Registration No. 333-278486 Registration No. 333-270494 Registration No. 333-266726 Registration No. 333-264752 Registration No. 333-261493 Registration No. 333-171929 Registration No. 333-185699 Registration No. 333-230709 Registration No. 333-217799 Registration No. 333-211912 Registration No. 333-197179 Registration No. 333-189451 Registration No. 333-185698 Registration No. 333-175777 Registration No. 333-171929 Registration No. 333-160368 Registration No. 333-160360 Registration No. 333-159769 Registration No. 333-132318 Registration No. 333-132317 Registration No. 333-118076 Registration No. 333-118074 Registration No. 333-60816 Registration No. 333-37306 Registration No. 333-27507 Registration No. 333-45827 Registration No. 333-39547 Registration No. 333-36445

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

Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-278486 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-270494 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-266726 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-264752 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-261493 Post-Effective Amendment No. 2 to Form S-8 Registration Statement No. 333-171929 Post-Effective Amendment No. 2 to Form S-8 Registration Statement No. 333-185699 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-230709 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-217799 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-211912 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-197179 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-189451 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-185699 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-185698 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-175777 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-171929 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-160368 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-160360 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-159769 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-132318 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-132317 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-118076 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-118074 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-60816 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-37306 Post-Effective Amendment No. 2 to Form S-8 Registration Statement No. 333-27507 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-45827 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-39547 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-36445 Post-Effective Amendment No. 1 to Form S-8 Registration Statement No. 333-27507

Under

The Securities Act of 1933

EMCORE Corporation

(Exact name of the registrant as specified in its charter)

EMCORE Corporation Amended and Restated 2019 Equity Incentive Plan EMCORE Corporation 2022 New Employee Inducement Plan EMCORE Corporation 2012 Equity Incentive Plan EMCORE Corporation 2010 Equity Incentive Plan EMCORE Corporation 2007 Directors' Stock Award Plan EMCORE Corporation 2000 Employee Stock Purchase Plan EMCORE Corporation 2000 Stock Option Plan EMCORE Corporation 1995 Incentive and Non-Statutory Option Plan EMCORE Corporation Directors' Stock Award Plan EMCORE Corporation Officer and Director Share Purchase Plan EMCORE Corporation 401(k) Plan

22-2746503 (I.R.S. Employer Identification No.)

New Jersey (State or other jurisdiction of incorporation or organization) MicroOptical Devices, Inc. 1996 Stock Option Plan (Full titles of plans)

450 Clark Drive Budd Lake, NJ (Address of principal executive offices) Thomas P. Minichiello Chief Financial Officer EMCORE Corporation 450 Clark Drive Budd Lake, NJ 07828 (Name and address of agent for service)

07828 (Zip Code)

(626) 293-3400

(Telephone number, including area code, of agent for service)

Copies to:

James J. Masetti Davina K. Kaile, Esq. Pillsbury Winthrop Shaw Pittman LLP 2550 Hanover Street Palo Alto, CA 94304 (650) 233-4500

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

Large accelerated filer Non-accelerated filer

х

Accelerated filer Smaller reporting company Emerging growth company

X ..

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.

DEREGISTRATION OF SECURITIES

This Post-Effective Amendment (the "Post-Effective Amendment") is being filed by EMCORE Corporation, a New Jersey corporation (the "Registrant") to deregister all shares of the Registrant's common stock, no par value ("Common Stock"), which are unsold under the following Registration Statements on Form S-8 (each, a "Registration Statement," and collectively, the "Registration Statements"), filed by the Registrant with the Securities and Exchange Commission:

- Registration Statement No. 333-278486, filed on April 3, 2024, registering 789,000 shares of Common Stock under the Registrant's 2019 Equity Incentive Plan;
- Registration Statement No. 333-270494, filed on March 13, 2023, registering 1,549,000 shares of Common Stock under the Registrant's 2019 Equity Incentive Plan;
- Registration Statement No. 333-266726, filed on August 10, 2022, registering 380,000 shares of Common Stock under the Registrant's 2022 New Employee Inducement Plan;
- Registration Statement No. 333-264752, filed on May 6, 2022, registering 1,900,000 shares of Common Stock under the Registrant's 2019 Equity Incentive Plan;
- Registration Statement No. 333-261493, filed on December 3, 2021, registering 2,138,000 shares of Common Stock under the Registrant's 2019 Equity Incentive Plan;
- Registration Statement No. 333-175777, filed on July 25, 2011, registering 3,000,000 shares of Common Stock under the Registrant's 2010 Equity Incentive Plan, shares of Common Stock in an amount equal to \$750,000 (valued as of the date of issuance) under the Registrant's 2007 Directors' Stock Award Plan, and 2,500,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan, as amended by Post-Effective Amendment No. 1 (File No. 333-171929), filed on April 4, 2019;
- Registration Statement No. 333-185699, filed on December 27, 2012, registering 1,000,000 shares of Common Stock under the Registrant's 2012 Equity Incentive Plan, as amended by Post-Effective Amendment No. 1 (File No. 333-185699), filed on April 4, 2019;
- Registration Statement No. 333-230709, filed on April 3, 2019, registering 1,796,000 shares of Common Stock under the Registrant's 2019 Equity Incentive Plan;
- Registration Statement No. 333-217799, filed on May 9, 2017, registering 2,400,000 shares of Common Stock under the Registrant's 2012 Equity Incentive Plan;
- Registration Statement No. 333-211912, filed on June 8, 2016, registering 500,000 shares of Common Stock under the Registrant's 2012 Equity Incentive Plan;
- Registration Statement No. 333-197179, filed on July 1, 2014, registering 1,000,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan and 1,000,000 shares of Common Stock under the Registrant's 2012 Equity Incentive Plan;
- Registration Statement No. 333-189451, filed on June 19, 2013, registering 250,000 shares of Common Stock under the Registrant's 2007 Directors' Stock Award Plan;
- Registration Statement No. 333-185698, filed on December 27, 2012, registering 500,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan;
- Registration Statement No. 333-171929, filed on January 28, 2011, registering 4,000,000 shares of Common Stock under the Registrant's 2010 Equity Incentive Plan and 500,000 shares of Common Stock under the Registrant's Officer and Director Share Purchase Plan;
- Registration Statement No. 333-160368, filed on July 1, 2009, registering 6,500,000 shares of Common Stock under the Registrant's 2000 Stock Option Plan;
- Registration Statement No. 333-160360, filed on June 30, 2009, registering 2,500,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan;

- Registration Statement No. 333-159769, filed on June 5, 2009, registering shares of Common Stock in an amount equal to \$750,000 (valued as of the date of issuance) under the Registrant's 2007 Directors' Stock Award Plan;
- Registration Statement No. 333-132318, filed on March 10, 2006, registering 1,000,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan;
- Registration Statement No. 333-132317, filed on March 10, 2006, registering 2,500,000 shares of Common Stock under the Registrant's 2000 Stock Option Plan;
- Registration Statement No. 333-118076, filed on August 10, 2004, registering 2,100,000 shares of Common Stock under the Registrant's 2000 Stock Option Plan;
- Registration Statement No. 333-118074, filed on August 10, 2004, registering shares of Common Stock in an amount equal to \$250,000 (valued as of the date of issuance) under the Registrant's Directors' Stock Award Plan;
- Registration Statement No. 333-60816, filed on May 11, 2001, registering 4,750,000 shares of Common Stock under the Registrant's 2000 Stock Option Plan;
- Registration Statement No. 333-37306, filed on May 18, 2000, registering 725,000 shares of Common Stock under the Registrant's 2000 Stock Option Plan and 500,000 shares of Common Stock under the Registrant's 2000 Employee Stock Purchase Plan;
- Registration Statement No. 333-45827, filed on February 6, 1998, registering 200,996 shares of Common Stock under the Registrant's MicroOptical Devices, Inc. 1996 Stock Option Plan;
- Registration Statement No. 333-39547, filed on November 5, 1997, registering shares of Common Stock in an amount equal to \$281,250 (valued as of the date of issuance) under the Registrant's Directors' Stock Award Plan;
- Registration Statement No. 333-36445, filed on September 26, 1997, registering shares of Common Stock in an amount equal to \$800,000 (valued as of the date of issuance) under the Registrant's 401(k) Plan; and
- Registration Statement No. 333-27507, filed on May 20, 1997, registering 647,059 shares of Common Stock under the Registrant's 1995 Incentive and Non-Statutory Option Plan, as amended by Post-Effective Amendment No. 1 (File No. 333-27507), filed May 18, 2000.

On February 28, 2025, pursuant to that certain Agreement and Plan of Merger, dated as of November 7, 2024, by and among the Registrant, Velocity One Holdings, LP, a Delaware limited partnership ("Parent"), Aerosphere Power Inc., a New Jersey corporation and indirect wholly owned subsidiary of Parent, and Velocity Merger Sub, Inc., a New Jersey corporation and indirect wholly owned subsidiary of Parent ("Merger Sub"), Merger Sub merged with and into the Registrant (the "Merger"), with the Registrant continuing as the surviving corporation and as an indirect wholly owned subsidiary of Parent.

As a result of the Merger and in connection with the delisting and the deregistration of the Registrant's securities under Section 12(b) of the Securities Exchange Act of 1934, as amended, the Registrant is terminating all offerings of its securities pursuant to its existing registration statements under the Securities Act of 1933, as amended, including the Registration Statements. Pursuant to the undertaking made by the Registrant in the Registration Statements to remove from registration by means of a post-effective amendment any of the securities that had been registered that remain unsold at the termination of the offering, the Registrant is filing this Post-Effective Amendment to terminate the effectiveness of such Registration Statements and to deregister, as of the effectiveness of this Post-Effective Amendment, any and all shares of Common Stock registered thereunder that remain unsold as of the effectiveness date. Upon the effectiveness of this Post-Effective Amendment, no shares of Common Stock will remain registered for sale pursuant to the Registration Statements.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 Post-Effective Amendment to the Registration Statements to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Budd Lake, State of New Jersey, on February 28, 2025.

EMCORE CORPORATION

By: /s/ Matthew Vargas Matthew Vargas

Interim Chief Executive Officer

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

Signature	Title	Date
/s/ Matthew Vargas Matthew Vargas	Interim Chief Executive Officer and Director (<i>Principal Executive Officer</i>)	February 28, 2025
/s/ Thomas P. Minichiello Thomas P. Minichiello	Chief Financial Officer (Principal Financial and Accounting Officer)	February 28, 2025
/s/ Cletus C. Glasener Cletus C. Glasener	Chairman of the Board	February 28, 2025
/s/ Bruce E. Grooms Bruce E. Grooms	Director	February 28, 2025
/s/ David Rogers David Rogers	Director	February 28, 2025
/s/ Jeffrey J. Roncka Jeffrey J. Roncka	Director	February 28, 2025