

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

Amendment No. 1
to
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Mitcham Industries, Inc.
(Exact name of registrant as specified in its charter)

Texas
(State or other jurisdiction of
incorporation or organization)

76-0210849
(I.R.S. Employer
Identification No.)

8141 SH 75 South
P.O. Box 1175
Huntsville, Texas
936-291-2277

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Robert P. Capps
Co-Chief Executive Officer and
Chief Financial Officer
8141 SH 75 South
P.O. Box 1175
Huntsville, Texas
936-291-2277

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

Copies to:

Gillian A. Hobson
Vinson & Elkins L.L.P.
1001 Fannin Street, Suite 2500
Houston, Texas 77002
(713) 758-2222

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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.

Large accelerated filer

Accelerated filer

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

Smaller reporting company

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission acting pursuant to said section 8(a), may determine.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED SEPTEMBER 1, 2016

PROSPECTUS



Mitcham Industries, Inc.

\$50,000,000

**Common Stock
Preferred Stock
Debt Securities
Depository Shares
Warrants**

This prospectus relates to the offer and sale of our (i) common stock, par value \$0.01 per share, (ii) preferred stock, par value \$1.00 per share, (iii) debt securities, (iv) depository shares and (v) warrants, from time to time, in one or more offerings. The aggregate initial offering price of all securities sold by us under this prospectus will not exceed \$50,000,000.

We may offer and sell these securities from time to time in amounts, at prices and on terms to be determined by market conditions and other factors at the time of our offerings. We may offer and sell these securities on a continuous or delayed basis through agents, through underwriters or dealers or directly to one or more purchasers, including existing stockholders. This prospectus provides you with a general description of these securities and the general manner in which we will offer the securities. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus.

Investing in our securities involves risks. You should carefully consider the risk factors described under “[Risk Factors](#)” beginning on page 5 of this prospectus and in the applicable prospectus supplement or any of the documents we incorporate by reference before you make an investment in our securities.

Our common stock is traded on The NASDAQ Capital Market or the “NASDAQ” under the symbol “MIND.” We will provide information in the related prospectus supplement for the trading market, if any, for any other securities that may be offered. On August 31, 2016, the last reported sale price of our common stock on the NASDAQ was \$2.79 per share.

The aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$32.2 million, based on 12,089,758 shares of outstanding common stock as of August 31, 2016, of which 11,529,923 were held by non-affiliates, and a per share price of \$2.79 based on the closing sale price of our common stock on August 31, 2016.

Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75,000,000. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus may not be used without a prospectus supplement.

The date of this prospectus is _____, 2016.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, or the “SEC” using a “shelf” registration process. Under this shelf registration process, we may, over time, offer and sell up to \$50,000,000 in total aggregate offering price of any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of us and the securities offered under this prospectus. Each time we sell securities with this prospectus, we will provide you with a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add to, update or change information in this prospectus. Before you invest in our securities, you should carefully read this prospectus and any prospectus supplement and the additional information described under the heading “Where You Can Find More Information.”

To the extent information in this prospectus is inconsistent with information contained in a prospectus supplement, you should rely on the information in the prospectus supplement. You should read both this prospectus and any prospectus supplement, together with additional information described under the heading “Where You Can Find More Information,” and any additional information that you may need to make your investment decision.

We have not authorized anyone to provide you with any other information. If you receive any unauthorized information, you must not rely on it. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus and any prospectus supplement is not an offer to sell or the solicitation of an offer to buy any securities other than the securities to which they relate and is not an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make an offer or solicitation in that jurisdiction.

You should not assume that the information contained in this prospectus or any prospectus supplement, as well as the information that we have previously filed with the SEC that is incorporated by reference into this prospectus or any prospectus supplement, is accurate as of any date other than the date of such document.

References to “we,” “us,” “our,” “Mitcham” or the “Company” refer to Mitcham Industries, Inc., a Texas corporation, and its consolidated subsidiaries. These subsidiaries include: Klein Marine Systems, Inc. (“Klein”), Mitcham Canada ULC (“MCL”), Seismic Asia Pacific Pty Ltd. (“SAP”), Mitcham Seismic Eurasia LLC (“MSE”), Mitcham Europe Ltd. (“MEL”), Mitcham Marine Leasing Pte. Ltd. (“MML”), Seemap (UK) Ltd. (“Seemap UK”) and Seemap Pte. Ltd. (“Seemap Singapore”).

WHERE YOU CAN FIND MORE INFORMATION

We are incorporating by reference in this prospectus information we file with the SEC, which means that we are disclosing important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC automatically will update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), excluding any information in those documents that is deemed by the rules of the SEC to be furnished not filed, until all offerings under the registration statement are completed:

- our Annual Report on Form 10-K for the year ended January 31, 2016, including information specifically incorporated by reference into such Annual Report on Form 10-K from our Proxy Statement for our 2016 Annual Meeting of Shareholders filed on May 16, 2016;
- our Quarterly Report on Form 10-Q for the quarterly period ended April 30, 2016;
- our Current Reports on Form 8-K filed on January 4, 2016, June 8, 2016, June 10, 2016 and July 25, 2016 (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K); and
- the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on November 18, 1994 pursuant to Section 12 of the Securities Exchange Act of 1934, including any amendments and reports filed for the purpose of updating such description.

These reports contain important information about us, our financial condition and our results of operations.

All future documents filed pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K) after the date on which the registration statement that includes this prospectus was initially filed with the SEC (including all such documents that we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement) and until all offerings under this registration statement are terminated shall be deemed to be incorporated in this prospectus by reference and to be a part hereof from the date of filing of such documents. Any statement contained herein, or in a document incorporated or deemed to be incorporated by reference herein, shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any subsequently filed document that 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 superseded, to constitute a part of this prospectus.

You may request a copy of these filings, which we will provide to you at no cost, by writing or telephoning us at the following address and telephone number:

Mitcham Industries, Inc.
8141 SH 75 South
P.O. Box 1175
Huntsville, Texas 7734
(936) 291-2277
Attention: Chief Financial Officer
<http://www.mitchamindustries.com>

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The information included in this prospectus may be deemed to be forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The words “anticipate,” “believe,” “expect,” “plan,” “intend,” “foresee,” “should,” “would,” “could,” or other similar expressions are intended to identify forward-looking statements, which generally are not historical in nature. These forward-looking statements are based on our current expectations and beliefs concerning future developments and their potential effect on us. While management believes that these forward-looking statements are reasonable as and when made, there can be no assurance that future developments affecting us will be those that we anticipate. All comments concerning our expectations for future revenues and operating results are based on our forecasts for our existing operations and do not include the potential impact of any future acquisitions. Our forward-looking statements involve significant risks and uncertainties (some of which are beyond our control) and assumptions that could cause actual results to differ materially from our historical experience and our present expectations or projections. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, those summarized below:

- decline in the demand for seismic data and our services;
- the effect of changing economic conditions and fluctuations in oil and natural gas prices on exploration activities;
- the effect of uncertainty in financial markets on our customers’ and our ability to obtain financing;
- loss of significant customers;
- increased competition;
- loss of key suppliers;
- seasonal fluctuations that can adversely affect our business;
- fluctuations due to circumstances beyond our control or that of our customers;
- defaults by customers on amounts due us;
- possible impairment of our long-lived assets due to technological obsolescence or changes in anticipated cash flow generated from those assets;
- inability to obtain funding or to obtain funding under acceptable terms;
- intellectual property claims by third parties;
- risks associated with our manufacturing operations;
- the impact of economic and trade sanctions imposed on Russia by the United States and the European Union in response to the political unrest in Ukraine; and
- other risks associated with our foreign operations, including foreign currency exchange risk.
- For additional information regarding known material factors that could cause our actual results to differ materially from our projected results, please see “Risk Factors.”

Readers are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date hereof. We undertake no obligation to publically update or revise any forward-looking statement after the date that it is made, whether as the result of new information, future events or otherwise.

MITCHAM INDUSTRIES, INC.

Mitcham Industries, Inc., a Texas corporation, was incorporated in 1987. We provide equipment to the geophysical, oceanographic and hydrographic industries. Headquartered in Huntsville, Texas, we have a global presence with operating locations in Salem, New Hampshire; Calgary, Canada; Brisbane, Australia; Singapore; Ufa, Bashkortostan, Russia; Budapest, Hungary; Bogota, Colombia and the United Kingdom. Through our Equipment Leasing Segment, we believe we are the largest independent provider of exploration equipment to the seismic industry. Our worldwide Equipment Manufacturing and Sales Segment includes its Seamap business, which designs, manufactures and sells specialized seismic marine equipment and Klein Marine Systems, Inc., which designs, manufactures and sells high performance side scan sonar systems. We operate in two business segments, Equipment Leasing and Equipment Manufacturing and Sales.

Our Equipment Leasing segment is primarily engaged in the leasing of seismic equipment to companies in the oil and gas industry throughout the world. We conduct our leasing business through the Company, our wholly-owned subsidiaries and our branch in Colombia. We also sell new and used seismic equipment from time to time. The subsidiaries that conduct our leasing business are Mitcham Canada ULC, Seismic Asia Pacific Pty Ltd., Mitcham Seismic Eurasia LLC, Mitcham Europe Ltd. and Mitcham Marine Leasing Pte. Ltd.

Our Equipment Manufacturing and Sales segment is engaged in the design, production and sale of marine seismic equipment and oceanographic and hydrographic equipment. The operations of this segment are conducted through our wholly-owned subsidiaries, Seamap (UK) Ltd., Seamap Pte. Ltd., Klein and Seismic Asia Pacific Pty Ltd.

We were incorporated in Texas in 1987. Our principal executive offices are located at 8141 SH 75 South, P.O. Box 1175, Huntsville, Texas 77342. Our common stock is traded on The NASDAQ Global Select Market under the symbol "MIND" and our Series A Preferred Stock (as defined herein) is traded on the The NASDAQ Global Select Market under the symbol "MINDP."

RISK FACTORS

An investment in our securities involves a significant degree of risk. Before you invest in our securities you should carefully consider those risk factors included in our Annual Report on Form 10-K for the fiscal year ended January 31, 2016 filed with the SEC on April 7, 2016, any Quarterly Reports on Form 10-Q and any Current Reports on Form 8-K, which are incorporated herein by reference, and those risk factors that may be included in any applicable prospectus supplement, together with all of the other information included in this prospectus and the documents we incorporate by reference, in evaluating an investment in our securities. If any of the risks discussed in the foregoing documents were to occur, our business, financial condition, results of operations and cash flows could be materially adversely affected. Also, please read “Cautionary Statement Regarding Forward-Looking Statements.”

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we intend to use the net proceeds (after the payment of any offering expenses and/or underwriting discounts and commissions) from the sale of the securities offered by this prospectus and any prospectus supplement for our general corporate purposes, which may include repayment of indebtedness, the financing of capital expenditures, future acquisitions and additions to our working capital.

Any specific allocation of the net proceeds of an offering of securities to a specific purpose will be determined at the time of the offering and will be described in a prospectus supplement relating to such offering. The precise amount and timing of the application of these proceeds will depend upon our funding requirements and the availability and cost of other funds.

DESCRIPTION OF CAPITAL STOCK

Overview

The following is a summary of certain provisions of Texas law and the material terms of our capital stock as contained in our amended and restated articles of incorporation (our “charter”) and our amended and restated bylaws (our “bylaws”). The following descriptions do not purport to be complete statements of the relevant provisions of our charter, our bylaws or the Texas Business Organizations Code (the “TBOC”). You should refer to our charter and bylaws, which are incorporated by reference, along with the applicable provisions of the TBOC.

Authorized Capital Stock

Our authorized capital stock consists of 20,000,000 shares of common stock, par value \$0.01 per share, and 1,000,000 shares of preferred stock, par value \$1.00 per share.

Common Stock

Shares Outstanding. As of August 31, 2016, we had 12,089,758 issued and outstanding shares of common stock.

Dividends. We have not paid any cash dividends on our common stock since our inception, and our board of directors does not contemplate the payment of cash dividends on our common stock in the foreseeable future. It is the present policy of our board of directors to retain earnings, if any, for use in developing and expanding our business. In the future, our payment of dividends on our common stock will also depend on the amount of funds available, our financial condition, capital requirements and such other factors as our board of directors may consider.

Voting Rights. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote at a meeting of our stockholders. In matters other than the election of directors, stockholder approval requires the affirmative vote of a majority of the voting power of our common stock present in person or represented by proxy at the meeting and entitled to vote on the matter, voting as a single class, unless the matter is one upon which, by express provision of law, our charter or our bylaws, a different vote is required. Subject to the rights of the holders of any series of preferred stock to elect directors under specified circumstances, election of directors is determined by a plurality of the votes cast.

In addition to any other vote that may be required by law, applicable stock exchange rule or the terms of any series of our preferred stock, amendments to our charter must be approved by at least a majority of the voting power of all then outstanding shares of capital stock entitled to vote generally in the election of directors, voting as a single class.

Our bylaws may be amended by the vote of at least a majority of our board of directors or the holders of a majority of the voting power of all then outstanding shares of common stock entitled to vote generally in the election of directors, voting together as a single class. Our board of directors may amend or repeal new bylaws adopted by action of the stockholders unless such new bylaw expressly provides otherwise.

Series A Preferred Stock

Shares Outstanding. As of August 31, 2016, we had 320,000 issued and outstanding shares of Series A Preferred Stock. Our Series A Preferred Stock represent all of the Company’s outstanding preferred stock.

Dividends. Holders of our 9.00% Series A Cumulative Preferred Stock, which we refer to as the “Series A Preferred Stock” will be entitled to 9.00% per annum of the \$25.00 per share liquidation preference (equivalent

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to \$2.25 per annum per share), accruing from June 3, 2016. Dividends will be payable to holders of our Series A Preferred Stock quarterly on or about the last day of January, April, July and October of each year, beginning August 1, 2016. The record date for dividend payment will be the 15th day of January, April, July and October of each year; the first dividend record date was July 15, 2016.

Voting Rights. Holders of our Series A Cumulative Preferred Stock generally have no voting rights. However, if we do not pay dividends on the Series A Preferred Stock for six or more quarterly dividend periods (whether or not consecutive), the holders of the Series A Preferred Stock (voting separately as a class with the holders of all other classes or series of our preferred stock that we may issue upon which like voting rights have been conferred and are exercisable and which are entitled to vote as a class with the Series A Preferred Stock) will be entitled to vote for the election of two additional directors to serve on our board of directors until we pay, or declare and set aside funds for the payment of, all dividends that we owe on the Series A Preferred Stock, subject to certain limitations.

In addition, the affirmative vote of the holders of at least two-thirds of the outstanding shares of Series A Preferred Stock is required at any time for us to authorize or issue any class or series of our capital stock ranking senior to the Series A Preferred Stock with respect to the payment of dividends or the distribution of assets on liquidation, dissolution or winding up, to amend any provision of our charter so as to materially and adversely affect any rights of the Series A Preferred Stock or to take certain other actions. If any such amendments to our charter would be material and adverse to holders of the Series A Preferred Stock and any other series of parity preferred stock upon which similar voting rights have been conferred and are exercisable, a vote of at least two-thirds of the outstanding shares of Series A Preferred Stock and the shares of the other applicable series materially and adversely affected, voting together as a class, would be required.

Maturity. The Series A Preferred Stock has no stated maturity and will not be subject to any sinking fund or mandatory redemption. Shares of the Series A Preferred Stock will remain outstanding indefinitely unless we decide to redeem or otherwise repurchase them or they are converted into our common stock in connection with a Change of Control as described below. We are not required to set aside funds to redeem the Series A Preferred Stock.

Optional Redemption. The Series A Preferred Stock is not redeemable by us prior to June 8, 2021 except upon the occurrence of a Change of Control pursuant to the special optional redemption described below. On and after June 8, 2021, we may, at our option, redeem the Series A Preferred Stock, in whole or in part, at any time or from time to time, for cash at a redemption price equal to \$25.00 per share, plus any accumulated and unpaid dividends to, but not including, the redemption date.

Upon the occurrence of a Change of Control (as defined below), we may, at our option, redeem the Series A Preferred Stock, in whole or in part, within 120 days after the first date on which such Change of Control occurred, for cash at a redemption price of \$25.00 per share, plus any accumulated and unpaid dividends to, but not including, the redemption date.

A “Change of Control” is deemed to occur when, after the original issuance of the Series A Preferred Stock, the following have occurred and are continuing:

- the acquisition by any person, including any syndicate or group deemed to be a “person” under Section 13(d)(3) of the Exchange Act, of beneficial ownership, directly or indirectly, through a purchase, merger or other acquisition transaction or series of purchases, mergers or other acquisition transactions of our stock entitling that person to exercise more than 50% of the total voting power of all our stock entitled to vote generally in the election of our directors (except that such person will be deemed to have beneficial ownership of all securities that such person has the right to acquire, whether such right is currently exercisable or is exercisable only upon the occurrence of a subsequent condition); and

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- following the closing of any transaction referred to in the bullet point above, neither we nor the acquiring or surviving entity has a class of common securities (or American Depositary Receipts representing such securities) listed on the New York Stock Exchange (“NYSE”), the NYSE MKT LLC (“NYSE MKT”) or the NASDAQ, or listed or quoted on an exchange or quotation system that is a successor to the NYSE, the NYSE MKT or NASDAQ.

Conversion Rights. Upon the occurrence of a Change of Control, each holder of Series A Preferred Stock will have the right (unless, prior to the Change of Control Conversion Date (as defined below), we have provided notice of our election to redeem the Series A Preferred Stock) to convert some or all of the Series A Preferred Stock held by such holder (the “Change of Control Conversion Right”) on the Change of Control Conversion Date into a number of shares of our common stock per share of Series A Preferred Stock to be converted equal to the lesser of:

- the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference plus the amount of any accrued and unpaid dividends to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a Series A Preferred Stock dividend payment and prior to the corresponding Series A Preferred Stock dividend payment date, in which case no additional amount for such accrued and unpaid dividend will be included in this sum) by (ii) the Common Stock Price (as defined below); and
- 25 shares of common stock per preferred share (i.e., the “Share Cap”), subject to certain adjustments;

subject, in each case, to provisions for the receipt of alternative consideration as described herein.

The Share Cap is subject to pro rata adjustments for any share splits (including those effected pursuant to a distribution of our common stock), subdivisions or combinations with respect to our common stock.

Upon such a conversion, the holders will be limited to a maximum number of shares of our common stock equal to the Share Cap multiplied by the number of shares of Series A Preferred Stock converted. If the Common Stock Price is less than \$1.00 (which is approximately 25% of the per-share closing sale price of our common stock reported on the NASDAQ on June 1, 2016), subject to adjustment, the holders will receive a maximum of 25.00 shares of our common stock per share of Series A Preferred Stock, which may result in the holders receiving shares of common stock with a value that is less than the liquidation preference of the Series A Preferred Stock.

If, prior to the Change of Control Conversion Date, we have provided a redemption notice, whether pursuant to our special optional redemption right in connection with a Change of Control or our optional redemption right, holders of Series A Preferred Stock will not have any right to convert the Series A Preferred Stock in connection with the Change of Control Conversion Right, and any shares of Series A Preferred Stock selected for redemption that have been tendered for conversion will be redeemed on the related date of redemption instead of converted on the Change of Control Conversion Date.

The “Change of Control Conversion Date” is the date the Series A Preferred Stock is to be converted, which will be a business day that is no fewer than 20 days nor more than 35 days after the date on which we provide the required notice of the occurrence of a Change of Control to the holders of Series A Preferred Stock.

The “Common Stock Price” will be (i) if the consideration to be received in the Change of Control by the holders of our common stock is solely cash, the amount of cash consideration per share of our common stock or (ii) if the consideration to be received in the Change of Control by holders of our common stock is other than solely cash (x) the average of the closing sale prices per share of our common stock (or, if no closing sale price is reported, the average of the closing bid and ask prices or, if more than one in either case, the average of the average closing bid and the average closing ask prices) for the ten consecutive trading days immediately preceding, but not including, the effective date of the Change of Control as reported on the principal U.S.

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securities exchange on which our common stock is then traded, or (y) the average of the last quoted bid prices for our common stock in the over-the-counter market as reported by Pink Sheets LLC or a similar organization for the ten consecutive trading days immediately preceding, but not including, the effective date of the Change of Control, if our common stock is not then listed for trading on a U.S. securities exchange.

Additional Series of Preferred Stock

Our board of directors may, without the approval of holders of our common stock, designate additional shares of the Series A Preferred Stock and authorize the issuance of such shares or designate additional series of authorized preferred stock and the rights, preferences, limitations and privileges of such additional series ranking junior to or on parity with the Series A Preferred Stock. These rights, preferences, limitations and privileges may include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of this series, any or all of which may be greater than the rights of our common stock. It is not possible to state the actual effect of the issuance of any shares of our preferred stock upon the rights of holders of our common stock until our board of directors determines the specific rights of the holders of our preferred stock. However, the effects of the issuance of any shares of our preferred stock upon the rights of holders of our common stock might include, among other things:

- restricting dividends on our common stock,
- diluting the voting power of our common stock,
- impairing the liquidation rights of our common stock, and
- delaying or preventing a change in control without further action by our stockholders.

Certain Provisions of Texas Law, Our Charter and Our Bylaws

Provisions of our charter and the Texas Business Organizations Code may tend to delay, defer or prevent a potential unsolicited offer or takeover attempt that is not approved by our board of directors but that our stockholders might consider to be in their best interest, including an attempt that might result in stockholders receiving a premium over the market price for their shares. Because our board of directors is authorized to issue preferred stock with preferences and rights as it determines, it may afford the holders of any series of preferred stock preferences, rights or voting powers superior to those of the holders of common stock. These provisions:

- encourage potential acquirers to deal directly with our board of directors,
- give our board of directors the time and leverage to evaluate the fairness of the proposal to all stockholders,
- enhance continuity and stability in the composition of our board of directors and in the policies formulated by our board of directors, and
- discourage certain tactics that may be used in proxy fights.

No Cumulative Voting. Our charter provides that holders of shares of our common stock are not entitled to cumulate their votes in the election of directors.

Requirements for Advance Notification of Stockholder Nomination and Proposals. Our bylaws establish advance notice procedures with respect to stockholder proposals and nomination of candidates for election as directors other than nominations made by or at the direction of our board of directors or a committee of our board of directors. Our bylaws prescribe specific information that the stockholder's notice must contain, including, among other things, information about: (a) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting; (b) the name and address, as they appear on the Corporation's books, of the shareholder proposing such business; (c) the number of shares of the Corporation which are beneficially owned by the shareholder; and (d) any material interest of the shareholder

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in such business. Generally, under our bylaws, to be timely notice must be received at our principal executive offices not less than 70 days nor more than 100 days prior to the meeting. Notwithstanding the specific provisions of our bylaws, stockholders may request inclusion of proposals in our proxy statement pursuant to Rule 14(a)-8 under the Exchange Act or inclusion of nominees in our proxy statement pursuant to other SEC proxy rules.

Removal of Directors. Our charter provides that, subject to the rights of holders of any series of our preferred stock with respect to the election of directors, our stockholders may remove a director, with or without cause, by the affirmative vote of a majority of the voting power of our common stock.

Indemnification of Directors and Officers

Under the Company's charter, the Company is required to indemnify its directors, officers, employees and agents and maintain liability insurance for those persons in accordance with the provisions of Chapter 8 of the Texas Business Organizations Code. Section 8.101 of the Texas Business Organizations Code provides that a corporation may indemnify a governing person, or delegate, who was, is or is threatened to be made a named defendant or respondent in a proceeding if it is determined that the person: (i) conducted himself in good faith; (ii) reasonably believed that (a) in the case of conduct in his official capacity that his conduct was in the corporation's best interest and (b) in all other cases, that his conduct was at least not opposed to the corporation's best interest; and (iii) in the case of any criminal proceeding, had no reasonable cause to believe his conduct was unlawful. However, if the person is found liable to the corporation, or if the person is found liable on the basis that he received an improper personal benefit, indemnification under Texas law is limited to the reimbursement of reasonable expenses actually incurred by the person in connection with the proceedings and does not include a judgment, a penalty, a fine, and an excise or similar tax, and no indemnification will be available if the person is found liable for willful or intentional misconduct, breach of the person's duty of loyalty, or an act or omission not committed in good faith that constitutes a breach of a duty owed by the person to the corporation. Under Texas law, indemnification by the corporation is mandatory if the person is wholly successful on the merits or otherwise, in the defense of the proceeding.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock and our Series A Preferred Stock is American Stock Transfer & Trust Company, LLC.

NASDAQ Listing

Our common stock is listed on the NASDAQ under the ticker symbol "MIND." Our Series A Preferred Stock is listed on the NASDAQ under the ticker symbol "MINDP."

DESCRIPTION OF DEBT SECURITIES

The “Debt Securities” will be either our senior debt securities (“Senior Debt Securities”) or our subordinated debt securities (“Subordinated Debt Securities”). The Senior Debt Securities and the Subordinated Debt Securities will be issued under separate indentures between us and a trustee to be determined (the “Trustee”). Senior Debt Securities will be issued under a “Senior Indenture” and Subordinated Debt Securities will be issued under a “Subordinated Indenture.” Together, the Senior Indenture and the Subordinated Indenture are called “Indentures.”

The Debt Securities may be issued from time to time in one or more series. The particular terms of each series that are offered by a prospectus supplement will be described in the prospectus supplement.

We have summarized selected provisions of the Indentures below. The summary is not complete. The form of each Indenture has been filed with the SEC as an exhibit to the registration statement of which this prospectus is a part, and you should read the Indentures for provisions that may be important to you.

General

The Indentures provide that Debt Securities in separate series may be issued thereunder from time to time without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the Debt Securities of any series. We will determine the terms and conditions of the Debt Securities, including the maturity, principal and interest, but those terms must be consistent with the Indenture. The Debt Securities will be our unsecured obligations. If the prospectus supplement so indicates, the Debt Securities will be convertible into our common stock.

The Subordinated Debt Securities will be subordinated in right of payment to the prior payment in full of all of our Senior Debt (as defined) as described in the prospectus supplement applicable to any Subordinated Debt Securities.

We conduct a substantial amount of our operations through subsidiaries and expect that we will continue to do so. The Debt Securities will not be guaranteed by any of our existing or future subsidiaries. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to pay any amounts due with respect to the Debt Securities or to make any funds available therefor, whether by dividends, loans or other payments. Our rights and the rights of our creditors, including holders of the Debt Securities, to participate in the assets of any subsidiary upon the latter’s liquidation or reorganization will be subject to the prior claims of the subsidiary’s creditors, except to the extent that we may ourselves be a creditor with recognized claims against such subsidiary.

The applicable prospectus supplement will set forth the price or prices at which the Debt Securities to be issued will be offered for sale and will describe the following terms of such Debt Securities:

- (1) the title of the Debt Securities;
- (2) whether the Debt Securities are Senior Debt Securities or Subordinated Debt Securities and, if Subordinated Debt Securities, the related subordination terms;
- (3) any limit on the aggregate principal amount of the Debt Securities;
- (4) each date on which the principal of the Debt Securities will be payable;
- (5) the interest rate that the Debt Securities will bear and the interest payment dates for the Debt Securities;
- (6) each place where payments on the Debt Securities will be payable;

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(7) any terms upon which the Debt Securities may be redeemed, in whole or in part, at our option;

(8) any sinking fund or other provisions that would obligate us to redeem or otherwise repurchase the Debt Securities;

(9) the portion of the principal amount, if less than all, of the Debt Securities that will be payable upon declaration of acceleration of the maturity of the Debt Securities;

(10) whether the Debt Securities are defeasible;

(11) any addition to or change in the events of default;

(12) whether the Debt Securities are convertible into our common stock and, if so, the terms and conditions upon which conversion will be effected, including the initial conversion price or conversion rate and any adjustments thereto and the conversion period;

(13) any addition to or change in the covenants in the Indenture applicable to the Debt Securities; and

(14) any other terms of the Debt Securities not inconsistent with the provisions of the Indenture.

Debt Securities, including any Debt Securities that provide for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the maturity thereof (“Original Issue Discount Securities”), may be sold at a substantial discount below their principal amount. Special United States federal income tax considerations applicable to Original Issue Discount Securities may be described in the applicable prospectus supplement. In addition, special United States federal income tax or other considerations applicable to any Debt Securities that are denominated in a currency or currency unit other than United States dollars may be described in the applicable prospectus supplement.

Global Securities

Some or all of the Debt Securities of any series may be represented, in whole or in part, by one or more global securities (each a “Global Security”) that will have an aggregate principal amount equal to that of the Debt Securities they represent. Each Global Security will be registered in the name of a depositary or its nominee identified in the applicable prospectus supplement, will be deposited with such depositary or nominee or its custodian and will bear a legend regarding the restrictions on exchanges and registration of transfer thereof referred to below, and any such other matters as may be provided for pursuant to the applicable Indenture.

Governing Law

The Indentures and the Debt Securities will be governed by, and construed in accordance with, the law of the State of New York.

The Trustee

We will enter into the Indentures with a Trustee that is qualified to act under the Trust Indenture Act of 1939, as amended, and with any other Trustees chosen by us and appointed in a supplemental indenture for a particular series of Debt Securities. We may maintain a banking relationship in the ordinary course of business with our Trustee and one or more of its affiliates.

DESCRIPTION OF DEPOSITARY SHARES

We may offer depositary shares (either separately or together with other securities) representing fractional interests in our preferred stock of any series. In connection with the issuance of any depositary shares, we will enter into a depositary agreement with a bank or trust company, as depositary, which will be named in the applicable prospectus supplement. Depositary shares will be evidenced by depositary receipts issued pursuant to the related depositary agreement. Immediately following our issuance of the preferred stock related to the depositary shares, we will deposit the preferred stock with the relevant preferred stock depositary and will cause the preferred stock depositary to issue, on our behalf, the related depositary receipts. Subject to the terms of the depositary agreement, each owner of a depositary receipt will be entitled, in proportion to the fraction of a share of preferred stock represented by the related depositary share, to all the rights, preferences and privileges of, and will be subject to all of the limitations and restrictions on, the preferred stock represented by the depositary receipt (including, if applicable, dividend, voting, conversion, exchange redemption and liquidation rights).

DESCRIPTION OF WARRANTS

General Description of Warrants

We may issue warrants for the purchase of debt securities, preferred stock or common stock. Warrants may be issued independently or together with other securities and may be attached to or separate from any such offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent, all as set forth in the prospectus supplement relating to the particular issue of warrants. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders of warrants or beneficial owners of warrants. The following summary of certain provisions of the warrants does not purport to be complete and is subject to, and is qualified in its entirety by reference to, all provisions of the warrant agreements. A copy of the warrant agreement will be filed with the SEC in connection with the offering of warrants.

Debt Warrants

The prospectus supplement relating to a particular issue of warrants to purchase debt securities will describe the terms of those warrants, including the following:

- the title of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of the warrants;
- the designation and terms of the debt securities that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the debt securities that the warrants are issued with and the number of warrants issued with each debt security;
- if applicable, the date from and after which the warrants and any debt securities issued with them will be separately transferable;
- the principal amount of debt securities that may be purchased upon exercise of a warrant and the price at which the debt securities may be purchased upon exercise;
- the dates on which the right to exercise the warrants will commence and expire;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- whether the warrants represented by the warrant certificates or the debt securities that may be issued upon exercise of the warrants will be issued in registered or bearer form;
- information relating to book-entry procedures, if any;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of material U.S. federal income tax considerations;
- anti-dilution provisions of the warrants, if any;
- redemption or call provisions, if any, applicable to the warrants;
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants; and
- any other information we think is important about the warrants.

Stock Warrants

The prospectus supplement relating to a particular issue of warrants to purchase common stock or preferred stock will describe the terms of the common stock warrants and preferred stock warrants, including the following:

- the title of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of the warrants;
- the designation and terms of the common stock or preferred stock that maybe purchased upon exercise of the warrants;
- if applicable, the designation and terms of the securities that the warrants are issued with and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;
- the number of shares of common stock or preferred stock that may be purchased upon exercise of a warrant and the price at which the shares may be purchased upon exercise;
- the dates on which the right to exercise the warrants commence and expire;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of material U.S. federal income tax considerations;
- anti-dilution provisions of the warrants, if any;
- redemption or call provisions, if any, applicable to the warrants;
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants; and
- any other information we think is important about the warrants.

Exercise of Warrants

Each warrant will entitle the holder of the warrant to purchase at the exercise price set forth in the applicable prospectus supplement the principal amount of debt securities or shares of preferred stock or common stock being offered. Holders may exercise warrants at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants are void. Holders may exercise warrants as set forth in the prospectus supplement relating to the warrants being offered.

Until you exercise your warrants to purchase our debt securities, preferred stock or common stock, you will not have any rights as a holder of our debt securities, preferred stock or common stock, as the case may be, by virtue of your ownership of warrants.

PLAN OF DISTRIBUTION

We may sell the securities pursuant to this prospectus and any accompanying prospectus supplement in and outside the United States (1) through underwriters or dealers; (2) directly to purchasers, including our affiliates and shareholders, or in a rights offering; (3) through agents; or (4) through a combination of any of these methods. The prospectus supplement will include the following information:

- the terms of the offering;
- the names of any underwriters, brokers, dealers or agents;
- the name or names of any managing underwriter or underwriters;
- the purchase price or public offering price of the securities;
- the net proceeds to us from the sale of the securities;
- any delayed delivery arrangements;
- any underwriting discounts, commissions and other items constituting underwriters' compensation;
- any discounts or concessions allowed or reallocated or paid to dealers;
- any commissions paid to agents; and
- any securities exchange or market on which the securities may be listed.

The distribution of the securities may be effected from time to time in one or more transactions at prevailing market prices by us directly or through a designated agent, including sales made directly or through the facilities of the NASDAQ or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale.

In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement. If so, the third parties may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third parties in such sale transactions will be underwriters and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment). We or one of our affiliates may loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or third party may transfer its short position to investors in our securities or in connection with a simultaneous offering of other securities offered by this prospectus or otherwise.

Sale Through Underwriters or Dealers

If we use underwriters in the sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may offer securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. Unless we inform you otherwise in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to conditions, and the underwriters will be obligated to purchase all the securities offered by a prospectus supplement if they purchase any of them. The underwriters may change from time to time any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers.

During and after an offering through underwriters, the underwriters may purchase and sell the securities in the open market. These transactions may include over-allotment and stabilizing transactions and purchases to

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cover syndicate short positions created in connection with the offering. The underwriters may also impose a penalty bid, whereby selling concessions allowed to syndicate members or other broker-dealers for the offered securities sold for their account may be reclaimed by the syndicate if such offered securities are repurchased by the syndicate in stabilizing or covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the offered securities, which may be higher than the price that might otherwise prevail in the open market. If commenced, these activities may be discontinued at any time.

If we use dealers in the sale of securities, we will sell the securities to them as principals. They may then resell those securities to the public at varying prices determined by the dealers at the time of resale. The dealers participating in any sale of the securities may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. We will include in the prospectus supplement the names of the dealers and the terms of the transaction.

Direct Sales and Sales Through Agents

We may sell the securities directly. In that event, no underwriters or agents would be involved. We may also sell the securities through agents we designate from time to time. In the prospectus supplement, we will name any agent involved in the offer or sale of the securities, and we will describe any commissions payable by us to the agent. Unless we inform you otherwise in the prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. We will describe the terms of any such sales in the prospectus supplement.

Delayed Delivery Arrangements

If we so indicate in the prospectus supplement, we may authorize agents, underwriters or dealers to solicit offers from certain types of institutions to purchase securities from us at the public offering price under delayed delivery contracts. These contracts would provide for payment and delivery on a specified date in the future. The contracts would be subject only to those conditions described in the prospectus supplement. The prospectus supplement will describe the commission payable for solicitation of those contracts.

Remarketing Arrangements

Offered securities also may be offered and sold, if so indicated in the applicable prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreements, if any, with us, and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters within the meaning of the Securities Act in connection with the securities remarketed.

General Information

Underwriters, dealers and agents that participate in the distribution of the offered securities may be underwriters as defined in the Securities Act, and any discounts or commissions received by them from us and any profit on the resale of the offered securities by them may be treated as underwriting discounts and commissions under the Securities Act. Any underwriters or agents will be identified and their compensation described in the applicable prospectus supplement.

We may have agreements with the underwriters, dealers and agents to indemnify them against certain civil liabilities, including liabilities under the Securities Act, or to contribute with respect to payments that the underwriters, dealers or agents may be required to make.

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Underwriters, dealers and agents may engage in transactions with, or perform services for us or our subsidiaries in the ordinary course of their businesses.

In connection with offerings of securities under the registration statement of which this prospectus forms a part and in compliance with applicable law, underwriters, brokers or dealers may engage in transactions that stabilize or maintain the market price of the securities at levels above those that might otherwise prevail in the open market. Specifically, underwriters, brokers or dealers may over-allot in connection with offerings, creating a short position in the securities for their own accounts. For the purpose of covering a syndicate short position or stabilizing the price of the securities, the underwriters, brokers or dealers may place bids for the securities or effect purchases of the securities in the open market. Finally, the underwriters may impose a penalty whereby selling concessions allowed to syndicate members or other brokers or dealers for distribution of the securities in offerings may be reclaimed by the syndicate if the syndicate repurchases previously distributed securities in transactions to cover short positions, in stabilization transactions or otherwise. These activities may stabilize, maintain or otherwise affect the market price of the securities, which may be higher than the price that might otherwise prevail in the open market, and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Our counsel, Vinson & Elkins L.L.P., Houston, Texas, will pass upon certain legal matters in connection with the offered securities. Any underwriters, dealers or agents will be advised about other issues relating to any offering by their own legal counsel.

EXPERTS

The consolidated financial statements and the related financial statement schedule of Mitcham Industries, Inc. as of January 31, 2016 and 2015 and for each of the years in the three-year period ended January 31, 2016 incorporated in this Prospectus by reference from the Mitcham Industries, Inc. Annual Report on Form 10-K for the year ended January 31, 2016 have been audited by Hein & Associates LLP, an independent registered public accounting firm, as stated in their reports thereon, incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such reports and upon the authority of such firm as experts in accounting and auditing.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated expenses in connection with the issuance and distribution of the securities covered by this registration statement, other than underwriting discounts and commissions. All of the expenses will be borne by us except as otherwise indicated.

SEC registration fee	\$5,035
Printing and engraving expenses	*
Fees and expenses of legal counsel	*
Accounting fees and expenses	*
Miscellaneous expenses	*
Total	<u>\$ *</u>

* These fees are calculated based on the number of issuances and amount of securities offered and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers.

Under the Company's articles of incorporation, the Company is required to indemnify its directors, officers, employees and agents and maintain liability insurance for those persons in accordance with the provisions of Chapter 8 of the Texas Business Organizations Code. Section 8.101 of the Texas Business Organizations Code provides that a corporation may indemnify a governing person, or delegate, who was, is or is threatened to be made a named defendant or respondent in a proceeding if it is determined that the person: (i) conducted himself in good faith; (ii) reasonably believed that (a) in the case of conduct in his official capacity that his conduct was in the corporation's best interest and (b) in all other cases, that his conduct was at least not opposed to the corporation's best interest; and (iii) in the case of any criminal proceeding, had no reasonable cause to believe his conduct was unlawful. However, if the person is found liable to the corporation, or if the person is found liable on the basis that he received an improper personal benefit, indemnification under Texas law is limited to the reimbursement of reasonable expenses actually incurred by the person in connection with the proceedings and does not include a judgment, a penalty, a fine, and an excise or similar tax, and no indemnification will be available if the person is found liable for willful or intentional misconduct, breach of the person's duty of loyalty, or an act or omission not committed in good faith that constitutes a breach of a duty owed by the person to the corporation. Under Texas law, indemnification by the corporation is mandatory if the person is wholly successful on the merits or otherwise, in the defense of the proceeding.

Item 16. Exhibits.

Reference is made to the Exhibit Index following the signature pages hereto, which Exhibit Index is hereby incorporated by reference into this item.

Item 17. Undertakings.

(a) 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 of 1933;

(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.

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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; and

(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 (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those 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, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

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(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) 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) The undersigned registrant hereby undertakes, to the extent that the securities are offered to existing security holders pursuant to warrants and any securities not taken by security holders are to be offered to the public, to supplement the prospectus, after the expiration of the subscription period, to set forth the results of the subscription offer, the transactions by the underwriters during the subscription period, the amount of unsubscribed securities to be purchased by the underwriters, and the terms of any subsequent reoffering thereof. If any public offering by the underwriters is to be made on terms differing from those set forth on the cover page of the prospectus, a post-effective amendment will be filed to set forth the terms of such offering.

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 of 1933 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 of 1933 and will be governed by the final adjudication of such issue.

(e) The undersigned registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

(f) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee under each indenture to act under subsection (a) of Section 310 of the Trust Indenture Act ("Act") in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

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-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Huntsville, State of Texas, on September 1, 2016.

MITCHAM INDUSTRIES, INC.

By: /s/ ROBERT P. CAPPS

Name: Robert P. Capps

Title: Co-Chief Executive Officer and Chief Financial 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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ROBERT P. CAPPS</u> Robert P. Capps	Director, Co-Chief Executive Officer and Chief Financial Officer (Co-Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	September 1, 2016
<u>*</u> Guy Malden	Co-Chief Executive Officer and Executive Vice President-Marine Systems (Co-Principal Executive Officer)	September 1, 2016
<u>*</u> Peter H. Blum	Director	September 1, 2016
<u>*</u> Randal Dean Lewis	Director	September 1, 2016
<u>*</u> Robert Albers	Director	September 1, 2016
<u>*</u> Thomas Glanville	Director	September 1, 2016
<u>*</u> Marcus Rowland	Director	September 1, 2016

*By: /s/ ROBERT P. CAPPS
Robert P. Capps (attorney-in-fact)

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement
4.1*	Form of Certificate of Designations for Preferred Stock
4.2	Form of Indenture for Senior Debt Securities (incorporated herein by reference to Exhibit 4.1 to Mitcham Industries, Inc.'s Registration Statement on Form S-3, filed with the SEC on March 18, 2011 (Registration No. 333-172935))
4.3	Form of Indenture for Subordinated Debt Securities (incorporated herein by reference to Exhibit 4.2 to Mitcham Industries, Inc.'s Registration Statement on Form S-3, filed with the SEC on March 18, 2011 (Registration No. 333-172935))
4.4*	Form of Depositary Agreement
4.5*	Form of Warrant Agreement
5.1**	Opinion of Vinson & Elkins L.L.P. as to the legality of the securities being registered.
23.1**	Consent of Hein & Associates LLP
23.2**	Consent of Vinson & Elkins L.L.P. (contained in Exhibit 5.1)
24.1†	Powers of Attorney (contained on signature pages)
25.1***	Statement of Eligibility and Qualification of the Trustee under the Senior Indenture under the Trust Indenture Act of 1939, as amended, on Form T-1
25.2***	Statement of Eligibility and Qualification of the Trustee under the Subordinated Indenture under the Trust Indenture Act of 1939, as amended, on Form T-1

† Previously filed

* To be filed by a post-effective amendment to this registration statement or as an exhibit to a report pursuant to Section 13(a) or 15(d) of the Exchange Act

** Filed herewith

*** To be filed separately in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939, if applicable

September 1, 2016

Mitcham Industries, Inc.
8141 SH 75 South, P.O. Box 1175
Huntsville, Texas 77342

Re: Registration Statement on Form S-3 (the “**Registration Statement**”)

Ladies and Gentlemen:

We have acted as counsel for Mitcham Industries, Inc., a Texas corporation (the “**Company**”), with respect to certain legal matters in connection with the preparation and filing of a registration statement on Form S-3 to which this opinion is an exhibit (the “**Registration Statement**”) with the Securities and Exchange Commission (the “**Commission**”) relating to the offer and sale by the Company from time to time of:

(1) debt securities, which may be senior or subordinated, in one or more series, consisting of notes, debentures or other evidences of indebtedness (the “**Debt Securities**”);

(2) shares of the Company’s common stock, par value \$0.01 per share (the “**Common Stock**”);

(3) shares of the Company’s preferred stock, par value \$1.00 per share, (the “**Preferred Stock**”),

(4) depositary shares evidenced by depositary receipts (the “**Depositary Shares**”); and

(5) warrants for the purchase of Common Stock (the “**Warrants**”);

all of which may be issued and sold from time to time pursuant to Rule 415 under the Securities Act of 1933, as amended (the “**Securities Act**”) at an aggregate initial offering price not to exceed \$50,000,000.

The Debt Securities, Common Stock, Preferred Stock, Depositary Shares and Warrants are collectively referred to herein as the “**Securities**.” We have also participated in the preparation of the Prospectus (the “**Prospectus**”) contained in the Registration Statement. The Securities will be offered in amounts, at prices and on terms to be determined in light of market conditions at the time of sale and to be set forth in supplements (each a “**Prospectus Supplement**”) to the Prospectus contained in the Registration Statement.

Vinson & Elkins LLP Attorneys at Law
Austin Beijing Dallas Dubai Hong Kong Houston London Moscow New York
Palo Alto Richmond Riyadh San Francisco Taipei Tokyo Washington

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We have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Amended and Restated Articles of Incorporation and the Third Amended and Restated Bylaws of the Company, (ii) the Registration Statement, (iii) the form of Senior Indenture (the “**Senior Indenture**”), (iv) the form of Subordinated Indenture (the “**Subordinated Indenture**” and, together with the Senior Indenture, the “**Indentures**”), (v) resolutions of the Company’s board of directors (the “**Board**”) and (vi) such other certificates, statutes and other instruments and documents as we considered appropriate for purposes of the opinions hereafter expressed. In addition, we have reviewed certain certificates of officers of the Company and of public officials, we have relied on such certificates with respect to certain factual matters that we have not independently established and we reviewed such questions of law as we considered appropriate.

In connection with rendering the opinions set forth below, we have assumed that:

(i) all information contained in all documents reviewed by us is true and correct;

(ii) all signatures on all documents examined by us are genuine;

(iii) all documents submitted to us as originals are authentic and all documents submitted to us as copies conform to the originals of those documents;

(iv) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective;

(v) one or more Prospectus Supplements will have been prepared and filed with the Commission describing the Securities offered thereby and will comply with applicable laws;

(vi) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner specified in the Registration Statement and the applicable Prospectus Supplement;

(vii) the Indentures relating to the Debt Securities, a depositary agreement relating to the Depositary Shares (the “**Depositary Agreement**”) and a warrant agreement relating to the Warrants (the “**Warrant Agreement**”) will be duly authorized, executed and delivered by the parties thereto;

(viii) the form and terms of any Securities, the issuance, sale and delivery thereof by the Company and the incurrence and performance of its obligations thereunder or in respect thereof in accordance with the terms thereof, will be in full compliance with, and will not violate, the formation documents and agreements of the Company or any applicable law, rule, regulation, order, judgment, decree, award or agreement binding upon it, or to which the

issuance, sale and delivery of such Securities, or the incurrence or performance of such obligations, may be subject, or violate any applicable public policy, or be subject to any defense in law or equity;

(ix) each person signing the documents we examined has the legal capacity and authority to do so;

(x) at the time of any offering or sale of any shares of Common Stock and/or Preferred Stock, that the Company shall have such number of shares of Common Stock and/or Preferred Stock, as set forth in such offering or sale, authorized or created and available for issuance;

(xi) a definitive purchase, underwriting or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; and

(xii) any Securities issuable upon conversion, exchange or exercise of any Debt Securities or Preferred Stock being offered will have been duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange or exercise.

Based on the foregoing, and subject to the assumptions, qualifications, limitations, and exceptions set forth herein, we are of the opinion that:

1. When (a) the applicable Indenture relating either to senior Debt Securities or subordinated Debt Securities have been duly qualified under the Trust Indenture Act of 1939, as amended, (b) the Board (or a committee thereof) has taken all necessary corporate or comparable action to approve the issuance and terms of any such Debt Securities, (c) the terms of such Debt Securities and of their issuance and sale have been duly established in conformity with the applicable Indenture so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, and so as to comply with any requirements or restrictions imposed by any court or governmental body having jurisdiction over the Company, (d) any shares of Common Stock issuable upon the conversion of such Debt Securities, if applicable, have been duly and validly authorized for issuance and (e) such Debt Securities have been duly executed and authenticated in accordance with the applicable

Indenture and issued and sold as contemplated in the Registration Statement and upon payment of the consideration for such Debt Securities as provided for in the applicable definitive purchase, underwriting or similar agreement, such Debt Securities will be legally issued and such Debt Securities will constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms, except as such enforcement is subject to any applicable bankruptcy, insolvency (including, without limitation, all laws relating to fraudulent transfers), reorganization, moratorium and similar laws relating to or affecting creditors' rights generally and to general equitable principles (regardless of whether enforcement is sought in a proceeding in equity or at law);

2. With respect to shares of the Common Stock offered by the Company, when (i) the Board has taken all necessary corporate action to approve the issuance and terms of the offering thereof and related matters; and (ii) certificates representing the shares of Common Stock have been duly executed, countersigned, registered and delivered either (a) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, then upon payment of the consideration therefor (not less than the par value of the Common Stock) provided for therein or (ii) upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for the conversion, exchange or exercise as approved by the Board, for the consideration approved by the Board (not less than the par value of the Common Stock), such shares of Common Stock will be legally issued, fully paid and non-assessable;

3. With respect to shares of any series of Preferred Stock offered by the Company, when (i) the Board has taken all necessary corporate action to approve the issuance and terms of the shares of the series, the terms of the offering thereof and related matters, including the adoption of a resolution establishing and designating the series and fixing and determining the preferences, limitations and relative rights thereof and the filing of a certificate of designations, preferences and rights with respect to the series with the Secretary of State of the State of Texas (the "**Certificate of Designation**"); and (ii) certificates representing the shares of the series of Preferred Stock have been duly executed, countersigned, registered and delivered either (a) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, then upon payment of the consideration therefor (not less than the par value of the Preferred Stock) provided for therein or (ii) upon conversion, exchange or exercise of any other Security in accordance with the terms of such Security or the instrument governing such Security providing for the conversion, exchange or exercise as approved by the Board, for the consideration approved by the Board (not less than the par value of the Preferred Stock) the shares of the series of Preferred Stock will be legally issued, fully paid and non-assessable; and

4. With respect to the Depositary Shares offered by the Company, when (i) the Board has taken all necessary corporate action to approve the issuance and terms of the Depositary Shares, the terms of the offering thereof and related matters, including the adoption of a Certificate of Designation relating to the Preferred Stock underlying the Depositary Shares and the filing of the Certificate of Designation with the Secretary of State of the State of Texas, (ii) the Depositary Agreement and the related depositary receipts have been duly authorized and validly executed and delivered by the Company and the depositary appointed by the Company, (iii) the shares of Preferred Stock underlying the Depositary Shares have been deposited with the depositary under the applicable Depositary Agreement and (d) the depositary receipts representing the Depositary Shares have been duly executed, countersigned, registered and delivered in accordance with the appropriate Depositary Agreement approved by the Company, upon payment of the consideration thereof or provided for in the applicable definitive purchase, underwriting or similar agreement, the Depositary Shares will be legally issued;

5. With respect to shares of the Warrants offered by the Company, when (i) the Board has taken all necessary corporate action to approve the issuance and terms of the warrants, the terms of the offering thereof and related matters; and (ii) the terms of any Warrants and of their issuance and sale have been duly established in conformity with the applicable Warrant Agreement so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any requirements or restrictions imposed by any court or governmental body having jurisdiction over the Company, and the Warrants have been duly executed and authenticated in accordance with the applicable Warrant Agreement and issued and sold as contemplated in the Registration Statement, the Warrants will constitute valid and legally binding obligations of the Company, subject to bankruptcy, insolvency (including, without limitation, all laws relating to fraudulent transfers), reorganization, moratorium and similar laws relating to or affecting creditors' rights generally and to general equitable principles (regardless of whether enforcement is sought in a proceeding in equity or at law).

We express no opinions concerning (a) the validity or enforceability of any provisions contained in the Indentures that purport to waive or not give effect to rights to notices, defenses, subrogation or other rights or benefits that cannot be effectively waived under applicable law or (b) the enforceability of indemnification provisions to the extent they purport to relate to liabilities resulting from or based upon negligence or any violation of federal or state securities or blue sky laws.

The foregoing opinions are limited to the federal laws of the United States, the laws of the State of Texas and the laws of the State of New York. For purposes of this opinion, we assume that the Securities will be issued in compliance with all applicable state securities or blue sky laws. We express no opinion as to the effect of the laws of any other jurisdiction, domestic or foreign.

Vinson & Elkins

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the use of our name in the Prospectus forming a part of the Registration Statement under the caption "Legal Matters." In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act.

Very truly yours,

/s/ Vinson & Elkins L.L.P.

Vinson & Elkins L.L.P.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Amendment No. 1 to the Registration Statement (No. 333-212949) on Form S-3 of Mitcham Industries, Inc. of our reports dated April 7, 2016, relating to the consolidated financial statements and the financial statement schedule of Mitcham Industries, Inc., appearing in the Annual Report on Form 10-K of Mitcham Industries, Inc. for the year ended January 31, 2016.

We also consent to the reference to our firm under the heading “Experts” in such Prospectus, which is part of the Registration Statement.

/s/ Hein & Associates LLP
Hein & Associates LLP

Houston, Texas
September 1, 2016