggregate 1,625,000 shares (reflecting the 4:1 reverse stock split effected on February 15, 2012) of Common Stock, which are hereby incorporated by reference.

PART II INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents which have been filed (other than filings or portions of filings that are furnished under applicable SEC rules rather than filed) by the Registrant with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), are incorporated by reference herein and shall be deemed to be a part hereof:

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2012, filed with the Commission on December 13, 2012;
- (b) All other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since September 30, 2012; and
- (c) The description of the Registrant's Common Stock contained in the Registrant's registration statement on Form 8-A filed with the Commission on February 26, 1997, including any amendments thereto or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed (other than filings or portions of filings that are furnished under applicable SEC rules rather than filed) by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and made a part hereof from their respective dates of filing (such documents, and the documents enumerated above, being hereinafter referred to as “Incorporated Documents”).

Any statement contained in an Incorporated Document shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed Incorporated Document modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information filed under current Item 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 14A:3-5 of the New Jersey Business Corporation Act provides that a corporation may indemnify a corporate agent made a party to a proceeding (other than a proceeding by or in the right of the corporation) by reason of the fact that such person was a corporate agent, against expenses and liabilities in connection with any proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal proceeding (other than a proceeding by or in the right of the corporation) has no reasonable cause to believe his or her conduct was unlawful.

The Registrant's Restated Certificate of Incorporation and By-Laws include provisions (i) to reduce the personal liability of the Registrant's directors for monetary damage resulting from breaches of their fiduciary duty, and (ii) to permit the Registrant to indemnify its directors and officers to the fullest extent permitted by New Jersey law. The Registrant has obtained directors' and officers' liability insurance that insures such persons against the costs of defense, settlement, or payment of a judgment under certain circumstances.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit	
Number	Description of Exhibit
4.1	EMCORE Corporation 2000 Employee Stock Purchase Plan (incorporated by reference to the Appendix of Registrant's Proxy Statement filed on January 27, 2012, as amended on January 30, 2012).
4.2	Restated Certificate of Incorporation, dated February 15, 2012 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on February 16, 2012).
4.3	Amended By-Laws, as amended through August 6, 2012 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on August 7, 2012).
4.4	Specimen Certificate for Shares of Common Stock (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the registration statement on Form S-1 filed on February 24, 1997).
5.1	Legal Opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation.*
23.1	Consent of Independent Registered Public Accounting Firm.*
23.2	Consent of Stradling Yocca Carlson & Rauth, a Professional Corporation (included in its opinion filed as Exhibit 5.1 in this Registration Statement).*
24.1	Powers of Attorney (included on the signature page to this Registration Statement).*

* Filed herewith

Item 9. Undertakings.

(a) Subsequent Disclosure

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;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this 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% 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) shall not apply if the information required to be included in a post-effective amendment by these paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, 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) Incorporation by Reference

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act), 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) Commission Position on Indemnification

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant 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, the registrant 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant 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 Albuquerque, State of New Mexico, on December 27, 2012.

EMCORE CORPORATION

By: /s/ Mark B. Weinswig
Mark B. Weinswig
Chief Financial Officer

POWER OF ATTORNEY

We, the undersigned directors and officers of EMCORE Corporation do hereby constitute and appoint Hong Q. Hou, Ph.D. and Mark B. Weinswig, jointly and severally, as our true and lawful attorneys-in-fact and agents, to do any and all acts and things in our name and behalf in our capacities as directors and officers and to execute any and all instruments for us and in our names in the capacities indicated below, which said attorney-in-fact and agent may deem necessary or advisable to enable said corporation to comply with the Securities Act of 1933, as amended, and any rules, regulations and requirements of the Securities and Exchange Commission, in connection with this registration statement, including specifically but without limitation, power and authority to sign for us or any of us in our names in the capacities indicated below, any and all amendments (including post-effective amendments) to this registration statement; and we do hereby ratify and confirm all that said attorney and agent shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Thomas J. Russell, Ph.D</u> Thomas J. Russell, Ph.D	Chairman Emeritus	December 24, 2012
<u>/s/ Reuben F. Richards, Jr.</u> Reuben F. Richards, Jr.	Chairman of the Board	December 24, 2012
<u>/s/ Hong Q. Hou, Ph.D.</u> Hong Q. Hou, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	December 24, 2012
<u>/s/ Mark B. Weinswig</u> Mark B. Weinswig	Chief Financial Officer (Principal Financial and Accounting Officer)	December 24, 2012
<u>/s/ Charles T. Scott</u> Charles T. Scott	Director	December 24, 2012
<u>/s/ John Gillen</u> John Gillen	Director	December 24, 2012
<u>/s/ Robert L. Bogomolny</u> Robert L. Bogomolny	Director	December 24, 2012
<u>/s/ Sherman McCorkle</u> Sherman McCorkle	Lead Independent Director	December 24, 2012
<u>/s/ James A. Tegnalia</u> James A. Tegnalia	Director	December 24, 2012

EXHIBIT INDEX

Exhibit

Number

Description of Exhibit

- | | |
|------|--|
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* Filed herewith

Stradling Yocca Carlson & Rauth

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
660 Newport Center Drive, Suite 1600
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TELEPHONE (949) 725-4000
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SAN FRANCISCO
(415) 283-2240
SANTA BARBARA
(805) 564-0065
SACRAMENTO
(916) 449-2350

December 24, 2012

EMCORE Corporation
10420 Research Road, SE
Albuquerque, NM 87123

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

At your request, we have examined the form of Registration Statement on Form S-8 (the "Registration Statement") being filed by EMCORE Corporation, a New Jersey corporation (the "Company"), with the Securities and Exchange Commission in connection with the registration under the Securities Act of 1933, as amended (the "Securities Act"), of 500,000 shares of the Registrant's common stock, no par value (the "Shares"), reserved for issuance pursuant to the Registrant's 2000 Employee Stock Purchase Plan (the "2000 ESPP").

We have examined the proceedings heretofore taken and are familiar with the additional proceedings proposed to be taken by the Registrant in connection with the authorization, issuance and sale of the Shares.

Based on the foregoing, it is our opinion that the issuance of the Shares against full payment in accordance with the respective terms and conditions of the 2012 Plan will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ Stradling Yocca Carlson & Rauth

Stradling Yocca Carlson & Rauth

Consent of Independent Registered Public Accounting Firm

The Board of Directors
EMCORE Corporation:

We consent to the use of our reports with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting incorporated by reference herein.

/s/KPMG LLP

Albuquerque, New Mexico
December 24, 2012