

ROCKWELL MEDICAL TECHNOLOGIES INC

Form S-3

July 24, 2009

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933
ROCKWELL MEDICAL TECHNOLOGIES, INC.
(Exact Name of Registrant as Specified in Its Charter)**

Michigan **38-3317208**
(State or Other Jurisdiction of Incorporation or (I.R.S. Employer Identification Number)
Organization)

**30142 Wixom Road
Wixom, Michigan 48393
(248) 960-9009**
(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal
Executive Offices)

**Robert L. Chioini
President and Chief Executive Officer
30142 Wixom Road
Wixom, Michigan 48393
(248) 960-9009**
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copy to:

**Mark A. Metz
Dykema Gossett PLLC
400 Renaissance Center
Detroit, Michigan 48243
Telephone: (313) 568-6800**

Approximate date of commencement of proposed sale to the public: From time to time after the effective date hereof.
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. (Check one):

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered	Proposed maximum offering price per unit (1)	Proposed maximum aggregate offering price	Amount of registration fee
	(1)(2)(3)	(1)		
Common Stock				
Warrants				
Total			\$ 60,000,000	\$ 3,348

(1) Not specified as to each class of securities to be registered pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended (the Securities Act).

(2) The Registrant is hereby registering an indeterminate amount and number of each applicable identified class of the identified securities up to a proposed maximum aggregate offering price of

\$60,000,000,
which may be
offered from
time to time at
indeterminate
prices, including
securities that
may be
purchased by
underwriters.
The Registrant
has estimated
that the
proposed
maximum
aggregate
offering price
solely for the
purpose of
calculating the
registration fee
pursuant to Rule
457(o) under the
Securities Act.
Securities
registered
hereunder may
be sold
separately,
together or as
units with other
securities
registered
hereunder.

- (3) The Registrant
is hereby
registering an
indeterminate
amount and
number of each
identified class
of the identified
securities as
may be issued
upon
conversion,
exchange,
exercise or
settlement of
any other

securities that
provide for such
conversion,
exchange,
exercise or
settlement.

- (4) Calculated
pursuant to Rule
457(o) under the
Securities Act.

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.

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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 the securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated July 24, 2009

PROSPECTUS

**COMMON STOCK
WARRANTS**

We may offer to sell from time to time, in one or more offerings, in amounts, at prices and on terms determined at the time of any such offering, shares of our common stock and warrants to purchase our common stock.

We may offer and sell these securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis.

This prospectus describes some of the general terms that may apply to these securities. The specific terms of any securities to be offered will be described in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you make your investment decision.

Our common stock is listed on the Nasdaq Global Market and traded under the symbol RMTI. On July 23, 2009, the closing sale price of our common stock on Nasdaq was \$8.75 per share. You are urged to obtain current market quotations for the common stock. Each prospectus supplement will indicate if the securities offered thereby will be listed on any securities exchange.

Investing in our securities involves a high degree of risk. See the section entitled Risk Factors, on page 5 of this prospectus and in the documents we file with the SEC that are incorporated in this prospectus by reference for certain risks and uncertainties you should consider.

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.

The date of this prospectus is July 24, 2009.

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Rockwell Medical Technologies, Inc.'s principal executive offices are located at 30142 Wixom Road, Wixom, Michigan 48393, our telephone number at that address is (248) 960-9009 and our Internet address is www.rockwellmed.com. The information on our Internet website is not incorporated by reference in this prospectus, and you should not consider it to be a part of this document. Our website address is included as an inactive textual reference only. Unless the context otherwise requires, references in this prospectus to Rockwell, we, us, and our refer to Rockwell Medical Technologies, Inc. and its subsidiaries on a consolidated basis.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus together or separately, in one or more offerings, up to a maximum aggregate offering price of \$60,000,000. This prospectus provides you with a general description of those securities which is not meant to be a complete description of each security. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the specific amounts, prices and terms of the securities offered. The prospectus supplement may also add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading **Where You Can Find More Information**.

You should not assume that the information contained in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front cover of such documents. Neither the delivery of this prospectus or any applicable prospectus supplement nor any distribution of securities pursuant to such documents shall, under any circumstances, create any implication that there has been no change in the information set forth in this prospectus or any applicable prospectus supplement or in our affairs since the date of this prospectus or any applicable prospectus supplement.

WHERE YOU CAN GET MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You can inspect and copy such reports at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. You can inspect or copy all or any part of these materials, at prescribed rates, at the SEC's public reference facilities. The SEC also maintains an Internet site at www.sec.gov that contains reports, proxy and information statements and other

information regarding issuers that file electronically with the SEC, including Rockwell.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows Rockwell to incorporate by reference the information it files with the SEC. This permits us to disclose important information to you by referencing these filed documents. Any information referenced in this way is considered part of this prospectus, and any information filed with the SEC subsequent to this prospectus will automatically update and supersede this information. Rockwell incorporates by reference the documents listed below which have been filed with the SEC:

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Annual Report on Form 10-K for the fiscal year ended December 31, 2008.

Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009.

Current Reports on Form 8-K filed April 6, 2009 and June 1, 2009.

The description of our common shares included in our prospectus, dated July 24, 1997, included in our registration statement on Form SB-2 filed with the SEC on July 24, 1997, under the caption "Description of Securities" on pages 34 through 38 of the prospectus and incorporated by reference into our registration statement on Form 8-A filed with the SEC on January 23, 1998, including any amendment or reports filed for the purpose of updating such description.

In addition, all documents filed by us under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 after the date of this prospectus but before the termination of this offering are deemed to be incorporated by reference into this prospectus and will constitute a part of this prospectus from the date of filing of those documents.

Any statement contained in a document incorporated by reference in this prospectus will be considered to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any subsequently filed document that is incorporated by reference modifies or supersedes such statement. Any statement that is modified or superseded will not, except as so modified or superseded, constitute a part of this prospectus.

Rockwell will provide without charge, upon written or oral request, a copy of any or all of the documents which are incorporated by reference in this prospectus, including any exhibits which are specifically incorporated by reference into such documents. Requests should be directed to Thomas E. Klema, Secretary, at our principal executive offices, located at 30142 Wixom Road, Wixom, Michigan 48393 (telephone number: (248) 960-9009).

You should rely only on the information contained or incorporated by reference in this prospectus, in any accompanying prospectus supplement or in any free writing prospectus filed by us with the SEC and any information about the terms of securities offered conveyed to you by us, our underwriters or agents. We have not authorized anyone else to provide you with additional or different information. These securities are only being offered in jurisdictions where the offer is permitted. You should not assume that the information contained in this prospectus, any accompanying prospectus supplement or any free writing prospectus is accurate as of any date other than their respective dates.

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OUR COMPANY

We manufacture hemodialysis concentrate solutions and dialysis kits, and we sell, distribute and deliver these and other ancillary hemodialysis products primarily to hemodialysis providers in the United States as well as internationally primarily in Latin America, Asia and Europe. Hemodialysis duplicates kidney function in patients with failing kidneys also known as End Stage Renal Disease (ESRD). ESRD is an advanced stage of chronic kidney disease characterized by the irreversible loss of kidney function. Without properly functioning kidneys, a patient's body cannot get rid of excess water and toxic waste products. Without frequent and ongoing dialysis treatments, these patients would not survive.

Our dialysis solutions (also known as dialysate) are used to maintain life, removing toxins and replacing nutrients in the dialysis patient's bloodstream. We have licensed and are currently developing proprietary renal drug therapies for both iron-delivery and carnitine/vitamin-delivery, utilizing dialysate as the delivery mechanism. Iron supplementation is routinely administered to more than 90% of patients receiving treatment for anemia. We have licensed a drug therapy for the delivery of iron supplementation for anemic dialysis patients which we refer to as dialysate iron and more specifically as soluble ferric pyrophosphate (SFP). To realize a commercial benefit from this therapy, and pursuant to the licensing agreement, we must complete clinical trials and obtain U.S. Food and Drug Administration (FDA) approval to market iron supplemented dialysate. We also plan to seek foreign market approval for this product. We believe this product will substantially improve iron maintenance therapy and, if approved, will compete for the global market for iron maintenance therapy. Based on reports from manufacturers of intravenous (IV) iron products, the market size in the United States for IV iron therapy for all indications is approximately \$500 million per year. We estimate the global market for IV iron therapy is in excess of \$850 million per year. We cannot, however, give any assurance that this product will be approved by the FDA, or, if approved, that it will be successfully marketed. We have also entered into a licensing agreement related to a patent for the delivery of carnitine and vitamins via our hemodialysis solutions. To realize a commercial benefit of this product we must obtain regulatory approval of this product. We intend to add other renal therapies to our pipeline in the future.

Hemodialysis patients generally receive their treatments at independent hemodialysis clinics or at hospitals. A hemodialysis provider such as a hospital or a free standing clinic uses a dialysis station to treat patients. A dialysis station contains a dialysis machine that takes concentrate solutions primarily consisting of nutrients and minerals, such as our liquid concentrate solutions or our concentrate powders mixed with purified water, and accurately dilutes those solutions with purified water. The resulting solution known as dialysate, is then pumped through a device known as a dialyzer (artificial kidney), while at the same time the patient's blood is pumped through a semi-permeable membrane within the dialyzer. Excess water and chemicals from the patient's blood pass through the membrane and are carried away in the dialysate while certain nutrients and minerals in the dialysate penetrate the membrane and enter the patient's blood to maintain proper blood chemistry. Dialysate generally contains dextrose, sodium chloride, calcium, potassium, magnesium, sodium bicarbonate and acetic acid. The patient's physician chooses the formula required for each patient based on each particular patient's needs, although most patients receive one of eight common formulations.

In addition to using concentrate solutions and chemical powders (which must be replaced for each use for each patient), a dialysis provider also requires various other ancillary products such as blood tubing, fistula needles, specialized custom kits, dressings, cleaning agents, filtration salts and other supplies, many of which we sell. Hemodialysis treatments are generally performed in independent clinics or hospitals with the majority of dialysis services performed by regional and national for profit dialysis chains. We estimate that there are approximately 5,000 Medicare-certified treatment clinics in the United States. The two largest national for-profit dialysis chains service approximately 63% of the domestic hemodialysis market. According to industry statistics published by the U.S. Renal Data Systems, 345,000 patients in the United States were receiving dialysis treatments at the end of 2006. The domestic dialysis industry has experienced steady patient population growth over the last two decades. In the last five years, the patient growth rate has averaged 4% per year. Population segments with the highest incidence of ESRD are also among the fastest growing within the U.S. population including the elderly, Hispanic and African-American population segments. Recent U.S. demographic projections indicate that the incidence of ESRD is expected to increase in the years ahead and is expected to exceed current incidence levels.

ESRD incidence rates vary by country with some higher and some lower than the United States. Based on industry reports, the global ESRD population is estimated to be over 2 million and to be growing at a rate of approximately 6% annually. The three major dialysis markets are the United States, the European Union and Japan, which together represent between approximately 55-60% of the total global treatments based on industry estimates.

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Our strategy is to develop our dialysis concentrate and supply business and to develop drugs, nutrients and vitamins to be delivered by our dialysis concentrate products. Our long term objectives are to increase our market share, expand our product line, expand our geographical selling territory and improve our profitability by implementing the following strategies:

increasing our revenues through new innovative products, such as our Dri-Sate® Dry Acid Concentrate Mixing System and SteriLyte® Liquid Bicarbonate Concentrate,

gaining FDA approval to market innovative products such as SFP,

acting as a single source supplier to our customers for the concentrates, chemicals and supplies necessary to support a hemodialysis provider's operation,

offering our customers a higher level of delivery and customer service by using our own delivery vehicles and drivers, and

expanding our market share in target regions, including regions where our proximity to customers will provide us with a competitive cost advantage and allow us to provide superior customer service levels.

RISK FACTORS

Before making an investment decision, you should carefully consider the risks described under Risk Factors in the applicable prospectus supplement and in our most recent Annual Report on Form 10-K, and in our updates to those Risk Factors in our Quarterly Reports on Form 10-Q, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. In addition to those risk factors, there may be additional risks and uncertainties of which management is not aware or that management deems immaterial. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

We make forward-looking statements in this prospectus. Our forward-looking statements are subject to risks and uncertainties and include information about our expectations and possible or assumed future results of our operations. When we use words such as may, might, will, should, believe, expect, anticipate, estimate, continue, projected, intend or similar expressions, or make statements regarding our intent, belief or current expectations, we are making forward-looking statements. Our forward looking statements also include, without limitation, statements about our competitors, statements regarding the timing and costs of obtaining FDA approval of our new SFP product and statements regarding our anticipated future financial condition, operating results, cash flows and business plans. We claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 for all of our forward-looking statements. While we believe that our forward looking statements are reasonable, you should not place undue reliance on any such forward-looking statements, which are based on information available to us on the date of this prospectus. Because these forward-looking statements are based on estimates and assumptions that are subject to significant business, economic and competitive uncertainties, many of which are beyond our control or are subject to change, actual results could be materially different. Factors that might cause such a difference include, without limitation, the risks and uncertainties discussed in this prospectus, including under Risk Factors, and from time to time in our reports filed with the Securities and Exchange Commission. Other factors not currently anticipated may also materially and adversely affect our results of operations, cash flows and financial position. There can be no assurance that future results will meet expectations. We do not undertake, and expressly disclaim, any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as required by law.

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USE OF PROCEEDS

Except as may be otherwise set forth in the applicable prospectus supplement accompanying this prospectus, the net proceeds from the sale of the securities will be used for general corporate purposes.

DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock is 40,000,000 shares of common stock and 3,416,664 shares of preferred stock (including 1,416,664 shares of Series A Preferred Shares which were previously issued and cancelled and which are not available for issuance). At June 30, 2009, 14,208,743 shares of common stock and no shares of preferred stock were outstanding. This description is subject to, and qualified in its entirety by, the provisions of our amended and restated articles of incorporation and bylaws, as well as the provisions of any applicable laws. A copy of our amended and restated articles of incorporation, was filed with the SEC as Exhibit 3.1 to our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2008. A copy of our amended and restated bylaws was filed with the SEC as Exhibit 3.2 to our Current Report on Form 8-K filed on November 25, 2008.

We may issue shares of our common stock, either separately or together with other warrants offered pursuant to this prospectus. Holders of our common stock are entitled to one vote for each share held of record on all matters on which shareholders are generally entitled to vote. The vote of the holders of a majority of the stock represented at a meeting at which a quorum is present is generally required to take shareholder action, unless a greater vote is required by law. Directors are elected by a plurality of the votes cast at any election and there is no cumulative voting of shares. Holders of our common stock are entitled to receive dividends when, as and if declared by our board of directors out of funds legally available for the payment of dividends. Upon the liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share pro rata in any assets available for distribution to shareholders after payment of all obligations of the Company and after provision has been made with respect to each class of stock, if any, having preference over the common stock. Holders of common stock do not have cumulative voting rights or preemptive, subscription or conversion rights and shares of common stock are not redeemable. The shares of common stock presently outstanding are duly authorized, validly issued, fully paid and non-assessable. There will be a prospectus supplement relating to any offering of common stock offered by this prospectus. The directors of the Company serve staggered three-year terms. Directors may not be removed without cause. The Articles of Incorporation also set the minimum and maximum number of directors constituting the entire Board at three and fifteen, respectively, with the exact number to be determined by the board from time to time.

Our amended and restated articles of incorporation and bylaws contain provisions that could have the effect of delaying, deterring or preventing a merger, tender offer or other takeover attempt. Our amended and restated articles of incorporation authorize the Board to issue up to 40 million shares of common stock (less shares already outstanding or reserved for issuance) and up to two million shares of preferred stock without shareholder approval. In addition, the amended and restated articles of incorporation provide that shareholder action without a meeting requires the unanimous consent of the shareholders. Our bylaws permit incumbent directors to fill any vacancies on the board of directors, however occurring, whether by an increase in the number of directors, death, resignation, retirement, disqualification, removal from office or otherwise, unless filled by proper action of the shareholders. Furthermore, our bylaws require shareholders to give advance notice of proposals to be presented at meetings of shareholders, including director nominations.

These provisions may delay shareholder actions with respect to business combinations and the election of new members to our board of directors. As such, the provisions could discourage open market purchases of our common stock because a shareholder who desires to participate in a business combination or elect a new director may consider them disadvantageous.

Subject to certain exceptions, Chapter 7A of the Michigan Business Corporation Act prohibits a corporation from engaging in any business combination with an interested shareholder (defined as a 10% shareholder) unless approved by (1) 90% of the votes of each class of stock entitled to vote and (2) two-thirds of the votes of each class of stock entitled to be cast by the shareholders other than the interested shareholder. We are currently not subject to Chapter 7A but may opt in at any time by resolution of our board of directors.

Listing

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Our common stock is listed and traded on the NASDAQ Global market under the symbol RMTI.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock. Warrants may be issued independently or together with shares of common stock and may be attached to or separate from the common stock. The warrants will be issued under warrant agreements to be entered into between us and the purchasers or a warrant agent as detailed in the prospectus supplement relating to warrants being offered.

The applicable prospectus supplement will describe the following terms, where applicable, of the warrants in respect of which this prospectus is being delivered:

the title of the warrants;

the aggregate number of the warrants;

the price or prices at which the warrants will be issued;

the currencies in which the exercise price or prices of the warrants may be payable if other than U.S. dollars;

the number of shares of common stock purchasable upon exercise of the warrants;

whether the warrants are issued with shares of common stock and, if so, the number of the warrants issued with each share;

if applicable, the date on and after which the warrants and the common stock purchasable upon exercise of the warrants will be separately transferable;

the price or prices at which the offered securities purchasable upon exercise of the warrants may be purchased and provisions for changes to or adjustments in the exercise price of the warrants;

the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;

the minimum or maximum amount of the warrants which may be exercised at any one time;

the identity of the warrant agent, if any;

information with respect to book-entry procedures, if any;

a discussion of any material federal income tax considerations; and

any other material terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

No warrant agreement will be qualified as an indenture, and no warrant agent will be required to qualify as a trustee, under the Trust Indenture Act of 1939. Therefore, holders of warrants issued under a warrant agreement will not have the protection of the Trust Indenture Act with respect to their warrants.

PLAN OF DISTRIBUTION

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We may sell the securities being offered hereby in one or more of the following ways from time to time:
through agents;

through underwriters or dealers, or underwriting syndicates represented by managing underwriters;

in short or long transactions;

in at the market offerings, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market marker or into an existing trading market, on an exchange or otherwise;

directly to investors; or

through a combination of any of these methods of sale.

A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including without limitation, warrants, subscriptions, exchangeable securities, forward delivery contracts and the writing of options.

In addition, the manner in which we may sell some or all of the securities covered by this prospectus includes, without limitation, through:

a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;

purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account;

ordinary brokerage transactions and transactions in which a broker solicits purchasers;

competitively bid transactions; or

privately negotiated transactions.

We may also enter into hedging transactions. For example, we may:

enter into transactions with a broker-dealer or affiliate thereof in connection with which such broker-dealer or affiliate will engage in short sales of the common stock pursuant to this prospectus, in which case such broker-dealer or affiliate may use shares of common stock received from us to close out its short positions;

sell securities short and redeliver such shares to close out our short positions;

enter into option or other types of transactions that require us to deliver common stock to a broker-dealer or an affiliate thereof, who will then resell or transfer the common stock under this prospectus; or

loan or pledge the common stock to a broker-dealer or an affiliate thereof, who may sell the loaned shares or, in an event of default in the case of a pledge, sell the pledged shares pursuant to this prospectus.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

the name or names of any agents, underwriters or dealers and the amounts of securities underwritten or purchased by them;

the purchase price of the securities being offered and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional securities from us;

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any delayed delivery arrangements;

any agency fees or underwriting discounts or commissions and other items constituting agents' or underwriters' compensation;

the public offering or purchase price;

any discounts or concessions allowed or reallocated or paid to dealers; and

the securities exchanges on which such securities may be listed, if any.

We may enter into derivative transactions with third parties or sell securities not covered by this prospectus to third parties in privately negotiated transactions from time to time. If the applicable prospectus supplement indicates, in connection with those derivative transactions, such third parties (or affiliates of such third parties) may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, such third parties (or affiliates of such 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 derivative transactions to close out any related open borrowings of stock. The third parties (or affiliates of such third parties) in such sale transactions will be underwriters and will be identified in an applicable prospectus supplement (or a post-effective amendment).

We may loan or pledge securities to a financial institution or other third party that in turn may sell the securities using this prospectus and an applicable prospectus supplement. Such financial institution or third party may transfer its economic short position to investors in our securities or in connection with a simultaneous offering of other securities offered by this prospectus.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

at a fixed price or prices, which may be changed;

at a price or prices determined pursuant to competitive bidding;

at market prices prevailing at the time of sale;

at prices related to the prevailing market prices; or

at negotiated prices.

Any public offering price and any discounts, commissions, concessions or other items constituting compensation allowed or reallocated or paid to underwriters, dealers, agents or remarketing firms may be changed from time to time. Underwriters, dealers, agents and remarketing firms that participate in the distribution of the offered securities may be underwriters as defined in the Securities Act. Any discounts or commissions they receive from us and any profits they receive on the resale of the offered securities may be treated as underwriting discounts and commissions under the Securities Act. We will identify any underwriters, agents or dealers and describe their commissions, fees or discounts in the applicable prospectus supplement or pricing supplement, as the case may be.

Underwriters, Agents and Dealers

We may designate agents who agree to use their reasonable efforts to solicit purchases for the period of their appointment or to sell our securities for which they have been appointed an agent on a continuing basis.

If we use underwriters for a sale of our 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.

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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. The obligations of the underwriters to purchase our securities will be subject to the conditions set forth in the applicable underwriting agreement. The underwriters may change from time to time any public offering price and any discounts or concessions the underwriters allow or reallow or pay to dealers. We may use underwriters with whom we have a material relationship. We will describe in an applicable prospectus supplement the name of the underwriter and the nature of any such relationship.

If a dealer is utilized in the sale of securities in respect of which this prospectus is delivered, we will sell such securities to the dealer as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

We may designate agents to sell the offered securities. Unless otherwise specified in connection with any particular offering of securities, the agents will agree to use their best efforts to solicit purchases for the period of their appointment. We may also sell the offered securities to one or more remarketing firms, acting as principals for their own accounts or as agents for us. These firms will remarket the offered securities upon purchasing them in accordance with a redemption or repayment pursuant to the terms of the offered securities. A prospectus supplement or pricing supplement, as the case may be will identify any remarketing firm and will describe the terms of its agreement, if any, with us and its compensation.

Underwriters, dealers and agents that participate in the distribution of our securities may be underwriters as defined in the Securities Act, and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

Institutional Purchasers

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or pricing supplement, as the case may be will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

Indemnification; Other Relationships

We may have agreements with agents, underwriters, dealers and remarketing firms to indemnify them against certain civil liabilities, including liabilities under the Securities Act. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us or our subsidiaries or affiliates in the ordinary course of their business. This includes commercial banking and investment banking transactions.

Stabilization Activities

In connection with an offering through underwriters, an underwriter may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional securities from us in the offering, if any. If the underwriters have an over-allotment option to purchase additional securities from us, the underwriters may consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the over-allotment option. Naked short sales are any sales in excess of such option or where the underwriters do not have an over-allotment option. The underwriters must close out any naked short position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions

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allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. The imposition of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain.

Direct Sales

We may also sell securities directly to one or more purchasers without using or involving underwriters, dealers or agents. We may sell securities upon the exercise of rights that we may issue to our securityholders. We may also 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.

Trading Market and Listing of Securities

Unless otherwise specified in an applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is listed on the NASDAQ Global Market. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

LEGAL MATTERS

Unless otherwise indicated in an applicable prospectus supplement, the validity of the securities offered by this prospectus will be passed upon for us by Dykema Gossett PLLC, and for any underwriters or agents by counsel named in an applicable prospectus supplement.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2008, and the effectiveness of the Company's internal control over financial reporting as of December 31, 2008, have been audited by Plante & Moran, PLLC, independent auditors, as stated in their reports which are incorporated in this prospectus by reference, and have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

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PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 14. Other Expenses of Issuance and Distribution.**

The following table sets forth the expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the securities being registered hereby. All amounts, except the SEC registration fee, are estimates:

	Amount to be paid*
SEC Registration Fee	\$ 3,348
Accounting Fees and Expenses	5,000
Legal Fees and Expenses	100,000
Transfer Agent, Registrar and Trustee Fees	3,000
Miscellaneous expenses	125,000
Total	\$ 236,348

*

Since an indeterminate amount of securities is covered by this registration statement, the expenses in connection with the issuance and distribution of the securities are therefore not currently determinable. Other than the SEC Registration Fee, the amounts shown are estimates of expenses for a single offering of securities under the registration statement, but do not limit the amount of securities that may be offered.

Item 15. Indemnification of Directors and Officers.

The Michigan Business Corporation Act, as amended (the "MBCA"), authorizes a Michigan corporation under specified circumstances to indemnify its directors and officers (including reimbursement for expenses incurred). The provisions of the Company's Bylaws relating to indemnification of directors and officers generally provide that present and former directors and officers will be indemnified to the fullest extent permissible under Michigan law. The provision also provides for the advancement of litigation expenses at the request of a director or officer.

The MBCA also permits Michigan corporations to limit the personal liability of directors for a breach of their fiduciary duty. The provisions of the Company's Articles of Incorporation limit director liability to the maximum extent currently permitted by Michigan law. Michigan law allows a corporation to provide in its articles of incorporation that a director of the corporation will not be personally liable to the corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, except for liability for specified acts.

Section 567 of the MBCA authorizes the Company to purchase and maintain insurance on behalf of a person who is or was a director, officer, employee or agent of the Company or who serves at the request of the Company as a director, officer, partner, trustee, employee or agent of another enterprise, whether or not the Company would have the power to indemnify him or her under the Bylaws or the laws of the State of Michigan. The Company maintains a directors and officers' insurance policy.

Item 16. Exhibits.

**EXHIBIT
NUMBER DESCRIPTION**

- 5.1 Opinion of Dykema Gossett PLLC
- 23.1 Consent of Plante & Moran, PLLC
- 23.2 Consent of Dykema Gossett PLLC, included in Exhibit 5.1 filed herewith
- 24.1 Power of Attorney of Ronald D. Boyd
- 24.2 Power of Attorney of Kenneth L. Holt
- 24.3 Power of Attorney of Patrick J. Bagley

Item 17. Undertakings.

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(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;

(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 this registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 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 this registration statement or any material change to such information in this 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 this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide 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 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of this registration statement as of the date the filed prospectus was deemed part of and included in this 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 shall be deemed to be part of and included in this 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 this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is part of this 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 this registration statement or prospectus that was part of this 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 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

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securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be sellers 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;

(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 their 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, each filing of the registrant's annual reports pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this 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) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of any 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 their counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question as to whether such indemnification by them is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Wixom, State of Michigan, on July 24, 2009.

ROCKWELL MEDICAL TECHNOLOGIES,
INC.

By: /s/ Robert L. Chioini
Robert L. Chioini
President, Chief Executive Officer, and
Chairman of the Board

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

Signature	Title	Date
/s/ Robert L. Chioini Robert L. Chioini	President, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	July 24, 2009
/s/ Thomas E. Klema Thomas E. Klema	Vice President of Finance, Chief Financial Officer, Treasurer, and Secretary (Principal Financial Officer and Principal Accounting Officer)	July 24, 2009
* Ronald D. Boyd	Director	July 24, 2009
* Kenneth L. Holt	Director	July 24, 2009
* Patrick J. Bagley	Director	July 24, 2009
/s/ Thomas E. Klema		

* By Thomas E. Klema, attorney in fact

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