

**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)

**2015 W. Chestnut Street
Alhambra, California 91803**
(Address, including zip code, of Principal Executive Offices)

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

EMCORE Corporation 2012 Equity Incentive Plan (As Amended and Restated Effective as of January 19, 2017)
(Full title of the plan)

**Jikun Kim
Chief Financial Officer
EMCORE Corporation
2015 W. Chestnut Street
Alhambra, California 91803**
(Name and address of agent for service)

(626) 293-3400
(Telephone number, including area code, of agent for service)

With Copies To:

**Shelly Heyduk, Esq.
O'Melveny & Myers LLP
610 Newport Center Drive, Suite 1700
Newport Beach, California 92660
(949) 823-6900**

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to Be Registered⁽¹⁾	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, no par value per share	2,400,000 ⁽¹⁾ ⁽²⁾ shares	\$8.625 ⁽³⁾	\$20,700,000 ⁽³⁾	\$2,399.13 ⁽³⁾

- (1) This Registration Statement covers, in addition to the number of shares of EMCORE Corporation, a New Jersey corporation (the “Company” or the “Registrant”), common stock, no par value per share (the “Common Stock”), stated above, options and other rights to purchase or acquire the shares of Common Stock covered by this Registration Statement and, pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), an additional indeterminate number of shares, options and rights that may be offered or issued pursuant to the EMCORE Corporation 2012 Equity Incentive Plan (As Amended and Restated Effective as of January 19, 2017) (the “Plan”) as a result of one or more adjustments under the Plan to prevent dilution resulting from one or more stock splits, stock dividends or similar transactions.
- (2) Each share of Common Stock is accompanied by a preferred share purchase right under the Tax Benefits Preservation Plan, dated September 17, 2014, by and between the Company and American Stock Transfer & Trust Company, LLC.
- (3) Pursuant to Securities Act Rule 457(h), the maximum offering price, per share and in the aggregate, and the registration fee were calculated based upon the average of the high and low prices of the Common Stock on May 3, 2017, as quoted on the Nasdaq Global Market.
- The Exhibit Index for this Registration Statement is at page 7.

EXPLANATORY NOTE

This Registration Statement is filed by the Company to register additional securities issuable pursuant to the Plan and consists of only those items required by General Instruction E to Form S-8.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The document(s) containing the information specified in Part I of Form S-8 will be sent or given to participants as specified by Securities Act Rule 428(b)(1).

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents of the Company filed with the Securities and Exchange Commission (the “Commission”) are incorporated herein by reference:

- (a) The Company’s Registration Statements on Form S-8, filed with the Commission on June 8, 2016, July 1, 2014 and December 27, 2012 (Commission File No. 333-211912, 333-185698 and 333-185699, respectively);
- (b) The Company’s Annual Report on Form 10-K for its fiscal year ended September 30, 2016, filed with the Commission on December 7, 2016 (Commission File No. 001-36632);
- (b) The Company’s Quarterly Reports on Form 10-Q for its fiscal quarter ended December 31, 2016, filed with the Commission on February 7, 2017, and its fiscal quarter ended March 31, 2016, filed with the Commission on May 4, 2017 (Commission File No. 001-36632);
- (c) The Company’s Current Reports on Form 8-K, filed with the Commission on October 24, 2016, December 16, 2016 and March 20, 2017 (each, Commission File No. 001-36632); and
- (d) The description of the Company’s Common Stock contained in its Registration Statement on Form 8-A filed with the Commission on February 26, 1997 (Commission File No. 000-22175), and any other amendment or report filed for the purpose of updating such description; and
- (e) The description of the Company’s preferred share purchase right contained in its Registration Statement on Form 8-A filed with the Commission on September 18, 2014 (Commission File No. 001-36632), and any other amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents; provided, however, that documents or information deemed to have been furnished and not filed in accordance with Commission rules shall not be deemed incorporated by reference into this Registration Statement. Any statement contained herein or in a document, all or a portion of which is incorporated or deemed to be incorporated by reference herein, 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 document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or amended, to constitute a part of this Registration Statement.

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 Company's Restated Certificate of Incorporation and By-Laws include provisions (i) to reduce the personal liability of the Company's directors for monetary damage resulting from breaches of their fiduciary duty, and (ii) to permit the Company to indemnify its directors and officers to the fullest extent permitted by New Jersey law. The Company 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. The Company has also entered into indemnification agreements with each of its executive officers and directors. The form of such indemnification agreement is attached as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Commission on December 14, 2012.

Item 8. Exhibits.

See the attached Exhibit Index at page 7, which is incorporated herein by reference.

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 Alhambra, State of California, on May 9, 2017.

EMCORE CORPORATION

By: /s/ Jikun Kim

Jikun Kim

Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Jeffrey Rittichier and Jikun Kim, and each of them, acting individually and without the other, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments, exhibits thereto and other documents in connection therewith) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the 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 or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them individually, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
<u>/s/ Jeffrey Rittichier</u> Jeffrey Rittichier	Chief Executive Officer, Director (Principal Executive Officer)	May 9, 2017
<u>/s/ Jikun Kim</u> Jikun Kim	Chief Financial Officer (Principal Financial and Accounting Officer)	May 9, 2017
<u>s/ Ettore J. Coringrato, Jr.</u> Ettore J. Coringrato, Jr.	Director	May 9, 2017
<u>/s/ Stephen L. Domenik</u> Stephen L. Domenik	Director	May 9, 2017
<u>/s/ Gerald J. Fine, Ph.D.</u> Gerald J. Fine, Ph.D.	Director	May 9, 2017
<u>/s/ Rex S. Jackson</u> Rex S. Jackson	Director	May 9, 2017

EXHIBIT INDEX

Exhibit Number

Description of Exhibit

	Emcore Corporation 2012 Equity Plan (As Amended and Restated Effective as of January 19, 2017). (Filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Commission on March 20, 2017 (Commission File No. 001-36632) and incorporated herein by this reference.)
4.1	
5.1	Opinion of O'Melveny & Myers LLP (opinion re legality).
23.1	Consent of KPMG LLP (consent of independent registered public accounting firm)
23.2	Consent of O'Melveny & Myers LLP (included in Exhibit 5)
24.1	Power of Attorney (included in this Registration Statement under "Signatures").

[O'Melveny & Myers LLP Letterhead]

May 9, 2017

EMCORE Corporation
2015 W. Chestnut Street
Alhambra, California 91803

Re: ***Registration of Securities of EMCORE Corporation***

Ladies and Gentlemen:

In connection with the registration of up to 2,400,000 shares of Common Stock of EMCORE Corporation, a New Jersey corporation (the "Company"), no par value per share (the "Shares"), and additional preferred share purchase rights (the "Rights") pursuant to the Tax Benefits Preservation Plan, dated September 17, 2014, by and between the Company and American Stock Transfer & Trust Company, LLC, as Rights Agent (the "Rights Agent"), under the Securities Act of 1933, as amended, pursuant to a Registration Statement on Form S-8 (the "Registration Statement"), filed with the Securities and Exchange Commission on or about the date hereof, such Shares and related Rights to be issued or delivered pursuant to the EMCORE Corporation 2012 Equity Incentive Plan (As Amended and Restated Effective as of January 19, 2017) (the "Plan"), you have requested our opinion set forth below.

In our capacity as counsel, we have examined originals or copies of those corporate and other records of the Company we considered appropriate.

On the basis of such examination and our consideration of those questions of law we considered relevant, and subject to the limitations and qualifications in this opinion, we are of the opinion that: (1) the Shares and related Rights have been duly authorized by all necessary corporate action on the part of the Company; (2) when issued in accordance with such authorization, the provisions of the Plan and relevant agreements duly authorized by and in accordance with the terms of the Plan, and upon payment for and delivery of the Shares as contemplated in accordance with the Plan, and either (a) the countersigning of the certificate or certificates representing the Shares by a duly authorized signatory of the registrar for the Company's Common Stock, or (b) the book-entry of the Shares by the transfer agent for the Company's Common Stock in the name of The Depository Trust Company or its nominee, the Shares will be validly issued, fully paid and non-assessable; and (3) when issued in accordance with such authorization, the provisions of the Plan and relevant agreements duly authorized by and in accordance with the terms of the Plan, the Rights that accompany such Shares will be validly issued.

We consent to your filing this opinion as an exhibit to the Registration Statement.

Respectfully submitted,

/s/ O'Melveny & Myers LLP

Consent of Independent Registered Public Accounting Firm

The Board of Directors
EMCORE Corporation:

We consent to the use of our reports dated December 7, 2016, with respect to the consolidated balance sheets of EMCORE Corporation as of September 30, 2016 and 2015, and the related consolidated statements of operations and comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended September 30, 2016, and the effectiveness of internal control over financial reporting as of September 30, 2016, incorporated herein by reference.

/s/KPMG LLP

Irvine, California

May 9, 2017