

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-8
REGISTRATION STATEMENT
Under
the Securities Act of 1933**

CARDIOVASCULAR SYSTEMS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

41-1698056
(I.R.S. Employer
Identification Number)

1225 Old Highway 8 Northwest
St. Paul, Minnesota 55112-6416
(Address of Principal Executive Office and Zip Code)

Cardiovascular Systems, Inc. Amended and Restated 2017 Equity Incentive Plan
(Full Title of the Plan)

Scott R. Ward
Chief Executive Officer
Cardiovascular Systems, Inc.
1225 Old Highway 8 Northwest
St. Paul, Minnesota 55112-6416
(651) 259-1600
(Name, Address and Telephone Number, Including Area Code, of Agent for Service)

Copies to:
Christopher J. Melsha, Esq.
Fredrikson & Byron, P.A.
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402
Fax: (612) 492-7077

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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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)(2)	Proposed Maximum Offering Price Per Share(3)	Proposed Maximum Aggregate Offering Price(3)	Amount of Registration Fee
Common Stock issuable under the Registrant's Amended and Restated 2017 Equity Incentive Plan.	1,700,000	\$25.82	\$43,894,000	\$4,069

- (1) Pursuant to Rule 416 under the Securities Act of 1933, there is also being registered hereunder an indeterminate number of additional securities that may become issuable pursuant to antidilution provisions of the Registrant's Amended and Restated 2017 Equity Incentive Plan.
- (2) Represents shares that are reserved for issuance under the Registrant's Amended and Restated 2017 Equity Incentive Plan.
- (3) Estimated pursuant to Rule 457(h) and Rule 457(c) solely for the purpose of calculating the registration fee and based upon the average of the high and low prices of the Registrant's Common Stock on November 16, 2021, as quoted on the Nasdaq Global Select Market.
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STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8 is filed by Cardiovascular Systems, Inc. (the "Company" or the "Registrant") to register 1,700,000 shares of its common stock, par value \$0.001 per share (the "Additional Shares"), for issuance under the Cardiovascular Systems, Inc. Amended and Restated 2017 Equity Incentive Plan, which amends and restates the Cardiovascular Systems, Inc. 2017 Equity Incentive Plan. The Additional Shares are in addition to the 2,550,000 shares of common stock registered on the Company's Registration Statement on Form S-8 filed on November 17, 2017 (File No. 333-221651) (the "Prior Registration Statement"). This Registration Statement relates to securities of the same class as that to which the Prior Registration Statement relates and is submitted in accordance with General Instruction E to Form S-8 regarding Registration of Additional Securities. Pursuant to General Instruction E of Form S-8, the contents of the Prior Registration Statements are incorporated herein by reference and made part of this Registration Statement, except for Item 8, Exhibits.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
5.1	Opinion of Fredrikson & Byron, P.A., filed herewith.
23.1	Consent of PricewaterhouseCoopers LLP, filed herewith.
23.2	Consent of Fredrikson & Bryon, P.A. (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page hereof).
99.1	Cardiovascular Systems, Inc. Amended and Restated 2017 Equity Incentive Plan, as amended, incorporated by reference to Exhibit A to the Registrant's Definitive Proxy Statement filed September 29, 2021.

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 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of St. Paul, State of Minnesota, on November 18, 2021.

CARDIOVASCULAR SYSTEMS, INC.

By /s/ Scott R. Ward
Scott R. Ward
Chief Executive Officer

Each of the undersigned constitutes and appoints Scott R. Ward and Jeffrey S. Points his or her true and lawful attorney-in-fact and agent, each acting alone, with full powers of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign the Registration Statement on Form S-8 of Cardiovascular Systems, Inc. relating to the Company's Amended and Restated 2017 Equity Incentive Plan and any or all amendments or post-effective amendments to the Registration Statement on Form S-8, and any and all future Registration Statements on Form S-8 filed for the purpose of registering additional shares resulting from share increases under the Company's Amended and Restated 2017 Equity Incentive Plan, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, 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 the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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 date indicated.

Signature	Title	Date
<u>/s/ Scott R. Ward</u> Scott R. Ward	Chairman, President and Chief Executive Officer (principal executive officer)	November 18, 2021
<u>/s/ Jeffrey S. Points</u> Jeffrey S. Points	Chief Financial Officer (principal financial and accounting officer)	November 18, 2021
<u>/s/ Martha Goldberg Aronson</u> Martha Goldberg Aronson	Director	November 18, 2021
<u>/s/ William E. Cohen</u> William E. Cohen	Director	November 18, 2021
<u>/s/ Sachin Jain</u> Sachin Jain	Director	November 18, 2021
<u>/s/ Augustine Lawlor</u> Augustine Lawlor	Director	November 18, 2021
<u>/s/ Erik Paulsen</u> Erik Paulsen	Director	November 18, 2021
<u>/s/ Stephen Stenbeck</u> Stephen Stenbeck	Director	November 18, 2021
<u>/s/ Kelvin Womack</u> Kelvin Womack	Director	November 18, 2021

FREDRIKSON & BYRON, P.A.
200 South Sixth Street, Suite 4000
Minneapolis, Minnesota 55402
Telephone: (612) 492-7000
Facsimile: (612) 492-7077
November 18, 2021

Cardiovascular Systems, Inc.
1225 Old Highway 8 Northwest
St. Paul, MN 55112

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We are acting as corporate counsel to Cardiovascular Systems, Inc. (the "Company") in connection with the filing by the Company of a registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act") covering 1,700,000 shares (the "Shares") of Common Stock issuable pursuant to the Company's Amended and Restated 2017 Equity Incentive Plan (the "Plan").

In acting as such counsel and for the purpose of rendering this opinion, we have reviewed copies of the following, as presented to us by the Company: (i) the Company's Restated Certificate of Incorporation, as amended; (ii) the Company's Amended and Restated Bylaws, as amended; (iii) certain corporate resolutions and minutes adopted by the Board of Directors and stockholders of the Company pertaining to the adoption and approval of the Plan; (iv) the Plan; and (v) the Registration Statement. In our examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity with the original of all documents submitted to us as copies thereof.

Based on, and subject to, the foregoing and upon representations and information provided by the Company or its officers or directors, it is our opinion as of this date that, upon issuance and delivery of the Shares against receipt by the Company of the consideration for the Shares pursuant to the terms of the Plan, the Shares will be validly issued, fully paid and nonassessable.

This opinion is limited to the Delaware General Corporation Law. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission.

Very truly yours,

Fredrikson & Byron, P.A.

By: Christopher J. Melsha

J. Melsha, Vice President

/s/

Christopher

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Cardiovascular Systems, Inc. of our report dated August 19, 2021 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Cardiovascular Systems, Inc.'s Annual Report on Form 10-K for the year ended June 30, 2021.

/s/ PricewaterhouseCoopers LLP

Minneapolis, Minnesota
November 18, 2021