

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

FORM S-8

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

SUNSHINE HEART, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

68-0533453
(I.R.S. Employer Identification Number.)

**12988 Valley View Road
Eden Prairie, MN**
(Address of principal executive offices)

55344
(Zip code)

**SUNSHINE HEART, INC.
2013 NON-EMPLOYEE DIRECTORS' EQUITY INCENTIVE PLAN**
(Full title of the plan)

**David A. Rosa
Chief Executive Officer
Sunshine Heart, Inc.
12988 Valley View Road
Eden Prairie, MN 55344
(952) 345-4200**

(Name, address, including zip code, and telephone number,
including area code, of agent for service)

Copy to:
Phillip D. Torrence, Esq.
Honigman Miller Schwartz and Cohn LLP
350 East Michigan Avenue, Suite 300
Kalamazoo, Michigan 49007
(269) 337-7702

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 definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check One):

Large accelerated filer Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share(2)	Proposed maximum aggregate offering price(2)	Amount of registration fee
Common Stock, par value \$0.0001 per share	300,000	\$ 5.90	\$ 1,768,500	\$ 241.22

- (1) Represents shares of common stock issuable under the Sunshine Heart, Inc. 2013 Non-Employee Directors' Equity Incentive Plan, approved by the registrant's stockholders on May 23, 2013 (the "Plan") and, pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), an indeterminate amount of additional shares that may become issuable under the Plan by reason of certain corporate transactions or events, including any stock dividend, stock split, reorganization or any other similar transaction that affects the stock such that an adjustment is appropriate in order to prevent dilution of the rights of participants under the Plan.
- (2) Estimated solely for the purpose of calculating the registration fee pursuant to paragraphs (c) and (h) of Rule 457 under the Securities Act, on the basis of the average of the high (\$6.06) and low (\$5.73) sales price for the Common Stock of the registrant as quoted on the NASDAQ Stock Market LLC on May 22, 2013, a date within five business days prior to the date of filing of this registration statement.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed by Sunshine Heart, Inc., a Delaware corporation (the “Registrant”), relating to 300,000 shares of its common stock, par value \$0.0001 per share (“Common Stock”), which have been reserved for issuance under the Plan to eligible non-employee directors of the Registrant.

PART I

INFORMATION REQUIRED IN PROSPECTUS

The documents containing the information required in this Part I will be delivered to the participants in the Plan, as specified in Rule 428(b)(1) of the Securities Act. Such documents are not required to be filed with the Securities and Exchange Commission (the “Commission”) as part of this Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents By Reference.

The following documents filed with the Commission by the Registrant are hereby incorporated by reference in this Registration Statement:

- (a) The Registrant’s Annual Report on Form 10-K for the year ended December 31, 2012, filed with the Commission on March 12, 2013;
- (b) The Registrant’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2013, filed with the Commission on May 14, 2013;
- (c) The Registrant’s Current Reports on Form 8-K filed with the Commission on January 16, 2013, February 4, 2013, February 6, 2013, March 13, 2013, April 2, 2013, April 10, 2013 and April 11, 2013, respectively;
- (d) The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2012 from our definitive Proxy Statement for the Annual Meeting of Stockholders held on May 23, 2013, filed with the Commission on April 5, 2013; and
- (e) The description of the Company’s Common Stock contained in the Registration Statement on Form 10 (Registration No. 001-35312) filed pursuant to Section 12(b) on September 30, 2011 and all amendments thereto.

In addition, all documents the Registrant subsequently files pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the filing of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities covered hereby then remaining unsold are incorporated by reference in this Registration Statement and are a part hereof from the date of filing of such documents.

Any statement contained in a document 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 subsequently filed document, which also is or is deemed to be incorporated by reference herein, modifies or supersedes such prior statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant’s certificate of incorporation limits the liability of the Registrant’s directors to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to the Registrant or the Registrant’s stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

The Registrant's bylaws provide that it will indemnify and advance expenses to its directors and officers to the fullest extent permitted by law or, if applicable, pursuant to indemnification agreements. The bylaws further provide that the Registrant may choose to indemnify its other employees or agents from time to time. Subject to certain exceptions and procedures, the Registrant's bylaws also require it to advance to any person who was or is a party, or is threatened to be made a party, to any proceeding by reason of the person's service as one of the Registrant's directors or officers all expenses incurred by the person in connection with such proceeding.

Section 145(g) of the Delaware General Corporation Law and the Registrant's bylaws also permit it to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether the Registrant's bylaws permit indemnification. The Registrant maintains a directors' and officers' liability insurance policy.

The Registrant entered into indemnification agreements with each of its directors and executive officers that provide, in general, that the Registrant will indemnify them to the fullest extent permitted by law in connection with their service to the Registrant or on its behalf and, subject to certain exceptions and procedures, that the Registrant will advance to them all expenses that they incur in connection with any proceeding to which they are, or are threatened to be, a party.

At present, there is no pending litigation or proceeding involving any of the Registrant's directors or officers as to which indemnification is required or permitted, and the Registrant is not aware of any threatened litigation or proceeding that may result in a claim for 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 this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 7. Exemption from Registration Claimed.

Not applicable.

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Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
5.1*	Opinion of Honigman Miller Schwartz and Cohn LLP
10.1	Sunshine Heart, Inc. 2013 Non-Employee Directors' Equity Incentive Plan (incorporated by reference to Appendix A of our Definitive Proxy Statement filed with the Commission on April 5, 2013)
23.1*	Consent of Ernst & Young LLP
23.2*	Consent of Honigman Miller Schwartz and Cohn LLP (included in its opinion filed as Exhibit 5.1 to this Registration Statement)
24*	Powers of Attorney (included with signatures)

* Filed herewith

Item 9. Undertakings.

(a) The 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 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 a 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) and (a)(2) 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 the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement; and

- (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 offer 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 Registrant hereby undertakes that, for the purpose 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

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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 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 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.

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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 Eden Prairie, State of Minnesota, on this 30th day of May, 2013.

SUNSHINE HEART, INC.

By: /s/ JEFFREY S. MATHIESEN

Name: Jeffrey S. Mathiesen

Title: Chief Financial Officer

We, the undersigned officers and directors of Sunshine Heart, Inc., hereby constitute David A. Rosa and Jeffrey S. Mathiesen, as the true and lawful attorneys with full power to them, and each of them singly to sign for us and in our names, in the capacities indicated below the registration statement filed herewith and any amendments to said registration statement, and generally to do all such things in our name and behalf in our capacities as officers and directors to enable Sunshine Heart, Inc. to comply with the provisions of the Securities Act of 1933 and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto. 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.

<u>SIGNATURE</u>	<u>TITLE</u>	<u>DATE</u>
<u>/s/ DAVID A. ROSA</u> David A. Rosa	President, Chief Executive Officer (Principal Executive Officer) and Director	May 30, 2013
<u>/s/ JEFFREY S. MATHIESEN</u> Jeffrey S. Mathiesen	Chief Financial Officer (Principal Financial and Accounting Officer)	May 30, 2013
<u>/s/ PAUL R. BUCKMAN</u> Paul R. Buckman	Director	May 30, 2013
<u>/s/ GEOFFREY E. BROOKE</u> Geoffrey E. Brooke	Director	May 30, 2013
<u>/s/ GREGORY D. WALLER</u> Gregory D. Waller	Director	May 30, 2013
<u>/s/ JOHN L. ERB</u> John L. Erb	Director	May 30, 2013
<u>/s/ WARREN S. WATSON</u> Warren S. Watson	Director	May 30, 2013
<u>/s/ JON W. SALVESON</u> Jon W. Salvesson	Director	May 30, 2013

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23.1*	Consent of Ernst & Young LLP
23.2*	Consent of Honigman Miller Schwartz and Cohn LLP (included in its opinion filed as Exhibit 5.1 to this Registration Statement)
24*	Powers of Attorney (included with signatures)

* Filed herewith

HONIGMAN

Honigman Miller Schwartz and Cohn LLP
Attorneys and Counselors

(313) 465-7000
Fax: (313) 465-8000
www.honigman.com

May 30, 2013

Sunshine Heart, Inc.
12988 Valley View Road
Eden Prairie, MN 55344

RE: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Sunshine Heart, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of a Registration Statement on Form S-8 (the "Registration Statement") for the registration under the Securities Act of 1933, as amended (the "Securities Act"), of a maximum of 300,000 shares of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), to be issued pursuant to awards under the Sunshine Heart, Inc. 2013 Non-Employee Directors' Equity Incentive Plan (the "Plan").

Based on our examination of such documents and other matters as we deem relevant, it is our opinion that the shares of Common Stock to be offered by the Company under the Plan pursuant to the Registration Statement are duly authorized and, when issued and sold by the Company in accordance with the Plan and the awards thereunder, will be legally issued, fully paid and non-assessable.

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 come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission under the Securities Act.

Very truly yours,

/S/ HONIGMAN MILLER SCHWARTZ AND COHN LLP

350 East Michigan Avenue · Suite 300 · Kalamazoo, Michigan 49007-3800
Detroit · Lansing · Oakland County · Ann Arbor · Kalamazoo

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 pertaining to the 2013 Non-employee Directors' Equity Incentive Plan of Sunshine Heart, Inc. of our report dated March 12, 2013, with respect to the consolidated financial statements of Sunshine Heart, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2012, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Minneapolis, Minnesota

May 29, 2013