

RTI INTERNATIONAL METALS INC

Form 424B5

April 12, 2013

Table of Contents

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-171034

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
1.625% Convertible Senior Notes due 2019	\$402,500,000(1)(2)	100%	\$402,500,000(1)(2)	\$54,901.00(3)
Common Stock, \$0.001 par value per share	(4)	(4)	(4)	(5)

(1) Equals the aggregate principal amount of 1.625% Convertible Senior Notes due 2019 to be registered hereunder. These amounts are estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) of the Securities Act of 1933, as amended (the Securities Act).

(2) Includes \$52,500,000 in aggregate principal amount of 1.625% Convertible Senior Notes due 2019 that may be offered and sold pursuant to the exercise in full of the underwriter s option to purchase additional 1.625% Convertible Senior Notes due 2019.

(3) Calculated pursuant to Rule 457(o) and Rule 457(r) under the Securities Act.

(4) An indeterminate number of shares of common stock are being registered as may be issued from time to time upon conversion of the 1.625% Convertible Senior Notes due 2019. Pursuant to Rule 416 under the Securities Act, the Registrant is also registering an indeterminate number of shares of common stock as may become issuable upon conversion by reason of adjustments in the conversion price.

(5) Pursuant to Rule 457(i) under the Securities Act, no separate registration fee is required for the shares of common stock underlying the 1.625% Convertible Senior Notes due 2019 because no additional consideration is to be received in connection with the exercise of the conversion privilege.

Table of Contents

PROSPECTUS SUPPLEMENT

(To Prospectus Dated December 8, 2010)

\$350,000,000

1.625% Convertible Senior Notes due 2019

We are offering \$350,000,000 principal amount of our 1.625% Convertible Senior Notes due 2019. The notes will bear interest at a rate of 1.625% per year, payable semiannually in arrears on April 15 and October 15 of each year, beginning on October 15, 2013. The notes will mature on October 15, 2019 unless earlier repurchased or converted.

Holder may convert their notes at their option prior to the close of business on the business day immediately preceding April 15, 2019 only under the following circumstances: (1) during any calendar quarter commencing after June 30, 2013 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the applicable conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the measurement period) in which, for each trading day of such measurement period, the trading price per \$1,000 principal amount of notes on such trading day was less than 98% of the product of the last reported sale price of our common stock on such trading day and the applicable conversion rate on such trading day; or (3) upon the occurrence of specified corporate transactions. Irrespective of the foregoing conditions, on or after April 15, 2019 until the close of business on the second scheduled trading day immediately preceding the maturity date of the notes, holders may convert their notes, in integral multiples of \$1,000 principal amount, at the option of the holder. Upon conversion, we will pay or deliver, as the case may be, shares of our common stock, cash or a combination of cash and shares of our common stock, at our election, as described in this prospectus supplement.

The initial conversion rate will be 24.5604 shares of our common stock per \$1,000 principal amount of notes, equivalent to an initial conversion price of approximately \$40.72 per share of common stock. The conversion rate will be subject to adjustment upon the occurrence of certain events as described in this prospectus supplement, but will not be adjusted for accrued and unpaid interest, if any. In addition, following certain corporate transactions, we will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate transaction in certain circumstances.

We may not redeem the notes prior to the maturity date of the notes.

If we undergo a fundamental change (as defined in this prospectus supplement under Description of Notes Fundamental Change Permits Holders to Require Us to Purchase Notes) holders may, subject to certain conditions, require us to purchase all or any portion of the notes equal to \$1,000 in principal amount or an integral multiple thereof for cash at a price equal to 100% of the principal amount of the notes to be purchased plus any accrued and unpaid interest up to, but excluding, the fundamental change purchase date.

The notes will be our senior unsecured obligations and will rank senior in right of payment to our existing and future indebtedness that is expressly subordinated in right of payment to the notes; will rank equal in right of payment to our existing and future unsecured indebtedness that is not so subordinated; will be effectively subordinated to any of our secured indebtedness to the extent of the value of the assets securing such secured indebtedness; and will be structurally subordinated to all existing and future indebtedness and other obligations of our subsidiaries that do not guarantee the notes. The notes will be guaranteed by each of our subsidiaries that guarantee our obligations under our existing credit facility as further described under Description of Current Indebtedness and Description of Notes Subsidiary Guarantees.

For a more detailed description of the terms of the notes, see the Description of Notes section of this prospectus supplement.

The notes will not be listed on any securities exchange. Our common stock is listed on the New York Stock Exchange under the symbol RTI. The last reported sale price of our common stock on the New York Stock Exchange on April 11, 2013 was \$30.16 per share.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

Investment in the notes involves a high degree of risk. See Risk Factors beginning on page S-16 of this prospectus supplement for a discussion of certain risks that you should consider in connection with an investment in the notes.

	Price to Public(1)	Underwriting Discounts and Commissions	Proceeds, Before Expenses
Per note	100.0%	3.0%	97.0%
Total	\$ 350,000,000	\$ 10,500,000	\$ 339,500,000

(1) Plus accrued interest, if any, from April 17, 2013.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

We have granted the underwriters a 30-day option to purchase up to an additional \$52,500,000 aggregate principal amount of notes, solely to cover over-allotments, if any.

We expect that delivery of the notes will be made to investors in book-entry form through The Depository Trust Company on or about April 17, 2013.

Joint Book-Running Managers

Barclays

Citigroup

Senior Co-Managers

FBR

Stifel

Co-Managers

PNC Capital Markets LLC

Comerica Securities
Prospectus Supplement dated April 11, 2013

RBS

Table of Contents

**TABLE OF CONTENTS
PROSPECTUS SUPPLEMENT**

<u>PROSPECTUS SUPPLEMENT</u>	S-1
<u>INDUSTRY AND MARKET DATA</u>	S-1
<u>WHERE YOU CAN FIND MORE INFORMATION ABOUT US</u>	S-1
<u>FORWARD-LOOKING STATEMENTS</u>	S-3
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-5
<u>THE OFFERING</u>	S-10
<u>SUMMARY CONSOLIDATED FINANCIAL AND OPERATING DATA</u>	S-15
<u>RISK FACTORS</u>	S-16
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	S-34
<u>USE OF PROCEEDS</u>	S-35
<u>CAPITALIZATION</u>	S-36
<u>COMMON STOCK PRICE RANGE</u>	S-38
<u>DIVIDEND POLICY</u>	S-38
<u>BUSINESS</u>	S-39
<u>PRINCIPAL EXECUTIVE OFFICERS</u>	S-47
<u>DESCRIPTION OF CERTAIN INDEBTEDNESS</u>	S-49
<u>DESCRIPTION OF NOTES</u>	S-51
<u>DESCRIPTION OF COMMON STOCK</u>	S-82
<u>CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS</u>	S-82
<u>UNDERWRITING</u>	S-90
<u>LEGAL MATTERS</u>	S-92
<u>EXPERTS</u>	S-92

PROSPECTUS

<u>SUMMARY DESCRIPTION OF RTI AND THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>FORWARD-LOOKING STATEMENTS</u>	3
<u>RISK FACTORS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	4
<u>DESCRIPTION OF SECURITIES</u>	4
<u>DESCRIPTION OF RTI CAPITAL STOCK</u>	5
<u>DESCRIPTION OF DEBT SECURITIES</u>	7
<u>DESCRIPTION OF WARRANTS</u>	18
<u>DESCRIPTION OF PURCHASE CONTRACTS</u>	18
<u>DESCRIPTION OF UNITS</u>	18
<u>DESCRIPTION OF DEPOSITARY SHARES</u>	19
<u>PLAN OF DISTRIBUTION</u>	19
<u>LEGAL MATTERS</u>	20
<u>EXPERTS</u>	20

Table of Contents

PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is the prospectus supplement, which describes the specific terms of this offering and certain other matters relating to RTI International Metals, Inc. The second part, the accompanying prospectus, gives more general information, some of which does not apply to this offering. Generally, when we refer to the prospectus, we are referring to both parts of this document combined. You should read this prospectus supplement and the accompanying prospectus, together with the additional information described below under the headings [Where You Can Find More Information About Us](#) and [Incorporation of SEC Filings](#) and in any free writing prospectus we have authorized for use in connection with this offering.

If the description of this offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement.

Any statement made in this prospectus supplement or in a document incorporated or deemed to be incorporated by reference in this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that is also incorporated or deemed to be incorporated by reference in this prospectus supplement modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement. See [Where You Can Find More Information About Us](#).

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus or any free writing prospectus we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference and in any free writing prospectus we have authorized for use in connection with this offering is accurate only as of the respective dates of those documents in which this information is contained. Our business, financial condition, results of operations and prospects may have changed since those dates.

INDUSTRY AND MARKET DATA

Industry and market data contained or incorporated by reference in this prospectus supplement were obtained through company research, surveys and studies conducted by third parties and industry and general publications, or based on our experience in the industry. Estimates are inherently uncertain, involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading [Risk Factors](#) in this prospectus supplement. We have not independently verified market and industry data from third-party sources. While we believe internal company surveys and assumptions are reliable and market definitions are appropriate, neither these surveys and assumptions nor these definitions have been verified by any independent sources and we cannot confirm that they are accurate.

WHERE YOU CAN FIND MORE INFORMATION ABOUT US

We are required to file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the [SEC](#)). You may read and copy any reports, statements or other information we file with the SEC, including the registration statement of which this prospectus supplement is a

Table of Contents

part, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information about the operation of the SEC's Public Reference Room in Washington, D.C. by calling the SEC at (800) 732-0330. Our filings are also available to the public from commercial retrieval services, at the website maintained by the SEC at www.sec.gov, and on our website at www.rtiintl.com. Our common stock is listed and traded on the New York Stock Exchange (the NYSE), under the trading symbol RTI. Our reports, proxy statements and other information can also be read at the offices of the NYSE, 20 Broad Street, New York, New York 10005.

We filed a registration statement on Form S-3, as amended by a Post-Effective Amendment to Form S-3, to register with the SEC the RTI securities we may offer and sell pursuant to this prospectus supplement. As allowed by SEC rules, this prospectus supplement does not contain all the information you can find in the registration statement or the exhibits to the registration statement. You may obtain copies of the Form S-3 and exhibits (and any amendments to those documents) in the manner described above.

Incorporation of SEC filings

The SEC's rules allow us to incorporate by reference information into this prospectus supplement, which means that we can disclose important information to you by referring you to other documents that we have filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus supplement, except for any information superseded by information contained directly in this prospectus supplement or in a later filed document incorporated by reference in this prospectus supplement. We incorporate by reference into this prospectus supplement the documents set forth below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), after the initial filing of this prospectus supplement and prior to the time that we sell all of the securities offered by this prospectus supplement, other than any information furnished pursuant to Item 2.02 or Item 7.01 of any Current Report on Form 8-K unless we specifically state in such Current Report that such information is considered to be filed under the Exchange Act or we incorporate it by reference into a filing under the Securities Act of 1933 (the Securities Act) or the Exchange Act. These documents contain important information about RTI.

RTI's Annual Report on Form 10-K for the year ended December 31, 2012 filed with the SEC on February 22, 2013;

RTI's 2012 Proxy Statement filed with the SEC on March 28, 2013 (those parts incorporated by reference in our Annual Report on Form 10-K only);

RTI's Current Report on Form 8-K filed on March 7, 2013;

RTI's Current Report on Form 8-K filed on April 11, 2013;

The description of RTI's common stock contained in our Registration Statement on Form 8-A-12B (Registration No. 1-14437) dated August 21, 1998, including any reports updating that description.

You may obtain copies, without charge, of documents incorporated by reference in this prospectus supplement, by requesting them from us in writing or by telephone as follows:

RTI International Metals, Inc.

Westpointe Corporate Center One

1550 Coraopolis Heights Road, Fifth Floor

Pittsburgh, PA 15108-2973

Telephone: (412) 893-0026

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

Exhibits to the filings will not be sent, unless those exhibits have been specifically incorporated by reference in this prospectus.

S-2

Table of Contents

General information about RTI, including our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website at <http://www.rtiintl.com> as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Other information contained on our website is not incorporated into this prospectus or our other securities filings and is not a part of these filings.

FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. This prospectus supplement and the accompanying prospectus (including the documents incorporated herein and therein by reference), may contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. Additionally, we or our representatives may, from time to time, make other written or verbal forward-looking statements. In this prospectus supplement and the accompanying prospectus (including the documents incorporated by reference herein and therein), we discuss expectations regarding our business, financial condition and results of operations. Without limiting the foregoing, words or phrases such as will likely result, are expected to, will continue, is anticipated, believe, estimate, project (including the negative or variations thereof) or similar terminology, generally identify forward-looking statements. Forward-looking statements may also represent challenging goals for us. As such, they are based on current expectations and are subject to certain risks and uncertainties. We caution that undue reliance should not be placed on such forward-looking statements, which speak only as of the date made. In order to comply with the terms of the safe harbor, we identify for investors important risk factors which could affect our financial performance and could cause actual results for future periods to differ materially from the anticipated results or other expectations expressed in the forward-looking statements.

Investing in our securities involves risk. Before you invest in our securities, you should carefully consider some of the factors which could cause our results to differ from those expressed in any forward-looking statement, which are set forth under the caption Risk Factors below, and in the accompanying prospectus, and subsequent Form 10-Q and Form 10-K filings made with the SEC, each of which is incorporated by reference herein, and include:

global economic and political uncertainties,

a significant portion of our revenue is concentrated within the commercial aerospace and defense industries and the limited number of potential customers within those industries,

the future availability and prices of raw materials,

the historic cyclical nature of the titanium and commercial aerospace industries,

changes in defense spending and cancellation or changes in defense programs or initiatives, including the Joint Strike Fighter program,

our ability to successfully integrate newly acquired businesses,

long-term supply agreements and the impact if another party to a long-term supply agreement fails to fulfill its requirements under existing contracts or successfully manage its future development and production schedule,

the impact of the current titanium inventory overhang throughout our supply chain,

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

our ability to recover the carrying value of goodwill and other intangible assets,

the impact of the Boeing 787 Dreamliner® lithium-ion battery investigation, including any potential production delays,

competition in the titanium industry,

S-3

Table of Contents

our ability to attract and retain key personnel,

our ability to obtain access to financial markets and to maintain current covenant requirements,

legislative challenges to the Specialty Metals Clause, which requires that titanium for U.S. defense programs be produced in the U.S.,

labor matters,

risks related to international operations,

our ability to execute on new business awards,

potential costs for violations of applicable environmental, health, and safety laws,

our order backlog and the conversion of that backlog into revenue,

fluctuations in our income tax obligations and effective income tax rate,

demand for our products, and

other statements contained herein that are not historical facts.

You should carefully consider all of the information in or incorporated by reference in this prospectus supplement and the accompanying prospectus prior to investing in our securities. Except as may be required under applicable law, we undertake no duty to update our forward-looking statements.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary only highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus. As a result, it does not contain all of the information that you should consider before purchasing the notes. You should read the entire prospectus supplement, including the accompanying prospectus and the documents incorporated by reference, which are described under the caption *Where You Can Find More Information About Us*. When used in this prospectus supplement, unless the context requires otherwise, the terms *we*, *our* and *us* refer to RTI International Metals, Inc. and its consolidated subsidiaries. Unless otherwise specified, any reference to a *year* is to a fiscal year ended December 31.

RTI International Metals, Inc.

We are a leading producer and global supplier of titanium mill products and a manufacturer of fabricated titanium and specialty metal components for the international aerospace, defense, energy, medical device and other markets. Our integrated business model enables us to provide a broad range of product solutions, which we expect to leverage by increasing our percentage share of the total amount of titanium products acquired by our customers. As of December 31, 2012, we conducted our operations in three reportable segments: the Titanium Group, the Fabrication Group, and the Distribution Group. As of January 2013, we revised our reporting structure so as to conduct our operations in two reportable segments: the Titanium Segment and the Engineered Products and Services Segment. The revised structure that became effective January 2013 combined the majority of our former Distribution Group with the Titanium Group, with the remaining portion of the former Distribution Group combined with the former Fabrication Group to become the Engineered Products and Services Segment. The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by its customers for use in a variety of commercial aerospace, defense, and industrial applications. The Titanium Group also produces ferro titanium alloys for its steel-making customers. The Fabrication Group is comprised of companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets. The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys. Both the Fabrication Group and Distribution Group utilize the Titanium Group as their primary source of titanium mill products.

Competitive Strengths

Leading Vertically Integrated Supplier to a Diverse Customer Base. We maintain a breadth and scale of capabilities that allow us to provide our customers with engineered products and solutions ranging from titanium mill products to finished, precision machined, advanced titanium parts, major assemblies, kitting, and system integration as well as virtually any intermediate processed titanium component that is hot and super plastic formed, or extruded. We are also able to collaboratively engineer titanium solutions for our customers in a way that helps them reduce manufacturing costs and/or achieve improved product performance. We believe that our participation throughout the titanium manufacturing supply chain, especially with respect to our engineered products and services capabilities, will provide a competitive advantage as (i) aircraft production increases and continued design enhancements drive greater demand for fabricated titanium parts, (ii) oil and natural gas extraction goes into deeper water and harsher environments whereby the strength, corrosion resistance, and relatively lighter weight performance characteristics of titanium create a competitive, high performance solution relative to other materials, and (iii) medical device manufacturers continue to use precision machined titanium components not only as implants into the human body but also for the instruments used for minimally invasive

Table of Contents

and robotic surgery. We believe that our presence throughout the supply chain should serve to accelerate our revenue growth and profitability during periods of aircraft build-rate expansion and as our customers increasingly seek merchant supplier partners able to provide a full range of integrated supply chain solutions. And our diversification efforts into the energy and medical device end markets should provide a more balanced and stable revenue stream. We believe that we are the fourth largest producer of aerospace-grade titanium mill products globally and that our size, expertise and domestic and international locations enable us to effectively serve the needs of our global customers across the aerospace, defense, energy, medical device and other end markets.

Longstanding Relationships and Long-Term Agreements with Key Customers. We believe that our focus on providing high value-added products, successful track record of production and delivery of engineered, advanced titanium components and mill products, research and development efforts, and vertically-integrated engineered product solutions have enabled us to forge strong and longstanding relationships with our customers. For example, we have been a supplier of titanium mill products to Airbus S.A.S. (Airbus) and Lockheed Martin Corporation (Lockheed Martin) for over 30 years. As a result of these relationships and our historic performance, we have been successful in securing several long-term agreements (LTAs) for the supply of titanium mill products and complex engineered components and assemblies for our customers. Our most significant LTAs are with Lockheed Martin, Airbus, and The Boeing Company (Boeing), which we estimate will generate net sales of approximately \$1.3 billion, \$1.3 billion, and \$1.4 billion, respectively, over the term of each contract. These LTAs are requirement contracts (that is, a contract to supply (and likewise to purchase) product requirements) and either have fixed pricing, pricing tied to an index or another pricing methodology.

Key Supplier Positions on Current and Future Aerospace and Defense Programs. We supply engineered and precision machined components and assemblies and titanium mill products to our customers in support of several current and next generation aerospace and defense platforms. We are the only titanium company with significant content for the structural airframe on all four of the key next generation aircraft platforms (*i.e.* the Airbus A350XWB and A380, Boeing 787, and Lockheed Martin F-35). Under our LTA with Lockheed Martin, we are the primary titanium mill product supplier for the F-35 Joint Strike Fighter (JSF). The JSF is set to become the fighter for the 21st Century with projected production exceeding 3,000 aircraft over the life of the program. In 2007, we were awarded a long-term contract extension from Lockheed Martin to supply the first eight million pounds of the JSF annual titanium requirement through 2020. Similarly, we supply over 30% of the titanium on Airbus commercial aircraft platforms such as the A380 and A320, as well as military programs such as the A400M and Eurofighter Typhoon. Additionally, we are the sole supplier of seat tracks and various other titanium parts to Boeing in support of the 787 program. Our revenue per 787 is expected to range from approximately \$0.9 to \$1.7 million. Although this project has experienced substantial delays, Boeing has delivered 49 aircraft and expects that by late 2014 it will deliver ten aircraft per month. Under expected lead times, we will deliver the seat tracks to Boeing approximately six to 12 months before final delivery. Airbus has also announced the launch of a new aircraft, the A350XWB, to compete with Boeing's 787 models. The A350XWB is projected to enter service in 2014. We have been selected by Airbus to provide seat tracks and critical, machined titanium door structures in support of this program. These new aircraft will use substantially more titanium per aircraft than any other commercial aircraft. As production of these new aircraft increases, titanium demand for aerospace applications is expected to grow to levels significantly above previous peak levels. In addition to aerospace applications, there are numerous titanium uses on ground vehicles and artillery driven by its armoring (greater strength) and mobility (lighter weight) enhancements. An example of these qualities is the light-weight Howitzer program which began full-rate production in 2005. We remain the principal titanium supplier for the Howitzer under a contract with BAE Systems through the first quarter of 2014.

Favorable Long-Term End Market Dynamics. We serve the aerospace, defense, energy, medical device and other industrial and consumer markets. A common theme within the commercial aerospace and defense markets is the increased use of titanium on airframes and in jet engines, as well as in artillery weapon systems and armored vehicles. Titanium is growing in its use due to the metal's high strength, light weight, compatibility

Table of Contents

with composites, and noncorrosive qualities, which serves to increase operating efficiencies and lower life-cycle costs. We believe that Wide Body jets will represent almost 69% of the titanium used in commercial aircraft by 2013. For example, the A380 requires approximately 250,000 pounds of titanium per plane versus 30,000 pounds for an A320 narrow-body airframe. According to *The Airline Monitor*, Wide Body commercial jets are forecasted to grow in annual production from approximately 319 in 2012 to approximately 475 in 2017. Further, while requirements differ by variant, the JSF in the defense sector is currently expected to require approximately 45,000 pounds of titanium per plane. In the energy sector, the demand for our products for oil and gas extraction, including deep-drilling exploration and production, is expected to grow over the next several years from further development of energy from deepwater and difficult-to-reach locations around the globe. As the complexity of oil and gas exploration and production increases, the expected scope of potential uses for titanium-based structures and components is expected to increase, primarily due to titanium's lighter weight and non-corrosive characteristics. In addition to the growth characteristics associated with global healthcare generally (growing elderly population, increased obesity and associated medical complications and new treatment options as a result of advances in medical technology) medical device original equipment manufacturers (OEMs) are increasing the proportion of their manufacturing that they out-source (30% currently and estimated to grow to 33% by 2018) to specialized contract manufactures in order to focus on more core value-adding activities in research and development and sales and marketing. Titanium is an important material for medical implants as it is not rejected by the human body. It is also a key performance material for surgical instruments that require unique, light and high strength performance characteristics. Growth in developing nations, such as China, India, and the Middle East, has stimulated increased demand from the Chemical Process Industry (CPI) for heat exchangers, tubing for power plant construction, and specialty metals for desalinization plants.

High Barriers to Entry. The titanium industry is a highly competitive and global market requiring significant capital investment and technical expertise to manufacture mill products. We believe that the primary factors driving customers' titanium product buying decisions are product quality, price, and the ability to meet quantity demands on time, and that we have developed the infrastructure and experience necessary to satisfy these demands. Before any major capital equipment can be placed into service, the output must be certified to meet exacting customer specifications. Customers typically require many production trials and intense testing protocols, often of varying mixes involving different alloys. This certification process can take as long as 18 months for established producers and much longer for new producers. In light of the rigid and often complicated specifications of titanium products, sophisticated metallurgical and/or chemical testing and inspection techniques must be deployed prior to shipment. While the engineered product and services business is less capital intensive, we believe lack of vertical integration and lack of a lengthy track record represent significant barriers to entry in that business. Global customers are focused on working with suppliers capable of providing integrated, manufacturing and/or engineered solutions and are reluctant to entrust unproven new entrants with critical supply chain responsibilities. We believe the combination of these factors substantially complicates replicating our integrated platform.

Strong and Experienced Management Team. Our management team, led by our CEO Dawne Hickton, includes executives and managers with significant industry, operational, and functional area experience who play a significant role in establishing and maintaining relationships with our customers and suppliers. Our named executive officers, on average, have more than 21 years of industry, operational, and functional area experience and are key contributors to our growth strategy, as well as lead the implementation of various productivity and profit enhancement programs.

Business and Growth Strategies

Continue to Capitalize on Favorable Long-Term Industry Trends. We believe that the long-term dynamics of the aerospace, defense, energy, and medical device markets are favorable, as the amount of titanium used in

Table of Contents

precision machined components, and on aerospace platforms, is expected to continue to increase. We believe that these long-term dynamics are evidenced by the trend toward Wide Body aircraft accounting for an increasingly larger percentage of Boeing and Airbus order backlogs, procurement plans for the JSF, the ballistic armor needs of military ground vehicles, energy applications requiring stronger, lighter and more corrosion resistant materials and growing adoption and use of titanium implants and precision machined components used by medical doctors for minimally invasive and robotic surgeries. Specifically within the aerospace industry, this increase is driven by airlines' demand for enhanced operational efficiencies, lower life-cycle costs and more fuel-efficient and quieter aircraft. We believe that world demand for titanium will increase at a compounded annual growth rate (CAGR) of 4.4% from 2012 through 2017. We believe that demand for titanium within our largest end market, commercial aerospace, will increase at a CAGR of 6.0% over the same period, as newer generation and Wide Body aircraft gain a greater share of total deliveries. Not only do we expect that titanium mill product demand will grow, we also expect that demand for precision machined titanium parts will also increase as manufacturers realize the overall life-cycle benefits (durability, longevity, fuel-efficiency and noise reduction) of titanium versus other materials. The U.S. medical device contract manufacturing market was estimated to be \$14.0 billion in 2011, growing at 7.7% annually to reach \$20.3 billion in 2016 as OEMs outsource more of their production to contract manufacturers who can also collaboratively engineer and design medical device components and surgical apparatus that improve performance and/or reduce manufacturing costs.

Successfully Execute Existing LTAs and Pursue Additional LTAs. We continue to focus significant management attention on effective execution of our existing LTAs. We seek to capitalize on our strong historical performance in order to extend the term and increase the scope of our existing agreements and obtain new LTAs with our customers. We believe there are attractive opportunities across both existing and future aerospace and defense platforms as well as for oil and gas extraction activities, medical implants and minimally invasive surgical tools and instruments to provide both mill products and highly-engineered titanium components on an exclusive and long-term basis. We have been successful in this strategy, as evidenced by our recently announced agreement with Airbus to provide fabricated components in support of the A350 and A320 platforms. In addition, under our LTA with Lockheed Martin, we will supply the first eight million pounds of titanium annually for the JSF. We anticipate that Lockheed Martin may need more than eight million pounds per year when the program ramps up to full rate production, which is expected in 2015. Further, we believe that there are opportunities for us to expand the scope of our relationship with Lockheed Martin in support of the F-35 program by acting as an integrated supplier of fabricated components in addition to providing titanium mill products.

Continue to Invest in Strategic Capital Expansion Projects. We will continue to invest in capital expansion projects that we believe will generate appropriate returns on invested capital and provide us with customer or program expansion opportunities. For example, we recently completed the construction and equipment installation for a forging facility in Martinsville, Virginia in order to support our LTAs with Airbus and Lockheed Martin. This facility began production in 2012 and will enable us to enhance our throughput and shorten lead times on certain products, primarily intermediate conversion of titanium billet, sheet and plate. Furthermore, the Martinsville site is designed to allow the installation of new equipment that will expand our flat rolling capacity for titanium sheet and plate. We have also recently expanded our melting capabilities at our facilities in Niles and Canton, Ohio in support of those same LTAs and are in the midst of completing the qualification for a new electron beam furnace that will expand our melting capacity, reduce our production costs for certain titanium mill products and provide a key technology enabler for aircraft engine products, a targeted growth market. In the future, we will consider technology-based initiatives, including enhancing and expanding the capabilities of our existing equipment, that we believe will position us well to pursue additional business in existing and new segments of our target markets. In total, we expect that our capital expenditures during 2013 will range between \$55 and \$65 million as we continue to invest in plant, equipment and technology to support our LTAs. Included in this \$55 to \$65 million range is approximately \$9 million that we had previously planned to spend in 2012.

Table of Contents

Focus on Operational Efficiencies and Profitability. Over the course of the past several years we have enhanced our management team by adding personnel with substantial operational expertise, such as James L. McCarley, our Executive Vice President-Operations. Mr. McCarley has significant manufacturing and fabrication operations experience and was formerly the President of Wyman Gordon-West, a global manufacturer of complex metal components. Since he joined RTI, we have added several new officers with substantial operations and integrated supply chain expertise within both of our Titanium and Engineered Products and Services Segments that occupy key operations roles. As a result of these investments in personnel, we have realized improvements in manufacturing yields and working capital efficiency, and expect to realize more of these benefits in the future. Consequently, as our mill product volumes and precision machined projects increase, we expect to continue to benefit from operational improvements, thereby generating incremental profitability.

Pursue Selected Acquisitions. Since the middle of 2010, we have been actively evaluating potential acquisition candidates as part of our broader strategic plan in an effort to enhance or improve our existing operations or capabilities, expand the potential scope of work with current customers, or provide access to new markets and/or customers for our products. For example, in November of 2011, we acquired the Forming Division of Aeromet, Inc., Welwyn Garden City, England, for \$36 million in order to expand the scale of our titanium forming capacity and enhance our technical forming capabilities, as well as substantially grow our commercial aerospace customer base. In February of 2012 we acquired Remmele Engineering, with four facilities in the Greater Minneapolis metropolitan area, for \$185 million, in order to expand our precision machining scale and capacity for commercial aerospace and defense markets as well as to open up a new medical device end-market. The Remmele acquisition also brought to RTI a significantly enhanced collaborative engineering as well as robotic manufacturing capabilities. By expanding the scale and scope of our engineering and machining activities, aerospace OEMs are more likely to use RTI for its engineering, machining, kitting and assembly needs. Our acquisition focus will continue to be on an vertically integrated capabilities in our Titanium and Engineered Products & Services segments that will further our strategy of becoming an integrated component supplier and allow us to expand our product offerings across new and existing customers.

Corporate Information

The address of our principal executive offices is Westpointe Corporate Center One, 1550 Coraopolis Heights Road, Fifth Floor, Pittsburgh, PA 15108-2973, and our telephone number at our principal executive offices is (412) 893-0026. We are an Ohio corporation, and our predecessors have been operating in the titanium industry since 1951.

Table of Contents

The Offering

The summary below describes the principal terms of the notes and is not intended to be complete. Certain of the terms and conditions described below are subject to important limitations and exceptions. The Description of Notes section of this prospectus supplement contains a more detailed description of the terms and conditions of the notes. As used in this section, we, our or us refer to RTI International Metals, Inc. and not to its consolidated subsidiaries.

Issuer	RTI International Metals, Inc., an Ohio corporation.
Securities	\$350,000,000 aggregate principal amount of 1.625% Convertible Senior Notes due 2019 (plus up to an additional \$52,500,000 aggregate principal amount to cover over-allotments, if any).
Maturity	October 15, 2019, unless earlier repurchased or converted.
Issue Price	100% plus accrued interest, if any, from April 17, 2013.
Interest	1.625% per year. Interest will accrue from April 17, 2013 and will be payable semiannually in arrears on April 15 and October 15 of each year, beginning October 15, 2013. We will pay additional interest, if any, under the circumstances described under Description of Notes Events of Default. All references to interest in this summary of the offering and the Description of Notes section of this prospectus supplement are deemed to include additional interest, if any, that accrues as described in that section.
Subsidiary Guarantees	<p>The notes will initially be guaranteed by six of our 100% owned subsidiaries, which are the same subsidiaries that guarantee our obligations under our existing credit facility. Any future subsidiaries that are added or removed as guarantors under our credit agreement will concurrently be added or removed as guarantors under the notes.</p> <p>Each subsidiary guarantee will be a joint and several, full and unconditional guarantee of our obligations under the indenture and the notes. See Description of Notes Subsidiary Guarantees and Description of Certain Indebtedness.</p>
Conversion Rights	<p>Holders may convert their notes prior to the close of business on the business day immediately preceding April 15, 2019, in integral multiples of \$1,000 principal amount, at the option of the holder, only under the following circumstances:</p> <p>during any calendar quarter commencing after June 30, 2013 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the preceding calendar quarter is greater than or equal to 130% of the applicable conversion price on each applicable trading day;</p>

during the five business day period after any five consecutive trading day period (the measurement period) in which the

S-10

Table of Contents

trading price (as defined under Description of Notes Conversion Rights Conversion upon Satisfaction of Trading Price Condition) per \$1,000 principal amount of notes for each trading day of such measurement period was less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate on such trading day; or

upon the occurrence of specified corporate transactions described under Description of Notes Conversion Rights Conversion upon Specified Corporate Transactions.

On or after April 15, 2019, until the close of business on the second scheduled trading day immediately preceding the maturity date of the notes, holders may convert their notes, in integral multiples of \$1,000 principal amount, at the option of the holder regardless of whether any of the foregoing conditions has been met.

The conversion rate for the notes is initially 24.5604 shares of our common stock per \$1,000 principal amount of notes (equal to an initial conversion price of approximately \$40.72 per share of common stock). The conversion rate will be subject to adjustment upon the occurrence of certain events as described in this prospectus supplement, but will not be adjusted for accrued and unpaid interest, if any.

Upon conversion, we will pay or deliver, as the case may be, shares of our common stock, cash or any combination of cash and shares of our common stock, at our election. If we elect to settle all or any portion of our conversion obligation in cash, the amount of cash, if any, and the number of shares of our common stock, if any, will be based on a daily conversion value (as described herein) calculated on a proportionate basis for each trading day in a 40 trading day observation period, as described herein. If we elect to settle all of our conversion obligation in shares of our common stock, we will deliver the shares of our common stock on the third business day following the conversion date (as defined below under Description of Notes Conversion Rights Conversion Procedures), and for all other conversions, we will pay or deliver, as the case may be, the cash, shares of our common stock, or combination thereof, on the third business day following the last day of the applicable observation period, regardless of whether we elect to satisfy all or any portion of our conversion obligation in cash, except as described under Description of Notes Conversion Rights Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change. See Description of Notes Conversion Rights Settlement upon Conversion.

Following certain corporate transactions, we will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate transaction in certain circumstances as described under Description of Notes Conversion Rights Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change.

Table of Contents

You will not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, upon conversion of a note, except in limited circumstances. Instead, upon conversion of a note, our delivery to you of the consideration due upon conversion, as described under Description of Notes Conversion Rights Settlement upon Conversion will be deemed to satisfy in full our obligation to pay the principal amount of the note and any accrued and unpaid interest up to, but not including, the conversion date.

Redemption

We may not redeem the notes prior to the maturity date of the notes.

Fundamental Change

If we undergo a fundamental change (as defined in this prospectus supplement under Description of Notes Fundamental Change Permits Holders to Require Us to Purchase Notes), subject to certain conditions, you will have the option to require us to purchase all or any portion of your notes that is equal to \$1,000 in principal amount or an integral multiple thereof for cash. The fundamental change purchase price will be 100% of the principal amount of the notes to be purchased, plus any accrued and unpaid interest up to, but excluding, the fundamental change purchase date.

Ranking

The notes will be our senior unsecured obligations and will:

rank senior in right of payment to our existing and future indebtedness that is expressly subordinated in right of payment to the notes;

rank equal in right of payment to our existing and future liabilities that are not so subordinated;

be effectively subordinated to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness (including any future indebtedness under our existing credit facility, which is secured by a pledge of 65% of the capital stock of our only currently material foreign subsidiary); and

be structurally subordinated to all existing and future indebtedness of our subsidiaries that do not guarantee the notes.

Each subsidiary guarantee will be a general unsecured obligation of the applicable subsidiary guarantor and will:

rank senior in right of payment to all such subsidiary guarantor's existing and future indebtedness that is expressly subordinated in right of payment to its subsidiary guarantee;

rank equal in right of payment to our existing and future liabilities of such subsidiary guarantor that are not so subordinated;

be effectively subordinated to any of the secured indebtedness of such subsidiary guarantor to the extent of the value of the assets securing such indebtedness; and

S-12

Table of Contents

be structurally subordinated to all existing and future indebtedness and other obligations of subsidiaries of such subsidiary guarantor that do not themselves guarantee the notes.

As of December 31, 2012, our total consolidated indebtedness was \$199.3 million, all of which represented indebtedness under our 3.00% Convertible Senior Notes due 2015 (the 2015 Notes). As of that date, we also had approximately \$150 million of availability under our existing credit facility, which is secured by a pledge of 65% of the capital stock of our only currently material foreign subsidiary. As of December 31, 2012, we had no outstanding secured indebtedness or indebtedness that would have been subordinated to the notes or any subsidiary guarantee.

As of December 31, 2012, our subsidiaries held substantially all of our consolidated assets and generated substantially all of our consolidated revenues and operating income. As of December 31, 2012, our subsidiary guarantors collectively held approximately 70.5% of our consolidated assets and, for the year ended December 31, 2012, represented approximately 68.1% of our consolidated net sales. For the year ended December 31, 2012, our subsidiary guarantors collectively represented 49.5% of our consolidated operating income. Additional financial information regarding RTI on an unconsolidated basis, the subsidiary guarantors and our subsidiaries that are not guarantor subsidiaries can be found in our Annual Report on Form 10-K filed on February 22, 2013.

The indenture governing the notes does not limit the amount of debt that we or our subsidiaries may incur.

Use of Proceeds

We estimate that the proceeds from this offering will be approximately \$339.0 million (or approximately \$389.9 million if the underwriters exercise their option to purchase additional notes in full), after deducting the underwriters' discount and estimated offering expenses. We have committed to use a portion of the net proceeds from the sale of the notes to repurchase approximately \$115.6 million aggregate principal amount of our existing 2015 Notes through individually negotiated private repurchases. The remaining net proceeds from the sale of the notes will be used for working capital and general corporate purposes, including capital expenditures, as well as potential future acquisitions. See Use of Proceeds.

If the underwriters exercise their over-allotment option, we will use the net proceeds for general corporate purposes.

Book-Entry Form

The notes will be issued in book-entry form and will be represented by one or more permanent global certificates deposited with, or on behalf of, The Depository Trust Company (DTC) and registered in the name of a nominee of DTC. Beneficial interests in any of the notes will be shown on, and transfers will be effected only through, records maintained by DTC or its nominee and any such interest may not be exchanged for certificated securities, except in limited circumstances. See Description of Notes Book-entry, Settlement and Clearance.

Table of Contents

Denomination	The notes will be issued in denominations of \$1,000 and integral multiples thereof.
Absence of a Public Market for The Notes	The notes are new securities and there is currently no established market for the notes. The underwriters have advised us that they currently intend to make a market in the notes. However, they are not obligated to do so, and they may discontinue any market making with respect to the notes without notice. We do not intend to apply for a listing of the notes on any securities exchange or arrange for the notes to be quoted on any automated dealer quotation system. Accordingly, we cannot assure you as to the development or liquidity of any market for the notes. Our common stock is listed on the New York Stock Exchange (the NYSE) under the symbol RTI.
Certain United States Federal Income Tax Considerations	For certain U.S. federal income tax considerations in connection with the holding, disposition and conversion of the notes, and the holding and disposition of shares of our common stock, see Certain U.S. Federal Income Tax Considerations.
Trustee, Paying Agent and Conversion Agent	The Bank of New York Mellon Trust Company, N.A.
Risk Factors	Investment in the notes involves significant risks. You should review the section titled Risk Factors and all other information included in this prospectus supplement and our SEC filings for a discussion of factors you should carefully consider before investing in the notes.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their right to purchase up to \$52,500,000 aggregate principal amount of additional notes to cover over-allotments, if any. See Underwriting.

Table of Contents**Summary Consolidated Financial and Operating Data**

We derived the summary consolidated financial and operating data shown below as of December 31, 2012, 2011 and 2010 and for each of the years then ended from our audited Consolidated Financial Statements, which are incorporated by reference into this prospectus supplement from our Annual Report on Form 10-K for the fiscal year ended December 31, 2012. You should read the following financial information in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our Consolidated Financial Statements and the related notes, each of which is incorporated by reference in this prospectus supplement.

See Ratio of Earnings to Fixed Charges for our ratio of earnings to fixed charges.

	Year Ended December 31,		
	2012	2011	2010
	(in thousands, except per share amounts)		
Income Statement Data:			
Net sales	\$ 738,608	\$ 529,679	\$ 431,793
Operating income (loss)	55,030	27,761	14,061
Income (loss) before income taxes	36,768	12,135	11,820
Net income (loss)	23,515	6,552	3,417
Earnings (loss) per share:			
Basic	\$ 0.78	\$ 0.22	\$ 0.11
Diluted	\$ 0.77	\$ 0.22	\$ 0.11

	As of December 31,		
	2012	2011	2010
	(in thousands, except per share amounts)		
Balance Sheet Data:			
Cash, cash equivalents and short-term investments	\$ 97,190	\$ 321,097	\$ 397,226
Working capital	474,051	585,690	636,656
Total assets	1,259,727	1,127,275	1,106,854
Total debt	199,294	186,981	178,107
Total shareholders' equity:	\$ 745,569	\$ 722,752	\$ 718,400

Table of Contents

RISK FACTORS

Any investment in our notes involves a high degree of risk. You should carefully consider the risks described below, in addition to the other information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus, before deciding whether to purchase our notes. In addition, you should carefully consider, among other things, the matters discussed under Risk Factors in other documents that we subsequently file with the SEC, all of which are incorporated by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the following risks actually occur, our business, financial condition and results of operations would suffer. In that event, our ability to fulfill our obligations under the notes could be materially affected, and you may lose all or part of your investment. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See Forward-Looking Statements.

Risks Related to the Notes

Fluctuations in the market price of our common stock may prevent you from being able to convert the notes and may impact the trading price of the notes and make them more difficult to resell. Holders who receive common stock upon conversion of the notes will also be subject to the risk of volatility and depressed prices of our common stock.

Until April 15, 2019, the ability of holders of the notes to convert the notes is conditioned on the last reported sale price of our common stock reaching a specified threshold, the trading price of the notes falling below a specified threshold for a specified period or the occurrence of specified corporate transactions, such as fundamental changes. If the sales price condition for conversion of the notes is satisfied during a calendar quarter, holders may convert the notes only during the subsequent calendar quarter. If such sales price condition is not satisfied, the trading price of the notes does not fall below a specified threshold for a specified period and the other specified corporate transactions that would permit a holder to convert notes do not occur, holders would not be able to convert their notes except during the six month period prior to the maturity date. For these and other reasons, the trading price of the notes could be less than the conversion value of the notes. See Description of Notes Conversion Rights General.

The market price for our common stock has varied between a high of \$32.43 on March 27, 2013 and a low of \$20.29 on June 1, 2012 in the twelve month period ended March 31, 2013. Because the conversion value of the notes is based on the market price of our common stock, any decline in the market price of our common stock could have a similar effect on the trading price of the notes and could limit the amount of cash payable and the number of shares deliverable, if any, upon conversion of the notes. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market and other factors, including the other factors discussed in Risks Related to Our Common Stock.

The notes and subsidiary guarantees will be effectively subordinated to current and future secured debt of RTI or the subsidiary guarantors.

Our obligations under the notes and each subsidiary guarantor's obligations under its subsidiary guarantee of the notes are unsecured. The notes and each subsidiary guarantee will rank equal in right of payment to the existing and future liabilities of RTI or the applicable subsidiary guarantor that are not expressly subordinated in right of payment to the notes or the applicable subsidiary guarantee, and will be effectively subordinated to any of our or the applicable subsidiary guarantor's secured indebtedness to the extent of the value of the assets securing such indebtedness. As of December 31, 2012, we had no secured indebtedness. As of that date, we also had approximately \$150 million of availability under our existing credit facility, which is secured by a pledge of 65% of the capital stock of our only currently material foreign subsidiary. In the event of our or any subsidiary guarantor's bankruptcy, liquidation, reorganization or other winding up, our or such subsidiary guarantor's assets

Table of Contents

that secure debt ranking senior or equal in right of payment to the notes or the applicable subsidiary guarantee will be available to pay obligations on the notes or the applicable subsidiary guarantee only after such secured debt has been repaid in full. There may not be sufficient assets remaining to pay amounts due on the notes or the applicable subsidiary guarantee. See Description of Certain Indebtedness.

The notes will be structurally junior to indebtedness of our non-guarantor subsidiaries.

You will not have any claim as a creditor against any of our non-guarantor subsidiaries and indebtedness and other liabilities, including trade payables, of those subsidiaries will effectively be senior to your claims against those subsidiaries. At December 31, 2012, our non-guarantor subsidiaries had \$110.2 million of outstanding liabilities, including trade payables, but excluding intercompany indebtedness. The notes will be structurally subordinated to all indebtedness and other obligations of our subsidiaries that do not guarantee the notes. In the event of a dissolution, bankruptcy, liquidation, reorganization or other winding up of any of our non-guarantor subsidiaries, holders of their indebtedness and their other creditors will generally be entitled to payment of their claims from the assets of those subsidiaries before any assets are made available for distribution to us. The indenture governing the notes does not prohibit us from incurring additional senior debt or secured debt, nor does it prohibit any of our subsidiaries from incurring additional debt or other liabilities.

As of December 31, 2012, our consolidated indebtedness was \$199.3 million. After giving effect to the issuance of the notes (assuming no exercise of the underwriters' over-allotment option) and the use of proceeds from the notes (assuming no repurchase of our existing 2015 Notes), our consolidated indebtedness would have been \$449.3 million, none of which would constitute debt of our non-guarantor subsidiaries.

We may not have the ability to raise the funds necessary to settle conversions of the notes for cash or to purchase the notes upon a fundamental change.

At maturity, the entire principal amount of the notes then outstanding, plus any accrued and unpaid interest, will become due and payable by us. Holders of the notes will also have the right to require us to repurchase the notes upon the occurrence of a fundamental change at 100% of their principal amount plus accrued and unpaid interest, if any, as described under Description of Notes Fundamental Change Permits Holders to Require Us to Purchase Notes. In addition, upon conversion of the notes, unless we elect to settle such conversion solely by delivery of shares of our common stock, we will be required to make cash payments in respect of the notes being converted as described under Description of Notes Conversion Rights Settlement upon Conversion. We may not have enough available cash or be able to obtain financing at the time it is required to make required repurchases of notes surrendered therefor or to meet our conversion obligations or other obligations with respect to the notes. Upon conversion of the notes, we will be required to elect a settlement method either on the business day following the conversion date or on the business day immediately preceding April 15, 2019. Our election of a settlement method will be irrevocable. Our cash on hand and our ability to obtain financing may decrease significantly during such period and it may be difficult for us to accurately predict such reductions. In addition, our ability to repurchase the notes or to pay cash upon conversion or the maturity of the notes may be limited by law, by regulatory authority, by agreements governing our existing or future indebtedness or by restrictions on the ability of our subsidiaries to make distributions to us. Our failure to repurchase surrendered notes at a time when such repurchase is required by the indenture or to pay any cash payable at maturity or on future conversions of the notes as required by the indenture would constitute a default under the indenture and would permit holders of the notes to accelerate our obligations under the notes. Such a default would also cause an event of default under our revolving credit facility and may also lead to a default under the agreements governing our other existing or future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay such indebtedness and repurchase the notes or make cash payments upon conversions thereof. In addition, the occurrence of a fundamental change would cause an event of default under our revolving credit facility. Our 2015 Notes contain substantially similar repurchase and conversion features. Accordingly, our obligation to repurchase the 2015 Notes or to pay cash upon conversion or the maturity of the 3.00% Convertible Senior Notes due 2015 could adversely affect our liquidity.

Table of Contents

RTI International Metals, Inc. s operations are conducted through, and substantially all of its consolidated assets are held by, its subsidiaries and only six subsidiaries will guarantee the notes.

The notes are obligations of RTI International Metals, Inc. and will be guaranteed by six RTI International Metals, Inc. subsidiaries, which are the only subsidiaries that guarantee our existing credit facility. See Description of Certain Indebtedness. RTI International Metals, Inc. is a holding company and conducts all of its business operations through its subsidiaries. Substantially all of RTI International Metals, Inc. s consolidated assets are held by its subsidiaries. Accordingly, RTI International Metals, Inc. s ability to service its debt, including the notes, depends on the results of operations of its subsidiaries and upon the ability of such subsidiaries to provide it with cash, whether in the form of dividends, loans or otherwise, to pay amounts due on its obligations, including the notes. RTI International Metals, Inc. s subsidiaries are separate and distinct legal entities and other than RMI Titanium Company, Extrusion Technology Corporation of America, RTI Finance Corp., RTI Martinsville, Inc., RTI Remmele Medical, Inc. and RTI Remmele Engineering, Inc., no subsidiary will have any obligation, contingent or otherwise, to make payments on the notes or to make any funds available for that purpose. As of December 31, 2012, our six subsidiary guarantors held approximately 70.5% of our consolidated assets and represented approximately 68.1% of our consolidated net sales. For the year ended December 31, 2012, our subsidiary guarantors collectively represented 49.5% of our consolidated operating income. Additional financial information regarding RTI on an unconsolidated basis, the subsidiary guarantors and our subsidiaries that are not guarantor subsidiaries can be found in our Annual Report on Form 10-K filed on February 22, 2013.

In addition, dividends, loans or other distributions to RTI International Metals, Inc. from such subsidiaries may be subject to contractual and other restrictions and are subject to other business considerations.

A court could void a subsidiary guarantee of the notes under fraudulent transfer laws.

Although the subsidiary guarantees provided by our six subsidiary guarantors provide you with a direct claim against the assets of the applicable subsidiary guarantor, under the federal bankruptcy laws and comparable provisions of state fraudulent transfer laws, a subsidiary guarantee could be voided, or claims with respect to a subsidiary guarantee could be subordinated to all other debts of the applicable subsidiary guarantor. In addition, a bankruptcy court could void (i.e., cancel) any payments by the subsidiary guarantor pursuant to its subsidiary guarantee and require those payments to be returned to the subsidiary guarantor or to a fund for the benefit of the other creditors of the subsidiary guarantor.

The bankruptcy court might take these actions if it found, among other things, that when a subsidiary guarantor executed its subsidiary guarantee (or, in some jurisdictions, when it became obligated to make payments under its subsidiary guarantee):

such subsidiary guarantor received less than reasonably equivalent value or fair consideration for the incurrence of its subsidiary guarantee; and

such subsidiary guarantor:

was (or was rendered) insolvent by the incurrence of the subsidiary guarantee;

was engaged or about to engage in a business or transaction for which its assets constituted unreasonably small capital to carry on its business;

intended to incur, or believed that it would incur, obligations beyond its ability to pay as those obligations matured; or

was a defendant in an action for money damages, or had a judgment for money damages docketed against it and, in either case, after final judgment, the judgment was unsatisfied.

A bankruptcy court would likely find that a subsidiary guarantor received less than fair consideration or reasonably equivalent value for its subsidiary guarantee to the extent that it did not receive direct or indirect

Table of Contents

benefit from the issuance of the notes. A bankruptcy court could also void a subsidiary guarantee if it found that the subsidiary guarantor issued its subsidiary guarantee with actual intent to hinder, delay, or defraud creditors. Although courts in different jurisdictions measure solvency differently, in general, an entity would be deemed insolvent if the sum of its debts, including contingent and unliquidated debts, exceeds the fair value of its assets, or if the present fair saleable value of its assets is less than the amount that would be required to pay the expected liability on its debts, including contingent and unliquidated debts, as they become due.

We cannot predict what standard a court would apply in order to determine whether a subsidiary guarantor was insolvent as of the date it issued its subsidiary guarantee or whether, regardless of the method of valuation, a court would determine that the subsidiary guarantor was insolvent on that date, or whether a court would determine that the payments under the subsidiary guarantee constituted fraudulent transfers or conveyances on other grounds.

The indenture governing the notes contains a saving clause intended to limit each subsidiary guarantor's liability under its guarantee to the maximum amount that it could incur without causing the guarantee to be a fraudulent transfer under applicable law. There can be no assurance that this provision will be upheld as intended. In a recent case, the U.S. Bankruptcy Court in the Southern District of Florida found this kind of provision in that case to be ineffective, and held the subsidiary guarantees to be fraudulent transfers and voided them in their entirety.

If a subsidiary guarantee is deemed to be a fraudulent transfer, it could be voided altogether, or it could be subordinated to all other debts of the subsidiary guarantor. In such case, any payment by the subsidiary guarantor pursuant to its subsidiary guarantee could be required to be returned to the subsidiary guarantor or to a fund for the benefit of the creditors of the subsidiary guarantor. If a guarantee is voided or held unenforceable for any other reason, holders of the notes would cease to have a claim against the subsidiary guarantor based on the subsidiary guarantee and would be creditors only of us.

We may not have sufficient cash flow from our business to service our debt.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including our ability to make payments on the notes, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

The notes are not protected by restrictive covenants. We will continue to have the ability to incur debt after this offering; if we incur substantial additional debt, our higher level of debt may affect our ability to pay the principal of, and interest on, the notes and any cash portion of our conversion obligation with respect to the notes.

The indenture governing the notes does not restrict our ability to incur additional indebtedness or require us to maintain financial ratios or specified levels of net worth or liquidity. If we incur substantial additional indebtedness in the future, these higher levels of indebtedness may affect our ability to pay principal of and interest on the notes and any cash portion of our conversion obligations with respect to the notes, as well as our creditworthiness generally. In addition, the indenture governing the notes does not contain any operating covenants or restrictions on the payment of dividends, transactions with affiliates, incurrence of liens or the issuance or repurchase of securities by us or any of our subsidiaries.

Table of Contents

We are required to repurchase the notes only upon the occurrence of a set of events included in the indenture's definition of fundamental change, and that definition does not include all events or transactions that could adversely affect the trading price of the notes and our ability to make payments on the notes.

The term fundamental change is limited and does not include every event that might cause our creditworthiness or the trading price of the notes to decline. Our obligation to repurchase the notes upon a fundamental change may not preserve the value of the notes in the event of a highly leveraged transaction, reorganization, merger or similar transaction. We could engage in many types of transactions, such as acquisitions, refinancings or recapitalizations, which could substantially affect our capital structure, the value of the notes and our common stock and our ability to make payments on the notes, but that may not constitute a fundamental change that permits holders to require us to repurchase their notes. See Description of Notes Fundamental Change Permits Holders to Require Us to Repurchase Notes.

In addition, certain circumstances involving a significant change in the composition of our board, including in connection with a proxy contest where our board does not endorse a dissident slate of directors but approves them as continuing directors as defined under Description of the Notes Fundamental Change Permits Holders to Require Us to Repurchase Notes, may not constitute a fundamental change. In the event of any such significant change in the composition of our board where the board has approved the new directors as continuing directors, the holders may not have the right to require us to repurchase the notes and would not be entitled to an increase in the conversion rate upon conversion as described under Description of the Notes Conversion Rights Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change.

The conversion rate of the notes may not be adjusted for all dilutive events that may occur.

As described under Description of Notes Conversion Rights Conversion Rate Adjustments, we will adjust the conversion rate of the notes for certain events, including, among others, the issuance of stock or cash dividends on our common stock, the issuance of certain rights, options or warrants, the distribution of common stock, certain indebtedness or assets, certain subdivisions and combinations of our common stock and certain tender or exchange offers.

We will not adjust the conversion rate for other events, such as an issuance of common stock for cash, issuances under our current benefit plans or third party tender or exchange offers that may adversely affect the trading price of the notes or the market price of our common stock. If we engage in any of these types of transactions, the value of the number of shares of our common stock that determine the amount of cash and the number of shares of common stock, if any, into which the notes may be convertible may be diluted. An event that adversely affects the value of the notes, but does not result in an adjustment to the conversion rate, may occur.

The conditional conversion features of the notes, if triggered, may adversely affect our financial condition and operating results.

If the conditional conversion features of the notes are triggered, holders of notes will be entitled to convert the notes at any time during specified periods at their option. See Description of Notes Conversion Rights. If one or more holders elect to convert their notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock, we would be required to make cash payments to satisfy all or a portion of our conversion obligation based on the applicable conversion rate, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal amount of the notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

Table of Contents

Future sales or issuances of our common stock or equity-related securities in the public market could lower the market price for our common stock and adversely impact the trading price of the notes.

In the future, we may sell additional shares of our common stock or equity-related securities to raise capital. Sales of a substantial number of shares of our common stock after this offering, or the perception by the market that those sales could occur, could cause the market price of our common stock to decline or could make it more difficult for us to raise funds through the sale of equity in the future. Likewise, additional equity financings or other share issuances by us could adversely affect the market price of our common stock. We cannot be sure that we will not need or want to raise additional capital in the future. If we seek to raise additional capital, there can be no assurance that we will be able to do so on favorable terms or at all. In addition, any such financing could be significantly dilutive to our existing shareholders and result in the issuance of securities that have rights, preferences and privileges that are senior to those of our common stock.

A substantial number of shares of our common stock are reserved for issuance upon conversion of the notes as well as our 2015 Notes. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our common stock. The issuance and sale of substantial amounts of our common stock or equity-related securities, or the perception that such issuances and sales may occur, could adversely affect the trading price of the notes and the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities.

Holders of notes will not be entitled to any rights with respect to our common stock, but will be subject to all changes made with respect to them to the extent our conversion obligation includes shares of our common stock.

Holders of notes will not be entitled to any rights with respect to our common stock (including, without limitation, voting rights and rights to receive any dividends or other distributions on our common stock), but, to the extent our conversion obligation includes shares of our common stock, holders of notes will be subject to all changes affecting our common stock. For example, if an amendment is proposed to our current Articles of Incorporation or Code of Regulations requiring shareholder approval and the record date for determining the shareholders of record entitled to vote on the amendment occurs prior to the conversion date related to a holder's conversion of its notes (if we have elected to settle the relevant conversion by delivering solely shares of our common stock (other than cash in lieu of any fractional share)) or the last trading day of the relevant observation period (if we elect to pay and deliver, as the case may be, a combination of cash and shares of our common stock in respect of the relevant conversion), such holder will not be entitled to vote on the amendment, although, to the extent our conversion obligation includes shares of our common stock, such holder will nevertheless be subject to any changes affecting our common stock.

The conditional conversion feature of the notes could result in your receiving less than the value of the cash, shares of our common stock or combination thereof into which the notes would otherwise be convertible.

Prior to the close of business on the business day immediately preceding April 15, 2019, you may convert your notes only if specified conditions are met. If the specific conditions for conversion are not met, you will not be able to convert your notes until April 15, 2019, and you may not be able to receive the value of the cash, shares of our common stock or combination of cash and shares of our common stock, as applicable, into which the notes would otherwise be convertible, which could adversely impact the value of the notes.

You may have to wait a substantial period of time before receiving amounts due upon conversion of the notes and upon conversion of the notes, you may receive less valuable consideration than expected because the value of our common stock may decline after you exercise your conversion right.

Under the notes, a converting holder will be exposed to fluctuations in the value of our common stock during the period from the date such holder surrenders notes for conversion until the date we settle our conversion obligation.

Table of Contents

Upon conversion of the notes, we have the option to pay or deliver, as the case may be, cash, shares of our common stock, or a combination of cash and shares of our common stock. If we elect to satisfy our conversion obligation in cash or a combination of cash and shares of our common stock, the amount of consideration that you will receive upon conversion of your notes will be determined by reference to the volume weighted average prices of our common stock for each trading day in a 40-trading day observation period, and such consideration will be delivered on the third business day following the final trading day of such observation period. In certain circumstances, as described under Description of Notes Conversion Rights Settlement upon Conversion, you may have to wait up to six months after the conversion date before receiving the consideration due upon conversion. If the price of our common stock decreases during the applicable observation period, the value of cash, shares of our common stock or combination thereof you receive will be adversely affected. In addition, if the market price of our common stock at the end of such period is below the average of the volume weighted average prices of our common stock during such period, the value of shares of our common stock, if any, that you will receive in satisfaction of our conversion obligation will be less than the value used to determine the amount of consideration that you will receive.

If we elect to satisfy our conversion obligation solely in shares of our common stock upon conversion of the notes, we will be required to deliver the shares of our common stock, together with cash for any fractional share, on the third business day following the relevant conversion date. If the price of our common stock decreases following the conversion date, the value of the shares that you receive will be adversely affected and would be less than the conversion value of the notes on the conversion date.

Regulatory actions may adversely affect the trading price and liquidity of the notes.

We expect that many investors in, and potential purchasers of, the notes will employ, or seek to employ, a convertible arbitrage strategy with respect to the notes. Investors that employ a convertible arbitrage strategy with respect to convertible debt instruments typically implement that strategy by selling short the common stock underlying the convertible notes. As a result, any specific rules regulating short selling of securities or other governmental action that interferes with the ability of market participants to effect short sales in our common stock could adversely affect the ability of investors in, or potential purchasers of, the notes to conduct the convertible arbitrage strategy that we believe they will employ, or seek to employ, with respect to the notes. This could, in turn, adversely affect the trading price and liquidity of the notes.

The SEC and other regulatory and self-regulatory authorities have implemented various rules and may adopt additional rules in the future that may impact those engaging in short selling activity involving equity securities (including our common stock). In particular, Rule 201 of the SEC's Regulation SHO generally restricts short selling when the price of a covered security triggers a circuit breaker by falling 10% or more from the security's closing price as of the end of regular trading hours on the prior day. If this circuit breaker is triggered, short sale orders can be displayed or executed only if the order price is above the current national best bid, subject to certain limited exceptions. Because our common stock is a covered security, these Rule 201 restrictions, if triggered, may interfere with the ability of investors in, and potential purchasers of, the notes, to effect short sales in our common stock and conduct a convertible arbitrage strategy that they may employ, or seek to employ, with respect to the notes.

The SEC also approved a pilot program allowing securities exchanges and the Financial Industry Regulatory Authority, Inc. (FINRA) to halt trading in securities included in the S&P 500 Index, Russell 1000 Index and over 300 exchange traded funds if the price of any such security moves 10% or more from a sale price in a five-minute period (the single stock circuit breaker program). Beginning on August 8, 2011, the single stock circuit breaker program was expanded to include all other National Market System stocks, and imposes a trading halt in these additional stocks in the event of any price movement of 30% or 50% (or more), depending upon the trading price of the stock. Beginning on November 23, 2011, the single stock circuit breaker program was amended to exclude all rights and warrants from the trading halt. The single stock circuit breaker program will expire on the earlier of the initial date of operations of the Limit Up/Limit Down plan, as defined below, or February 4, 2014.

Table of Contents

FINRA recently issued a regulatory notice regarding the implementation of the Limit Up/Limit Down plan, phase one of which began on April 8, 2013, which establishes a tracking pause mechanism restricting trades in applicable stocks (including our common stock) from occurring outside specified price bands based on a subject stock's reference price. If bid or offer quotations are at the far limit of the price band for more than 15 seconds, trading in that security will be subject to a five-minute trading pause. The Limit Up-Limit Down plan went into effect on a one-year pilot basis on April 8, 2013.

The second initiative recently changed existing stock exchange and FINRA rules that establish a market-wide circuit breaker system which began April 8, 2013. The previous market-wide circuit breaker system provided for specified market-wide halts in trading of stock for certain periods following specified market declines. The changes lowered the percentage-decline thresholds for triggering a market-wide trading halt and shortened the amount of time that trading is halted. Market declines under the new system are measured by reference to the S&P 500 Index rather than the Dow Jones Industrial Average, and the trigger thresholds will be calculated daily rather than quarterly.

The restrictions on trading imposed by the single stock circuit breaker program, the market-wide circuit breaker system and the Limit Up/Limit Down plan may interfere with the ability of investors in, and potential purchasers of, the notes to effect short sales in our common stock and conduct a convertible arbitrage strategy.

The enactment of the Dodd-Frank Act on July 21, 2010 also introduces regulatory uncertainty that may impact trading activities relevant to the notes. This new legislation will require many over-the-counter swaps and security-based swaps to be centrally cleared through regulated clearinghouses and traded on exchanges or comparable trading facilities. In addition, swap dealers, security-based swap dealers, major swap participants and major security-based swap participants will be required to comply with margin and capital requirements as well as public reporting requirements to provide transaction and pricing data on both cleared and uncleared swaps. These requirements could adversely affect the ability of investors in, or potential purchasers of, the notes to maintain a convertible arbitrage strategy with respect to the notes (including increasing the costs incurred by such investors in implementing such strategy). This could, in turn, adversely affect the trading price and liquidity of the notes. The implementation dates for these requirements are subject to regulatory action and at this time cannot be determined with certainty. We cannot predict how this legislation will ultimately be implemented by the SEC and other regulators or the magnitude of the effect that this legislation will have on the trading price or liquidity of the notes.

Although the direction and magnitude of the effect that the amendments to Regulation SHO, FINRA and securities exchange rule changes and/or implementation of the Dodd-Frank Act may have on the trading price and the liquidity of the notes will depend on a variety of factors, many of which cannot be determined at this time, past regulatory actions have had a significant impact on the trading prices and liquidity of convertible debt instruments. For example, in September 2008, the SEC issued emergency orders generally prohibiting short sales of the common stock of certain financial services companies while Congress worked to provide a comprehensive legislative plan to stabilize the credit and capital markets. The orders made the convertible arbitrage strategy that many convertible debt investors employ difficult to execute and adversely affected both the liquidity and trading price of convertible debt instruments issued by many of the financial services companies subject to the prohibition. Any governmental action that similarly restricts the ability of investors in, or potential purchasers of, the notes to effect short sales of our common stock, including the amendments to Regulation SHO, FINRA and exchange rule changes and the implementation of the Dodd-Frank Act, could similarly adversely affect the trading price and the liquidity of the notes.

We cannot assure you that an active trading market will develop for the notes.

Prior to this offering, there has been no trading market for the notes, and we do not intend to apply for the listing of the notes on any securities exchange or to arrange for the quotation of the notes on any interdealer quotation system. We have been informed by the underwriters that they intend to make a market in the notes after

Table of Contents

the offering is completed. However, the underwriters may cease their market-making at any time, for any reason or for no reason, without notice. If the underwriters cease to act as the market makers for the notes, we cannot assure you another firm or person will make a market in the notes. In addition, the liquidity of the trading market in the notes, and the market price quoted for the notes, may be adversely affected by changes in the overall market for this type of security, the number of holders of the notes, the interest of securities dealers in making a market in the notes, our financial performance or prospects or the prospects for companies in our industry generally and other factors. As a result, we cannot assure you that an active trading market will develop for the notes. If an active trading market does not develop or is not maintained, the market price and liquidity of the notes may be adversely affected. In that case you may not be able to sell your notes at a particular time or you may not be able to sell your notes at a favorable price.

Any adverse rating of the notes may cause their trading price to fall.

We do not intend to seek a rating on the notes. However, if a rating service were to rate the notes and if such rating service were to lower its rating on the notes below the rating initially assigned to the notes or otherwise announces its intention to put the notes on credit watch, the trading price of the notes could decline.

The additional shares that may be added to the conversion rate in connection with a make-whole fundamental change may not adequately compensate you for the lost option value of your notes that results from the occurrence of such make-whole fundamental change.

If you convert notes in connection with a make-whole fundamental change, we may be required to increase the conversion rate applicable to your notes, as described under Description of Notes Adjustment to Shares Delivered upon Conversion upon a Make-whole Fundamental Change. While these increases in the applicable conversion rate are designed to compensate you for the lost value of the option embedded in your notes as a result of a make-whole fundamental change, such increases are only an approximation of such lost value and may not adequately compensate you for such loss. Our obligation to increase the conversion rate could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness of economic remedies.

You should consider the U.S. federal income tax consequences of owning and converting the notes.

The U.S. federal income tax treatment of the conversion of the notes into cash and shares of our common stock, if any, is not entirely certain. You are urged to consult your tax advisors with respect to the U.S. federal income tax consequences resulting from the conversion of notes into a combination of cash and shares of our common stock, if any. A discussion of the U.S. federal income tax consequences of ownership and disposition of the notes is contained in this prospectus supplement under the heading Certain U.S. Federal Income Tax Considerations.

You may have to pay taxes with respect to conversion rate adjustments even if you do not receive an actual distribution.

The conversion rate of the notes is subject to adjustment for certain events arising from stock splits and combinations, stock dividends, cash dividends and certain other actions by us that modify our capital structure. If, for example, the conversion rate is adjusted as a result of a distribution that is taxable to holders of our common stock, such as a cash dividend, you may be required to include an amount in income for U.S. federal income tax purposes, notwithstanding the fact that you do not receive an actual distribution. In addition, holders of the notes may, in certain circumstances, be deemed to have received a distribution subject to U.S. federal withholding taxes (including backup withholding taxes or withholding taxes for payments to foreign persons). If we pay withholding taxes on behalf of a holder, we may, at our option, set off such payments against payments of cash and deliveries of shares of our common stock, if any, on the notes. See the discussions under the headings Certain U.S. Federal Income Tax Considerations.

Table of Contents

Conversion of the notes may dilute the ownership interest of existing shareholders, including holders who have previously converted their notes.

The conversion of some or all of the notes may dilute the ownership interests of existing shareholders. Any sales in the public market of any of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the conversion of our existing 2015 Notes or the anticipated conversion of the notes into shares of our common stock or a combination of cash and shares of our common stock could depress the price of our common stock.

The fundamental change purchase feature of the notes may delay or prevent an otherwise beneficial takeover attempt of our company.

The terms of the notes will require us to purchase the notes for cash upon the occurrence of a fundamental change. A takeover of our company may trigger the requirement that we purchase the notes. In addition, the indenture governing the notes prohibits us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the notes. These and other provisions may have the effect of delaying or preventing a takeover of our company that would otherwise be beneficial to investors.

The accounting method for the notes could have a material effect on our reported financial results.

Under Accounting Standards Codification Topic 470-20 (ASC 470-20), an entity must separately account for the liability and equity components of convertible debt instruments (such as the notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the notes is that the equity component would be included in the additional paid-in capital section of shareholders' equity on our consolidated balance sheet and the value of the equity component would be treated as original issue discount for purposes of accounting for the debt component of the notes. As a result, we will be required to record a greater amount of non-cash interest expense as a result of the amortization of the discounted carrying value of the notes to their face amount over the term of the notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's coupon interest, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the notes.

Risks Relating to Our Common Stock

The price of our common stock has fluctuated and may continue to fluctuate, which may affect the price at which you could sell the shares of our common stock, if any, that you receive upon conversion, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock.

The market price and trading volume of our common stock have been and may continue to be subject to significant fluctuations due not only to general stock market conditions, but also to a change in sentiment in the market regarding our industry operations, business prospects or liquidity. During the period for the 12 months ended March 31, 2013, our common stock has fluctuated from a high of \$32.43 per share to a low of \$20.29 per share. In addition to the risk factors discussed in this prospectus supplement and in the accompanying prospectus, the price and volume volatility of our common stock may be affected by:

operating results that vary from expectations of management, securities analysts and investors;

developments in our business or in our industry generally;

regulatory changes affecting our industry generally or our business and operations;

the operating and securities price performance of companies that investors consider to be comparable to us;

Table of Contents

announcements of strategic developments, acquisitions and other material events by us, our customers or our competitors; and

changes in global financial and economic markets and general market conditions, such as interest or foreign exchange rates, commodity and equity prices, availability of credit, asset valuations, and volatility.

Any volatility of or a significant decrease in the market price of our common stock could also negatively affect our ability to make acquisitions using common stock. Further, if we were to be the object of securities class action litigation as a result of volatility in our common stock price or for other reasons, it could result in substantial costs and diversion of our management's attention and resources, which could negatively affect our financial results. In addition, in recent years, the global equity markets have experienced substantial price and volume fluctuations. This volatility has had a significant impact on the market price of securities issued by many companies including us and the companies in our industry. The price of our common stock could fluctuate based upon factors that have little or nothing to do with our company, and these fluctuations could materially reduce our stock price and your ability to sell your shares.

Future sales of our common stock in the public market or the issuance of securities senior to our common stock could adversely affect the trading price of our common stock and our ability to raise funds in new stock offerings.

Sales by us or our shareholders of a substantial number of shares of our common stock in the public markets following this offering, or the perception that these sales might occur, could cause the market price of our common stock to decline or could impair our ability to raise capital through a future sale of, or pay for acquisitions using, our equity securities. We and our executive officers and directors will agree, with limited exceptions, for a period of 90 days after the date of this prospectus supplement, that we and they will not, without the prior written consent of the representatives on behalf of the underwriters, directly or indirectly, offer to sell, sell or otherwise dispose of any shares of our common stock. All of the shares, if any, issued upon conversion of the notes sold in this offering will be freely transferable, except for any shares sold to our affiliates, as that term is defined in Rule 144 under the Securities Act.

We may issue common stock or equity securities senior to our common stock in the future for a number of reasons, including to finance our operations, growth plans or acquisitions, to adjust our ratio of debt-to-equity, to satisfy our obligations upon the exercise of options or for other reasons. We cannot predict the effect, if any, that future sales or issuance of shares of our common stock or other equity securities, or the availability of shares of common stock or such other equity securities for future sale or issuance, will have on the trading price of our common stock.

Certain provisions of our Articles of Incorporation and Code of Regulations could discourage acquisitions, dilute shareholders and adversely affect the price of our common stock.

Certain provisions of our current Articles of Incorporation, Code of Regulations, credit facility and Ohio law could discourage potential acquisition proposals and could delay or prevent a change in control. We are authorized to issue up to five million shares of preferred stock, the relative rights and preferences of which may be fixed by our board of directors, subject to the provisions of our Articles of Incorporation, without shareholder approval. Although we have no present plans to issue any shares of preferred stock, the future issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control or the payment of dividends on our common stock. The issuance of preferred stock could also adversely affect the voting power of the holders of common stock, including the loss of voting control to others. The provisions that discourage potential acquisitions of us and adversely affect the voting power of the holders of common stock may adversely affect the price of our common stock.

Table of Contents

We do not intend to pay dividends on our common stock for the foreseeable future.

We have never declared or paid cash dividends on our common stock. In addition, we must comply with the covenants in our revolving credit facility if we want to pay cash dividends. We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and such other factors as our board of directors deems relevant.

Risks Relating to our Business

We are subject to risks associated with global economic and political uncertainties.

Like other companies, we are susceptible to macroeconomic downturns in the United States and abroad that may affect our performance and the performance of our customers and suppliers. Further, the lingering effects of the global financial crisis that began in 2008 may have an impact on our business and financial condition in ways that we currently cannot predict. That crisis and related turmoil in the global financial system has had and may continue to have an impact on our business and our financial condition. In addition to the impact that the global financial crisis has already had, we may face significant financial and operational challenges if conditions in the financial markets do not improve or if they worsen. For example, an extension of the credit crisis to other industries (for example, the availability of financing for the purchase of commercial aircraft) could adversely impact overall demand for our products, which could have a negative effect on our revenues.

In addition, our ability to access the traditional bank and capital markets may be severely restricted, which could have an adverse impact on our ability to react to changing economic and business conditions. In addition, we are subject to various domestic and international risks and uncertainties, including changing social conditions and uncertainties relating to the current and future political climate. Changes in policy resulting from the current political environment, including fluctuations in global currencies, could have an adverse impact on the financial condition and the level of business activity of the defense industry or other market segments in which we participate. This may reduce our customers' demand for our products and/or depress pricing of those products, resulting in a material adverse impact on our business, prospects, results of operations, revenues, and cash flows.

A substantial amount of revenue is derived from the commercial aerospace and defense industries and a limited number of customers.

Nearly 78% of our current annual revenue is derived from the commercial aerospace and defense industries. Of this amount, Boeing, through multiple contracts with various company subsidiaries covering varying periods, accounted for approximately 12% of our consolidated net sales in 2012. Within those industries are a relatively small number of consumers of titanium products. Those industries have historically been highly cyclical, resulting in the potential for sudden and dramatic changes in expected production and spending that, as a partner in the supply chain, can negatively impact our operational plans and, ultimately, the demand for our products and services.

In addition, many of our customers are dependent on the commercial airline industry which has shown to be subject to significant economic and political challenges due to threats or acts of terrorism, rising or volatile fuel costs, pandemics, or other outbreaks of infectious diseases, aggressive competition, global economic slowdown, and other factors. Further, new aerospace and defense platforms under which we have a contract to supply our products may be subject to production delays which affect the timing of the delivery of our products for such platforms. Any one or combination of these factors could occur suddenly and result in a reduction or cancellation in orders of new airplanes and parts which could have an adverse impact on our business. Neither we nor our customers may be able to project or plan in a timely manner for the impact of these events.

Table of Contents

Continued U.S. budget deficits could result in significant defense spending cuts and/or reductions in defense programs, including the JSF program.

Some of our customers are particularly sensitive to the level of government spending on defense-related products. Government programs are dependent upon the continued availability of appropriations, which are approved on an annual basis. Sudden reductions in defense spending could occur due to economic or political changes, such as the impact of sequestration, which could result in a downturn in demand for defense-related titanium products. Further, changes to existing defense procurement laws and regulations, such as the domestic preference for specialty metals, could adversely affect our results of operations.

A significant amount of our current capital spending and our forecasted revenue is associated with the JSF program. Continued record U.S. Federal budget deficits could result in significant pressure to reduce the annual defense budget, potentially including delays or cancellations of major defense programs. Significant delays in the ramp up of the JSF program, or a reduction in the total number of aircraft produced, could have a material adverse impact on our results of operations, financial position, and cash flows.

A significant amount of our future revenue is based on long-term contracts for new aircraft programs.

We have signed several long-term contracts in recent years to produce titanium mill products and complex engineered assemblies for several new aircraft programs, including the Boeing 787, the JSF and the Airbus family of aircraft, including the A380, the A350XWB and the A400M military transport. In order to meet the delivery requirements of these contracts, we have invested in significant capital expansion projects. Because of the global economic slowdown and production problems experienced by many of our customers, we have experienced significant delays in these programs. Further delays due to the problems associated with the Boeing 787's lithium-ion batteries or for other reasons, program cancellations, or a loss of one or more customers associated with these programs, could have a material adverse impact on our business, prospects, results of operations, revenues, cash flows, and financial standing.

Integrating acquisitions may be more difficult, costly or time-consuming than expected, which may adversely affect our results and affect adversely the value of our stock following the merger.

We have entered into acquisitions that we believe will be beneficial to RTI and its shareholders. The success of the acquisitions will depend, in part, on our ability to realize the anticipated benefits from integrating the businesses. To realize these anticipated benefits, we must successfully integrate the businesses in an efficient and effective manner. If we are not able to achieve these objectives within the anticipated time frames, or at all, the anticipated benefits and cost savings of the acquisitions may not be realized fully, or at all, or may take longer to realize than expected, and our results of operations, financial position, and cash flow may be adversely affected.

Specifically, issues that must be addressed in integrating the acquisitions into our operations in order to realize the anticipated benefits of the acquisitions include, among others:

integrating and optimizing the utilization of the properties and equipment of RTI and acquired businesses;

integrating the sales and information technology systems of RTI and the acquired businesses; and

conforming standards, controls, procedures and policies, business cultures and compensation structures between the companies. Integration efforts will also divert management attention and resources. An inability to realize the full extent of the anticipated benefits of the acquisition, as well as any delays encountered in the integration process, could have an adverse effect upon our results of operations, financial position, and cash flow.

In addition, the actual integrations may result in additional and unforeseen expenses, and the anticipated benefits of the integrations may not be realized. Actual synergies, if achieved at all, may be lower than those

Table of Contents

expected and may take longer to achieve than anticipated. If we are not able to adequately address these challenges, we may be unable to successfully integrate the operations of the acquired businesses into ours, or to realize the anticipated benefits of the acquisitions.

The carrying value of goodwill and other intangible assets may not be recoverable.

As of December 31, 2012, we had goodwill of \$137.3 million and other intangible assets of \$56.5 million. Goodwill and other intangible assets are recorded at fair value on the date of acquisition. In accordance with applicable accounting guidance, we review such assets at least annually for impairment. Impairment may result from, among other things, deterioration in performance, adverse market conditions, adverse changes in applicable laws or regulations, and a variety of other factors. The amount of any impairment is expensed immediately through the Consolidated Statement of Operations. Any future goodwill or other intangible asset impairment could have a material adverse effect on our results of operations.

We are dependent on services that are subject to price and availability fluctuations.

We often depend on third parties to provide outside material processing services that may be critical to the manufacture of our products. Purchase prices and availability of these services are subject to volatility. At any given time, we may be unable to obtain these critical services on a timely basis, at acceptable prices, or on other acceptable terms, if at all. Further, if an outside processor is unable to produce to required specifications, our additional cost to cure may negatively impact our margins.

If we are unable to protect our data and process control systems against data corruption, cyber-based attacks, or network security breaches, we could experience disruption to our operations, the compromise or corruption of confidential information, and/or damage to our reputation, relationship with customers, or physical assets, all of which could negatively impact our financial results.

We have in place a number of systems, processes, and practices designed to protect against intentional or unintentional misappropriation or corruption of our systems and information or disruption of our operations due to a cyber incident. Despite such efforts, we could be subject to breaches of security systems which may result in unauthorized access, misappropriation, corruption, or disruption of the information we are trying to protect. Security breaches of our data or process control systems, including physical or electronic break-ins, computer viruses, attacks by hackers or similar breaches, can create system disruptions, shutdowns, or unauthorized disclosure of confidential information. If we are unable to prevent such security or privacy breaches, our operations could be disrupted or we may suffer loss of reputation, financial loss, property damage, and other regulatory penalties because of lost or misappropriated information. Furthermore, our customers are increasingly imposing more stringent contractual obligations on us relating to our information security protections. If we are unable to maintain protections and processes at a level commensurate with that required by our large customers, it could negatively affect our relationships with those customers and harm our business.

Fluctuations in our income tax obligations and effective income tax rate may result in volatility of our earnings and stock price.

We are subject to income taxes in many U.S. and certain foreign jurisdictions. Our effective income tax rate (calculated by application of generally accepted accounting principles in the United States) in a given financial statement period may be materially impacted by changes in the jurisdictional mix and level of earnings in the various jurisdictions in which we are subject to income taxes. As a result, there could be ongoing variability period to period in our income tax rates and reported net income.

Table of Contents

We may be affected by our ability to successfully expand our operations in a timely and cost effective manner.

In connection with several of our long-term commercial contracts, we have undertaken several major capital expansion projects which are currently estimated to continue through 2013. Our inability to successfully complete the construction of these facilities in a timely and cost-effective manner, or at all, could have a material adverse effect on our business, financial condition and results of operations. Further, our undertaking of these significant initiatives places a significant demand on management, financial, and operational resources. Our success in these projects will depend upon the ability of key financial and operational management to ensure the necessary internal and external resources are in place to properly complete and operate these facilities.

The demand for our products and services may be adversely affected by demand for our customers' products and services.

Our business is substantially derived from titanium mill products and fabricated metal parts, which are primarily used by our customers as components in the manufacture of their products. The ability or inability to meet our financial expectations could be directly impacted by our customers' abilities or inability to meet their own financial expectations. A continued downturn in demand for our customers' products and services could occur for reasons beyond their control such as unforeseen spending constraints, competitive pressures, rising prices, the inability to contain costs, and other domestic as well as global economic, environmental or political factors. A continued slowdown in demand by, or complete loss of business from, these customers could have a material impact on our results of operations and financial position, including, but not limited to, impairment of goodwill and long-lived assets, which could be material.

We may be subject to competitive pressures.

The titanium metals industry is highly-competitive on a worldwide basis. Our competitors are located primarily in the U.S., Japan, Russia, Europe, and China. Our Russian competitor, in particular, has significantly greater capacity than us and others in our industry. Additionally, our industry has recently seen rapid consolidation, including the PCP acquisition of Titanium Metals Corp., Synchronous Aerospace Group and Primus International, Inc. (among other acquisitions) and the ATI acquisition of Ladish Co., Inc. Not only do we face competition for a limited number of customers with other producers of titanium products, but we also must compete with producers of other generally less expensive materials of construction including stainless steel, nickel-based high temperature and corrosion resistant alloys, and composites.

Our competitors could experience more favorable operating conditions than us including lower raw materials costs, more favorable labor agreements, or other factors which could provide them with competitive cost advantages in their ability to provide goods and services. Changes in costs or other factors related to the production and supply of titanium mill products compared to costs or other factors related to the production and supply of other types of materials of construction may negatively impact our business and the industry as a whole. New competitive forces unknown to us today could also emerge which could have an adverse impact on our financial performance. Our foreign competitors in particular may have the ability to offer goods and services to our customers at more favorable prices due to advantageous economic, environmental, political, or other factors.

We may experience a lack of supply of raw materials at costs that provide us with acceptable margin levels.

The raw materials required for the production of titanium mill products (primarily titanium sponge and scrap) are acquired from a number of domestic and foreign suppliers. Although we have long-term contracts in place for the procurement of certain amounts of raw material, we cannot guarantee that our suppliers can fulfill their contractual obligations. Our suppliers may be adversely impacted by events within or outside of their control that may adversely affect our business operations. We cannot guarantee that we will be able to obtain adequate amounts of raw materials from other suppliers in the event that our primary suppliers are unable to meet our needs. We may experience an increase in prices for raw materials which could have a negative impact on our

Table of Contents

profit margins if we are unable to adequately increase product pricing, and we may not be able to project the impact that an increase in costs may cause in a timely manner. We may be contractually obligated to supply products to our customers at price levels that do not result in our expected margins due to unanticipated increases in the costs of raw materials. We may experience dramatic increases in demand and we cannot guarantee that we will be able to obtain adequate levels of raw materials at prices that are within acceptable cost parameters in order to fulfill that demand.

We are subject to changes in product pricing.

The titanium industry is highly cyclical. Consequently, excess supply and competition may periodically result in fluctuations in the prices at which we are able to sell certain products. Price reductions may have a negative impact on our operating results. In addition, our ability to implement price increases is dependent on market conditions, often beyond our control. Given the long manufacturing lead times for certain products, the realization of financial benefits from increased prices may be delayed.

We may experience a shortage in the supply of energy or an increase in energy costs to operate our plants.

We own twenty-six natural gas wells which provide some but not all of the non-electrical energy required by our Niles, Ohio operations. Because our operations are reliant on energy sources from outside suppliers, we may experience significant increases in electricity and natural gas prices, unavailability of electrical power, natural gas, or other resources due to natural disasters, interruptions in energy supplies due to equipment failure or other causes, or the inability to extend expiring energy supply contracts on favorable economic terms.

We may not be able to recover the carrying value of our long-lived assets, which could require us to record asset impairment charges.

As of December 31, 2012, we had net property, plant, and equipment of \$376.0 million. We operate in a highly competitive and highly cyclical industry. In addition, we have invested heavily in new machinery and facilities in order to win new long-term supply agreements related to next-generation aircraft such as the Boeing 787, the Airbus family of commercial aircraft, and the JSF program. If we were unable to realize the benefits under these agreements, for whatever reason, we could be required to record material asset and asset related impairment charges in future periods which could adversely affect our results of operations.

Many of our products must be manufactured to stringent quality standards and are used in critical aircraft components and medical devices.

Given the critical nature of many of the end uses for our products, including specifically their use in critical rotating parts of gas turbine engines and their use in medical devices, a quality issue could have a material adverse impact on our reputation in the marketplace. We maintain product liability insurance as well as a \$500 million aircraft liability policy (which includes \$125 million aircraft grounding coverage); however, should a quality or warranty claim exceed this coverage, or should our coverage be denied, such liability could have a material adverse impact on Consolidated Financial Statements.

Healthcare Legislation may impact our business.

In March 2010, comprehensive health care reform legislation under the Patient Protection and Affordable Care Act and Health Care Education and Affordability Reconciliation Act (the Act) was passed and signed into law. Among other things, the Act includes guaranteed coverage requirements, eliminates pre-existing condition exclusions and annual and lifetime maximum limits, restricts the extent to which policies can be rescinded, and imposes new and significant taxes on health insurers and health care benefits. Provisions of the Act become effective at various dates over the next several years. The Department of Health and Human Services, the National Association of Insurance Commissioners, the Department of Labor and the Treasury Department have

Table of Contents

issued and are continuing to issue the necessary enabling regulations and guidance with respect to the Act. Due to the breadth and complexity of the Act, the lack of implementing regulations and interpretive guidance, and the phased-in nature of the implementation, it is difficult to predict the overall impact of the Act on our business. Depending on how and when the provisions of the Act are implemented, our results of operations, financial position and cash flows could be materially adversely affected.

Our business could be harmed by strikes or work stoppages.

Approximately 354 hourly, clerical and technical employees at our Niles, Ohio facility are represented by the United Steelworkers of America. Our current labor agreement with this union expires June 30, 2018. Approximately 155 hourly employees at our RTI Tradco facility in Washington, Missouri are represented by the International Association of Machinists and Aerospace Workers. Our current labor agreement with this union was approved on February 15, 2011, and expires February 19, 2015.

We cannot be certain that we will be able to negotiate new bargaining agreements upon expiration of the existing agreements on the same or more favorable terms as the current agreements, or at all, without production interruptions caused by a labor stoppage. If a strike or work stoppage were to occur in connection with the negotiation of a new collective bargaining agreement, or as a result of a dispute under our collective bargaining agreements with the labor unions, our business, financial condition, and results of operations could be materially adversely affected.

Our business is subject to the risks of international operations.

We operate subsidiaries and conduct business with suppliers and customers in foreign countries which exposes us to risks associated with international business activities. We could be significantly impacted by those risks, which include the potential for volatile economic and labor conditions, political instability, expropriation, and changes in taxes, tariffs, and other regulatory costs. We are also exposed to and can be adversely affected by fluctuations in the exchange rate of the U.S. Dollar against other foreign currencies, particularly the Canadian Dollar, the Euro, and the British Pound. Although we are operating primarily in countries with relatively stable economic and political climates, there can be no assurance that our business will not be adversely affected by those risks inherent to international operations.

Our success depends largely on our ability to attract and retain key personnel.

Much of our future success depends on the continued service and availability of skilled personnel, including members of our executive team, management, materials engineers and other technical specialists, and staff positions. The loss of key personnel could adversely affect our ability to perform until suitable replacements are found. There can be no assurance that we will be able to continue to successfully attract and retain key personnel.

The demand for our products and services may be affected by factors outside of our control.

War, terrorism, natural disasters, and public health issues including pandemics, whether in the U.S. or abroad, have caused and could cause damage or disruption to international commerce by creating economic and political uncertainties that may have a negative impact on the global economy as a whole. Our business operations, as well as our suppliers and customers business operations, are subject to interruption by those factors as well as other events beyond our control such as governmental regulations, fire, power shortages, and others. Although it is impossible to predict the occurrences or consequences of any such events, they could result in a decrease in demand for our products, make it difficult or impossible for us to deliver products to our customers or to receive materials from our suppliers, and create delays and inefficiencies in our supply chain. Our operating results and financial condition may be adversely affected by these events.

Table of Contents

We may be affected by our ability or inability to obtain financing.

Our ability to access the traditional bank or capital markets in the future for additional financing, if needed, and our future financial performance could be influenced by our ability to meet current covenant requirements associated with our existing credit agreement, our credit rating (if any), or other factors.

We are subject to, and could incur, substantial costs and liabilities under environmental, health, and safety laws.

We own and/or operate a number of manufacturing and other facilities. Our operations and properties are subject to various laws and regulations relating to the protection of the environment and health and safety matters, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, and the cleanup of contaminated sites. Some environmental laws can impose liability for all of the costs of a contaminated site without regard to fault or the legality of the original conduct. We could incur substantial costs, including fines, penalties, civil and criminal sanctions, investigation and cleanup costs, natural resource damages and third-party claims for property damage or personal injury, as a result of violations of or liabilities under environmental laws and regulations or the environmental permits required for our operations. Many of our properties have a history of industrial operations, including the use and storage of hazardous materials, and we are involved in remedial actions relating to some of our current and former properties and, along with other responsible parties, third-party sites. We have established reserves for such matters where appropriate. The ultimate costs of cleanup, and our share of such costs, however, are difficult to accurately predict and could exceed current reserves. We also could incur significant additional costs at these or other sites if additional contamination is discovered, additional cleanup obligations are imposed and/or the participation or financial viability of other responsible parties changes in the future. In addition, while the cost of complying with environmental laws and regulations has not had a material adverse impact on our operations in the past, such laws and regulations are subject to frequent modifications and revisions, and more stringent compliance requirements, or more stringent interpretation or enforcement of existing requirements, may be imposed in the future on us or the industries in which we operate. As a result, we could incur significant additional costs complying with environmental laws and regulations in the future.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES**

The table below sets forth our ratio of earnings to fixed charges on a historical basis for the periods indicated.

	December 31, 2012	December 31, 2011	December 31, 2010	December 31, 2009	December 31, 2008
Earnings:					
Pre-tax income (loss) from continuing operations	36,768	12,135	11,820	(96,056)	87,975
Fixed Charges	20,694	19,375	3,978	14,519	5,854
Amortization of capitalized interest	35				
Interest capitalized	(821)	(975)		(644)	(125)
Total earnings	56,676	30,535	15,798	(82,181)	93,704
Fixed Charges:					
Interest expense and amortization of debt discount/premium	17,926	16,796	2,111	12,347	4,206
Capitalized interest	821	975		644	125
Interest expense	18,747	17,771	2,111	12,991	4,331
Rent Expense	5,840	4,811	5,602	4,584	4,570
% of rent expense deemed to be interest	33.3%	33.3%	33.3%	33.3%	33.3%
Portion of rent expense deemed to be interest	1,947	1,604	1,867	1,528	1,523
Preferred stock dividend requirements					
Total fixed charges	20,694	19,375	3,978	14,519	5,854
Ratio of earnings to fixed charges	2.74	1.58	3.97	(5.66)	16.01
Deficiency				96,700	

S-34

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$339.0 million (or approximately \$389.9 million if the underwriters exercise their option to purchase additional notes in full), after deducting the underwriters' discount and the estimated offering expenses payable by us. We have committed to use a portion of the net proceeds from the sale of the notes to repurchase approximately \$115.6 million aggregate principal amount of our existing 2015 Notes through individually negotiated private repurchases. The remaining net proceeds from the sale of the notes will be used for working capital and general corporate purposes, including capital expenditures, as well as potential future acquisitions. Pending these uses, we intend to invest the net proceeds from this offering primarily in investment-grade, interest-bearing instruments.

If the underwriters exercise their overallotment option, we expect to use the net proceeds from the sale of the additional notes for general corporate purposes.

S-35

Table of Contents**CAPITALIZATION**

The following table sets forth our consolidated capitalization as of December 31, 2012 on:

an actual basis; and

an adjusted basis to reflect our receipt of approximately \$339.0 million of net proceeds from the issuance of notes in this offering, after deducting the underwriters' discounts and commissions and other offering expenses (assuming no exercise of the underwriters' over-allotment option). As adjusted amounts assume no repurchase of our existing 2015 Notes and do not otherwise reflect the anticipated use of proceeds from the offering of the notes.

This table should be read in conjunction with "Use of Proceeds" appearing elsewhere in this prospectus supplement, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the accompanying notes, appearing in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, which is incorporated by reference into this offering memorandum. See "Where You Can Find More Information About Us."

	As of December 31, 2012	
	Actual	As Adjusted
	(Dollars in thousands)	
Cash and cash equivalents	\$ 97,190	\$ 436,190
Debt:		
Long-term debt:		
3.00% Convertible Senior Notes due 2015(1)	196,644	196,644
1.625% Convertible Senior Notes due 2019(1)		350,000
Other long-term debt(2)	2,650	2,650
Total long-term debt	199,294	549,294
Shareholders' equity:		
Preferred stock, no par value; 5,000,000 shares authorized; no shares issued; no shares outstanding		
Common stock, \$0.01 par value; 50,000,000 shares authorized; 31,136,899 shares issued; 30,354,324 shares outstanding(3)	311	311
Additional paid-in capital	484,798	484,798
Treasury stock, at cost; 782,575 shares	(18,399)	(18,399)
Accumulated other comprehensive loss	(44,722)	(44,722)
Retained earnings	323,581	323,581
Total shareholders' equity	745,569	745,569
Total capitalization:	\$ 944,863	\$ 1,294,863

(1) In accordance with ASC 470-20, convertible debt that may be wholly or partially settled in cash is required to be separated into a liability and an equity component, such that interest expense reflects the issuer's non-convertible debt interest rate. Upon issuance, a debt discount will be recognized as a decrease in debt and an increase in equity. The debt component will accrete up to the principal amount through interest expense over the expected term of the debt. ASC 470-20 does not affect the actual amount that we are required to repay.

In accordance with the guidance in ASC 470-20, a debt discount of \$52.3 million was recorded upon the issuance of the 2015 Notes, which will be amortized through interest expense, using the Interest Method, over the life of the 2015 Notes. At December 31, 2012, the unamortized debt discount related to the 2015 Notes totaled \$33.4 million.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

With regard to the notes offered hereby, the amount shown in the table above in the As Adjusted column reflects the aggregate principal amount of the notes and does not reflect the debt discount that we will be required to recognize.

S-36

Table of Contents

- (2) Other long-term debt is composed of capital leases. Additionally, we maintain a \$150 million revolving credit facility under our Second Amended and Restated Credit Agreement (the Credit Agreement) which matures on May 23, 2017. We had no borrowings outstanding under the Credit Agreement during the year ended December 31, 2012. Borrowings under the Credit Agreement bear interest at our option at a rate equal to the London Interbank Offered Rate plus an applicable margin or a prime rate plus an applicable margin. In addition, we pay a facility fee in connection with the Credit Agreement. Both the applicable margin and the facility fee vary based upon our Consolidated Net Debt to Consolidated EBITDA, as defined in our Credit Agreement. Based upon our Consolidated EBITDA for the year ended December 31, 2012, we could borrow up to \$150 million under the Credit Agreement, which amount is unaffected by this offering.
- (3) The common stock shown as issued and outstanding in the table above is as of December 31, 2012, and excludes the shares of common stock reserved for issuance upon conversion of the 2015 Notes, and also excludes, as of December 31, 2012: (i) shares of common stock issuable upon the exercise of outstanding stock options and (ii) shares of common stock reserved for future issuance under our equity incentive and employee stock purchase plans.

S-37

Table of Contents**COMMON STOCK PRICE RANGE**

Our common stock is currently traded on the New York Stock Exchange under the symbol RTI. The high and low sales prices as reported on the New York Stock Exchange for the periods indicated are set forth in the table below.

	Price Range	
	High	Low
Fiscal year ending December 31, 2011		
First Quarter	\$ 31.71	\$ 24.91
Second Quarter	\$ 39.82	\$ 28.07
Third Quarter	\$ 38.96	\$ 21.55
Fourth Quarter	\$ 29.51	\$ 20.07
Fiscal year ended December 31, 2012		
First Quarter	\$ 27.60	\$ 21.62
Second Quarter	\$ 26.96	\$ 20.29
Third Quarter	\$ 26.00	\$ 21.12
Fourth Quarter	\$ 27.82	\$ 22.17
Fiscal year ending December 31, 2013		
First Quarter	\$ 32.43	\$ 27.40
Second Quarter (through April 11, 2013)	\$ 31.80	\$ 29.66

On April 11, 2013, the last reported sale price of the common stock on the New York Stock Exchange was \$30.16 per share. As of April 9, 2013, there were 569 common stock holders of record.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. In addition, we must comply with the covenants in our revolving credit facility if we want to pay cash dividends. We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and such other factors as our board of directors deems relevant.

Table of Contents

BUSINESS

The Company

We are a leading producer and global supplier of titanium mill products and manufacturer of fabricated titanium and specialty metal components for the national and international aerospace, defense, energy, medical device, industrial, and consumer markets. We are a successor to entities that have been operating in the titanium industry since 1951. We first became publicly traded on the New York Stock Exchange in 1990 under the name RMI Titanium Co., and were reorganized into a holding company structure in 1998 under the symbol RTI.

We conduct business in three segments: the Titanium Group, the Fabrication Group, and the Distribution Group.

The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by our customers for use in a variety of commercial aerospace, defense, and industrial applications. The titanium mill products consist of basic mill shapes including ingot, slab, bloom, billet, bar, plate and sheet. The Titanium Group also produces ferro titanium alloys for steel-making customers.

The Fabrication Group comprises companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve the commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets.

The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys.

Both the Fabrication Group and Distribution Group utilize the Titanium Group as their primary source of titanium mill products.

Industry Overview

Titanium's physical characteristics include a high strength-to-weight ratio, performance in extreme temperatures, and superior corrosion and erosion resistance. Relative to other metals, it is particularly effective in extremely harsh conditions. Given these properties, the scope of potential uses for titanium would be much broader than its current uses, but for its higher cost of production as compared to other metals. The first major commercial application of titanium occurred in the early 1950's when it was used in components in aircraft gas turbine engines. Subsequent applications were developed to use the material in other aerospace components and in airframe construction. Traditionally, a majority of the U.S. titanium industry's output has been used in aerospace applications. The cyclical nature of the aerospace and defense industries has been the principal cause of the fluctuations in the demand for titanium-related products. In more recent years, increasing quantities of the industry's output have been used in non-aerospace applications, such as the global chemical processing industry, oil and gas exploration and production, geothermal energy production, medical products, consumer products, and non-aerospace military applications such as heavy artillery and armoring.

The U.S. titanium industry's reported shipments were approximately 100 million pounds and 86 million pounds in 2011 and 2010, respectively, and are estimated to be approximately 90 million pounds in 2012. The decline in shipments during 2012 was due, in part, to destocking in the commercial aerospace industry, as companies worked through excess titanium inventory. Notwithstanding the current uncertainty in the defense industry related to the future of various defense programs, including the Lockheed Martin F-35 Joint Strike Fighter (JSF), demand for titanium is currently expected to increase in 2013 due to the ongoing aircraft build-rate increases expected from both Boeing and Airbus, as well as the continued ramp up of the Boeing 787 Dreamliner® program and continued development of the Airbus A350 program.

Table of Contents

Changes in titanium demand from commercial aerospace typically precede increases or decreases in aircraft production. Management believes that aircraft manufacturers and their subcontractors generally order titanium mill products six to eighteen months in advance of final aircraft production. This long lead time is due to the time it takes to produce a final assembly or part that is ready for installation in an airframe or jet engine.

The following is a summary of our proportional sales to each of the three primary markets we serve and a discussion of events occurring within those markets:

	2012	2011	2010
Commercial Aerospace	55%	58%	53%
Defense	23%	29%	30%
Energy, Medical, and Other	22%	13%	17%

Commercial Aerospace

Historically, growth in the commercial aerospace market was the result of increased world-wide air travel, which drove not only increased aircraft production but also larger aircraft with higher titanium content than previous models. More recently and into the future, growth in the commercial aerospace market is expected to be driven instead by changes in global demographics resulting in increased world-wide travel, coupled with the need for more fuel efficient aircraft due to higher energy costs and increased competition, as well as an expected replacement cycle of older aircraft. The leading manufacturers of commercial aircraft, Airbus and Boeing, reported an aggregate of 9,055 aircraft on order at the end of 2012, a 10% increase from the prior year. This increase was primarily driven by strong orders for the single aisle 737 MAX and A320neo aircraft. This order backlog represents approximately seven years of production, at current build rates, for both Airbus and Boeing. According to *Aerospace Market News*, reported deliveries of large commercial aircraft by Airbus and Boeing totaled:

	2012	2011	2010
Deliveries	1,189	1,011	972

Further, *The Airline Monitor* forecasts deliveries of large commercial jets for Airbus and Boeing of approximately:

	2015	2014	2013
Forecasted deliveries	1,380	1,360	1,270

Airbus is producing the largest commercial aircraft, the A380, and Boeing is accelerating deliveries of the new 787 Dreamliner®. Additionally, Airbus is continuing development of the A350XWB to compete with Boeing's 787 model. The A350XWB is currently expected to go into service in late 2014. All three of these aircraft use substantially more titanium per aircraft than on any other current commercial aircraft. As production of these aircraft increases, titanium demand is expected to grow to levels significantly above previous peak levels.

Defense

Military aircraft make extensive use of titanium and other specialty metals in their airframe structures and jet engines. These aircraft include U.S. fighters such as the F-22, F-18, F-15, and JSF, and European fighters such as the Mirage, Rafale, and Eurofighter-Typhoon. Military troop transports such as the C-17 and A400M also use significant quantities of these metals.

The JSF is set to become the fighter for the 21st century with production currently expected to exceed 3,000 aircraft over the life of the program. In 2007, we were awarded a long-term contract extension from Lockheed Martin to supply up to eight million pounds annually of titanium mill product to support full-rate production of

Table of Contents

the JSF through 2020. The products supplied by us include sheet, plate, billet, and ingot. Under the contract, we are currently supplying approximately two million pounds annually. While the JSF program is the subject of ongoing budget discussions due to continuing defense budget pressures and the potential sequestration of the defense budget, the current Secretary of Defense has affirmed his commitment to this program. Over the next several years, the program is expected to consume approximately two million pounds per year.

In addition to aerospace defense requirements, there are numerous titanium applications on ground vehicles and artillery, driven by its armoring (greater strength) and mobility (lighter weight) enhancements. An example of these qualities is the light-weight Howitzer artillery program, which began full-rate production in 2005. We are the principal titanium supplier for the Howitzer under a contract with BAE Systems through the first quarter of 2014.

Energy, Medical, & Other

Sales to the energy, medical device, and other markets consist primarily of shipments to the energy and medical device sectors from the Fabrication Group and continued shipments of ferro titanium to the specialty steel industry from the Titanium Group.

In the energy sector, demand for our products for oil and natural gas extraction, including deepwater drilling exploration and production, continued to increase in 2012. Demand for these products has grown due to increased oil and gas development from deepwater and difficult-to-reach locations around the globe. As the complexity of oil and gas exploration and production increases, the expected scope of potential uses for titanium-based structures and components is expected to increase as well.

In the medical device sector, we collaboratively engineer innovative, precision-machined solutions with our customers in the minimally invasive surgical device and implantable device markets. The market for medical devices is focused primarily on North America, Western Europe, and Japan. Demand for these products is expected to increase as populations age and the healthcare industry continues to focus on cost containment.

Growth in developing nations, such as China, India, and the Middle East, has stimulated increased demand from the chemical process industry for heat exchangers, tubing for power plant construction, and specialty metals for desalinization plants. While we do not currently participate in these markets due to the nature of their product lines, increased demand for these products has resulted in increased titanium demand overall.

Products and Segments

As of December 31, 2012, we conducted our operations in three reportable segments: the Titanium Group, the Fabrication Group, and the Distribution Group. As of January 2013, we revised our reporting structure so as to conduct our operations in two reportable segments: the Titanium Segment and the Engineered Products and Services Segment. The revised structure that became effective January 2013 combined the majority of our former Distribution Group with the Titanium Group, with the remaining portion of the former Distribution Group combined with the former Fabrication Group to become the Engineered Products and Services Segment.

Titanium Group

The Titanium Group's products consist primarily of titanium mill products and ferro titanium alloys (for use in steel and other industries). Its titanium furnaces (as well as other processing equipment) and products are certified and approved for use by all major domestic and most international manufacturers of commercial and military airframes and jet engines. Attaining such certifications is often time consuming and expensive and can serve as a barrier to entry into the titanium mill product market. With operations in Niles and Canton, Ohio; Hermitage, Pennsylvania; and Martinsville, Virginia; the Titanium Group manufactures mill products that are fabricated into parts and utilized in aircraft structural sections such as landing gear, fasteners, tail sections, wing support and carry-through structures, and various engine components including rotor blades, vanes and discs,

Table of Contents

rings, and engine casings. The Titanium Group also focuses on the research and development of evolving technologies relating to raw materials, melting, and other production processes, and the application of titanium in new markets.

The Titanium Group's mill products are sold to a customer base consisting primarily of manufacturing and fabrication companies in the supply chain for the commercial aerospace, defense, energy, medical device, and other markets. Customers include prime aircraft manufacturers and their family of subcontractors including fabricators, forge shops, extruders, castings producers, fastener manufacturers, machine shops, and metal distribution companies. Titanium mill products are semi-finished goods and usually represent the raw or starting material for these customers who then form, fabricate, machine, or further process the products into semi-finished and finished parts. In 2012, approximately 53% of the Titanium Group's products were sold to the Company's Fabrication and Distribution Groups, compared to 49% in 2011 and 38% in 2010, where value-added services are performed on such parts prior to their ultimate shipment to the customer. The increase in sales to the Fabrication and Distribution Groups in 2012 resulted from continued strengthening demand for the Distribution Group's titanium products, as well as the expansion of our engineering, precision machining, and fabrication capabilities, which increased demand for mill products from the Titanium Group.

Fabrication Group

The Fabrication Group is comprised of companies with significant hard and soft-metal expertise that form, extrude, fabricate, machine, micro machine, and assemble titanium, aluminum, and other specialty metal parts and components. Its products, many of which are engineered parts and assemblies, primarily serve the commercial aerospace, defense, medical device, oil and gas, power generation, and chemical process industries, as well as a number of other markets. With operations in Minneapolis, Minnesota; Washington, Missouri; Houston, Texas; Laval, Canada; and Welwyn Garden City, England; the Fabrication Group provides value-added products and services such as engineered tubulars and extrusions, fabricated and machined components and sub-assemblies, and components for the production of minimally invasive and implantable medical devices, as well as engineered systems for deepwater oil and gas exploration and production infrastructure. The Titanium Group serves as the primary source of mill products for the Fabrication Group.

Distribution Group

The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys. With operations in Garden Grove, California; Windsor, Connecticut; Sullivan, Missouri; Staffordshire, England; and Rosny-Sur-Seine, France; the Distribution Group is in close proximity to its wide variety of commercial aerospace, defense, energy, medical device, and other customers. The Titanium Group serves as the primary source of mill products for the Distribution Group.

Integrated Strategy

We believe that by providing our customers with a full-range of products, technologies and collaborative engineering, from mill products to precision machined, assembled and kitted titanium components, we provide significant value to our customers.

When titanium products and fabrications are involved in a project, the Titanium Group and the Fabrication Group coordinate their varied capabilities to provide the best materials solution for our customers. An example of this is the Company's light-weight Howitzer artillery program. The Titanium Group provides the titanium mill products to the Fabrication Group, which in turn provides extrusions, hot-formed parts, and machined components which are then packaged as a kit by the Distribution Group and shipped to the customer for final assembly.

Table of Contents

The amount and percentage of our consolidated net sales represented by each Group for each of the past three years are summarized in the following table:

<i>(dollars in millions)</i>	2012		2011		2010	
	\$	%	\$	%	\$	%
Titanium Group	\$ 159.6	21.6%	\$ 160.7	30.3%	\$ 142.9	33.1%
Fabrication Group	335.3	45.4%	150.5	28.4%	134.4	31.1%
Distribution Group	243.7	33.0%	218.5	41.3%	154.5	35.8%
Total consolidated net sales	\$ 738.6	100.0%	\$ 529.7	100.0%	\$ 431.8	100.0%

Operating income (loss) and the percentage of consolidated operating income (loss) contributed by each Group for each of the past three years is summarized in the following table:

<i>(dollars in millions)</i>	2012		2011		2010	
	\$	%	\$	%	\$	%
Titanium Group	\$ 26.2	47.6%	\$ 29.0	104.3%	\$ 18.4	130.5%
Fabrication Group	12.5	22.7%	(11.2)	(40.3)%	(7.6)	(53.9)%
Distribution Group	16.3	29.7%	10.0	36.0%	3.3	23.4%
Total consolidated operating income (loss)	\$ 55.0	100.0%	\$ 27.8	100.0%	\$ 14.1	100.0%

Our total consolidated assets identified with each Group as of December 31 of each of the past three years are summarized in the following table:

<i>(dollars in millions)</i>	2012	2011	2010
Titanium Group	\$ 421.1	\$ 356.4	\$ 367.6
Fabrication Group	573.6	291.0	246.9
Distribution Group	181.4	170.6	120.9
General Corporate (1)	83.6	309.3	371.5
Total consolidated assets	\$ 1,259.7	\$ 1,127.3	\$ 1,106.9

(1) Consists primarily of unallocated cash and short-term investments.

Our long-lived assets by geographic area as of December 31 of each of the past three years are summarized in the following table:

<i>(dollars in millions)</i>	2012	2011	2010
United States	\$ 472.4	\$ 280.4	\$ 243.8
Canada	64.7	67.7	73.1
England	37.7	37.1	5.5
France.	0.8	0.5	0.4
Total consolidated long-lived assets	\$ 575.6	\$ 385.7	\$ 322.8

Exports

The majority of our exports consist of titanium mill products, extrusions, and machined extrusions used in the aerospace markets. Our export sales as a percentage of total net sales for each of the past three years were as follows:

	2012	2011	2010
Export sales	34%	34%	34%

S-43

Table of Contents

Such sales were made primarily to Europe, where we are a leader in supplying flat-rolled titanium alloy mill products. Most of our export sales are denominated in U.S. Dollars.

Backlog

Our order backlog for all markets was approximately \$554 million as of December 31, 2012, as compared to \$476 million at December 31, 2011. A large portion of the increase is attributable to our February 2012 acquisition of Remmele Holding, Inc. (formerly REI Delaware Holding, Inc.), which directly owns all of the issued and outstanding capital stock of RTI Remmele Engineering, Inc. (formerly Remmele Engineering, Inc.) and indirectly owns all of the issued and outstanding capital stock of RTI Remmele Medical, Inc. (formerly REI Medical, Inc.), and provides precision machining and collaborative engineering, as well as other key technologies and services, for the aerospace and defense and medical device sectors. Of the backlog at December 31, 2012, approximately \$504 million is likely to be realized in 2013. We define backlog as firm business scheduled for release into the production process for a specific delivery date. We have numerous contracts that extend multiple years, including the Airbus, JSF, and Boeing 787 Dreamliner® long-term supply agreements, which are not included in backlog until a specific release into production or a firm delivery date has been established.

Raw Materials

The principal raw materials used in the production of titanium mill products are titanium sponge (a porous metallic material, so called due to its appearance), titanium scrap, and various alloying agents. We source our raw materials from a number of domestic and foreign titanium suppliers under long-term contracts and other negotiated transactions. Currently, all of our titanium sponge requirements are sourced from foreign suppliers. Requirements for titanium sponge, scrap, alloys, and other metallics vary depending upon the exacting specification of the end market application. Our cold-hearth and electron beam melting process provide us with the flexibility to consume a wider range of metallics, thereby reducing our need for purchased titanium sponge.

We currently have supply agreements in place for certain critical raw materials. These supply agreements are with suppliers located in, or for products produced in, Japan and the United States, and allow us to purchase certain quantities of raw materials at either annually negotiated prices or, in some cases, fixed prices that may be subject to certain underlying input cost adjustments. Purchases made under these contracts are denominated in U.S. Dollars; however, in some cases, the contract provisions include potential price adjustments based on the extent that the Yen to U.S. Dollar exchange rate falls outside of a specified range. These contracts expire at various periods through 2021. We acquire the balance of our raw materials opportunistically on the spot market as needed. We believe we have adequate sources of supply for titanium sponge, titanium scrap, alloying agents, and other raw materials to meet our short and medium-term needs.

Business units in the Fabrication and Distribution Groups obtain the majority of their titanium mill product requirements from the Titanium Group. Other metallic requirements are generally sourced from the best available supplier at competitive market prices.

Competition and Other Market Factors

The titanium metals industry is a highly-competitive and cyclical global business. Titanium competes with other materials, including certain stainless steel, other nickel-based high-temperature and corrosion resistant alloys, and composites. A metal manufacturing company with rolling and finishing facilities could participate in the mill product segment of the industry, although it would either need to acquire intermediate product from an existing source or further integrate to include vacuum melting and forging operations to provide the starting stock for further rolling. In addition, many end-use applications, especially in the aerospace industry, require rigorous testing, approvals, and customer certification prior to purchase, which requires a manufacturer to expend significant time and capital and possess extensive technical expertise, given the complexity of the specifications often required by customers.

Table of Contents

Consumers of titanium products in the aerospace industry tend to be very large and highly concentrated. Boeing, Airbus, Lockheed Martin, Bombardier, and Embraer manufacture airframes. General Electric, Pratt & Whitney, Rolls Royce, and Snecma build jet engines. Direct purchases from these companies, and their family of specialty subcontractors, account for a majority of aerospace products manufactured for large commercial aerospace and defense applications.

Producers of titanium mill products are primarily located in the U.S., Japan, Russia, Europe, and China. The Company participates directly in the titanium mill product business primarily through its Titanium Group. Our principal competitors in the aerospace titanium mill product market are ATI and PCP, through its recent acquisition of Titanium Metals Corp. (TIE), both based in the United States, and Verkhnyaya Salda Metallurgical Production Organization (RU: VSMO), based in Russia. We compete with these companies primarily on the basis of price, quality of products, technical support, and the availability of products to meet customers' delivery schedules.

The Fabrication and Distribution Groups compete with other companies primarily on the basis of price, quality, timely delivery, and customer service. Our principal competitors in the aerospace titanium fabricated component market are GKN Aerospace PLC (LSE: GKN), Triumph Group Inc. (TGI), LMI Aerospace (LMIA), PCP through its acquisition of Titanium Metals Corp., Synchronous Aerospace Group and Primus International, Inc. (among other acquisitions), and Ducommun Inc. (DCO). In the energy production market, we compete with 2H Offshore, Oil States International, Inc. (OIS), Ameriforge Group, Inc., and Sheffield Offshore Services. In the medical device market, we compete with Norwood Medical, Accellent, and Mountainside Medical. We believe that the business units in its Fabrication and Distribution Groups are well-positioned to continue to compete and grow due to the range of goods and services offered, their demonstrated expertise, and the increasing synergy with the Titanium Group for product and technical support.

Trade and Legislative Factors

Imports of titanium mill products from countries that are subject to the normal trade relations (NTR) tariff rate are subject to a 15% tariff, whereas the countries not subject to the NTR tariff rate are subject to a 45% tariff. Additionally, a 15% tariff exists on unwrought titanium products entering the U.S., including titanium sponge. Currently, we import titanium sponge from Kazakhstan and Japan, which is subject to this 15% tariff. Competitors of ours that do not import titanium sponge are not subject to the additional 15% tariff in the cost of their products. In the past, we have sought relief from this tariff through the Offices of the U.S. Trade Representative but have been unsuccessful in having the tariff removed. We believe the U.S. trade laws as currently applied to the domestic titanium industry create a competitive disadvantage to us.

U.S. Customs and Border Protection (U.S. Customs) administers a duty drawback program whereby duty paid on imported items can be recovered. In the event materials on which duty has been paid are used in the manufacture of products in the United States and such manufactured products are then exported, duties previously paid may be refunded as drawbacks, provided that various requirements are met. We participate in the U.S. Customs' duty drawback program.

The United States Government is required by 10 U.S.C. §2533b, Requirement to buy strategic materials critical to national security from American sources (the Specialty Metals Clause), to use domestically-melted titanium for certain military applications. The law, which dates back to the Berry Amendment of 1973, is important to us in that it supports the domestic specialty metals industry. The Specialty Metals Clause was comprehensively revised in the 2007 Defense Authorization Act (the 2007 Act); however, the subject was reopened in the 2007-2008 legislative session as a result of universal dissatisfaction with the implementation of the 2007 Act by the Department of Defense. Consequently, provisions under the National Defense Authorization Act for Fiscal Year 2008 (2008 Act) reflect a compromise on domestic source requirements for specialty metals.

Table of Contents

The 2008 Act provided an important clarification for the specialty metals industry in that it affirmed that the Specialty Metals Clause does apply to commercial off-the-shelf-items such as: specialty metals mill products like titanium bar, billet, slab, and sheet; forgings and castings of specialty metals (unless incorporated into a commercial off-the-shelf item or subassembly); and fasteners (unless incorporated into commercial off-the-shelf end items or subassemblies). The 2008 Act does provide for a *de minimis* exception whereby defense agencies may accept an item containing up to 2% noncompliant metal, based on the total weight of all of the specialty metals in an item. This exception might apply, for example, to small specialty metal parts in a jet engine if the source of the parts cannot be ascertained. The 2008 Act revised the rules for granting compliance waivers when compliant materials are not available such that the Department of Defense was required to reexamine previously granted waivers (which the specialty metals industry had challenged as overly broad) and amend them, if necessary, to comply with the 2008 Act. The 2008 Act also required greater transparency in the use of the waiver process and required the Department of Defense to report to Congress on the first and second anniversaries of the legislation concerning the types of items that were being procured under the new commercial off-the-shelf exception.

We believe that the compromises contained in the 2008 Act provided a fair and workable solution bridging the biggest concerns on both sides of the debate. We, together with the specialty metals industry as a whole, continue to monitor the application and enforcement of the 2008 Act to affirm that the Specialty Metals Clause continues to ensure a reliable, domestic source for products critical to national security.

Environmental Liabilities

We are subject to various environmental laws and regulations as well as certain health and safety laws and regulations that are subject to frequent modifications and revisions. While historically the cost of compliance for these matters has not had a material adverse impact on us, it is not possible to accurately predict the ultimate effect changing environmental health and safety laws and regulations may have on us in the future. We continually evaluate our obligations for environmental-related costs on a quarterly basis and make adjustments as necessary.

Marketing and Distribution

We market our titanium mill and related products and services worldwide. The majority of our sales are made through our own sales force. Our sales force has offices in Niles, Ohio; Minneapolis, Minnesota; Houston, Texas; Garden Grove, California; St. Louis and Washington, Missouri; Windsor, Connecticut; Tamworth and Welwyn Garden City, England; and Laval, Canada. Technical Marketing personnel are available to service these offices. Customer support for new product applications and development is provided by our Customer Technical Service personnel at each business unit, as well as at the corporate-level through our Technical Business Development and Research and Development organizations located in Pittsburgh, Pennsylvania and Niles, Ohio, respectively. Sales of the Fabrication and Distribution Groups' products and services are made by our corporate-level sales force and personnel at each location.

Research, Technical, and Product Development

We conduct research, technical, and product development activities for both the Titanium Group and the Fabrication Group. Research includes not only new product development, but also new or improved technical and manufacturing processes. The principal goals of our research programs are advancing technical expertise in the production of titanium mill and fabricated products, and developing innovative solutions to customer needs through new and improved mill and value-added products. Our research, technical, and product development expenses for each of the past three years were as follows:

<i>(dollars in millions)</i>	2012	2011	2010
Research, technical and product development expenses	\$ 4.2	\$ 3.4	\$ 3.3

Table of Contents

Patents and Trademarks

We possess a substantial body of technical know-how and trade secrets. We consider our expertise, trade secrets, and patent portfolio to be important to the conduct of our business, although no individual item is currently considered to be material to either our business as a whole or to an individual reporting segment. Our Titanium Group holds eight patents covering various manufacturing processes, most of which have not yet been commercialized. Our Fabrication Group holds seven patents related to its energy business. With the exception of one patent expiring in 2013, all of our patents have been issued between 2000 and 2011.

Employees

At December 31, 2012, we and our subsidiaries had 2,362 employees, 886 of whom were classified as administrative and sales personnel. Of the total number of employees, 716 employees were in the Titanium Group, 1,430 in the Fabrication Group, 145 in the Distribution Group, and 71 in RTI Corporate.

The United Steelworkers of America (USW) represents 354 of the hourly, clerical, and technical employees at our plant in Niles, Ohio. On March 8, 2012, we extended our current union contract with the USW through June 30, 2018. Our facility in Washington, Missouri has 155 hourly employees who are represented by the International Association of Machinists and Aerospace Workers (IAMAW). The current labor contract with the IAMAW expires on February 19, 2015. None of our other employees are currently represented by a union.

PRINCIPAL EXECUTIVE OFFICERS

Listed below are the executive officers of the Company, together with their ages and titles as of April 1, 2013.

Name	Age	Title
Dawne S. Hickton	55	Vice Chair, President & Chief Executive Officer
Patricia O. Connell	51	Executive Vice President Commercial
James L. McCarley	49	Executive Vice President Operations
William T. Hull	55	Senior Vice President and Chief Financial Officer
William F. Strome	57	Senior Vice President of Finance and Administration
Chad Whalen	38	General Counsel, Secretary & Senior Vice President Government Relations

Biographies

Ms. Hickton was appointed Vice Chair, President and Chief Executive Officer in October 2009. She had served as Vice Chair and Chief Executive Officer since April 2007, Senior Vice President and Chief Administrative Officer since July 2005, Corporate Secretary since April 2004, and Vice President and General Counsel since June 1997. Prior to joining the Company, Ms. Hickton had been an Assistant Professor of Law at The University of Pittsburgh School of Law, and was employed at U.S. Steel Corporation from 1983 through 1994.

Ms. O. Connell was appointed Executive Vice President of Commercial in January 2013. Ms. O. Connell most recently was president of customer business for the defense, civil helicopters and small turbo props businesses of Rolls-Royce North America. From 2008 to 2010, Ms. O. Connell held the positions of Executive Vice President at GE Aviation and President, GE Civil Aviation Systems. Prior to her role at GE, Ms. O. Connell spent 12 years at Rockwell Collins in various senior management and executive positions.

Table of Contents

Mr. McCarley was appointed Executive Vice President of Operations in May 2010. He had served as the Chief Executive Officer of General Vortex Energy, Inc., a private developer of engine and combustion technologies, from September 2009 to May 2010. From 1987 to 2009, Mr. McCarley served in a variety of management positions at Wyman Gordon, a division of Precision Castparts Corporation, a global manufacturer of complex metal components, most recently as Division President of Wyman Gordon West from 2008 to 2009 and Vice President & General Manager from 2006 to 2008.

Mr. Hull was appointed Senior Vice President and Chief Financial Officer in April 2007. He had served as Vice President and Chief Accounting Officer since August 2005. Prior to joining the Company, Mr. Hull served as Corporate Controller of Stoneridge, Inc., of Warren, Ohio, where he was employed since 2000. Mr. Hull is a Certified Public Accountant.

Mr. Strome was appointed Senior Vice President of Finance and Administration in October 2009. He had served as Senior Vice President of Strategic Planning and Finance since November 2007. Prior to joining the Company, Mr. Strome served as a Principal focusing on environmental development projects at Laurel Mountain Partners, L.L.C. Prior to joining Laurel in 2006, Mr. Strome served as Senior Managing Director and Group Head, Diversified Industrials at the investment banking firm Friedman, Billings, Ramsey & Co., Inc. From 1981 to 2001, Mr. Strome was employed by PNC Financial Services Group, Inc. in various legal capacities and most recently managed PNC's corporate finance advisory activities and its mergers and acquisitions services.

Mr. Whalen was appointed Vice President, General Counsel and Secretary in February 2007. Mr. Whalen practiced corporate law at the law firm of Buchanan Ingersoll & Rooney PC from 1999 until joining the Company. He is an active member of The Society of Corporate Secretaries and Government Professionals and the Business Law Section of the American Bar Association.

Table of Contents

DESCRIPTION OF CERTAIN INDEBTEDNESS

The following is a summary of material terms and conditions of our material debt instruments. The summary is not complete and may not contain all of the information that is important to you.

2015 Notes

On December 14, 2010, we completed the offer and sale of \$230.0 million aggregate principal amount of 3.000% Convertible Senior Notes due 2015 (referred to herein as our 2015 Notes). We utilized the net proceeds from the sale of the 2015 Notes for working capital and general corporate purposes, including capital expenditures, as well as acquisitions. The 2015 Notes mature on December 1, 2015. Interest on the 2015 Notes accrued from December 14, 2010 and is payable semiannually in arrears on June 1 and December 1 of each year, at a rate of 3.000% per year. The 2015 Notes are our general unsecured obligations, and are guaranteed by the same six subsidiaries that guarantee our obligations under our existing credit facility and will guarantee the notes. Any future subsidiaries that are added or removed as guarantors under our credit agreement will concurrently be added or removed as guarantors under the 2015 Notes. Prior to June 1, 2015, the 2015 Notes are convertible, at the option of the holders thereof, only under the following circumstances: (i) during any fiscal quarter (and only during such fiscal quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% of the applicable conversion price on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period (the measurement period) in which, for each trading day of such measurement period, the trading price per \$1,000 principal amount of 2015 Notes on such trading day was less than 98% of the product of the last reported sale price of our common stock on such trading day and the applicable conversion rate on such trading day; or (iii) upon the occurrence of specified distributions and corporate events. The 2015 Notes are convertible at a conversion rate of 27.8474 shares of our common stock per \$1,000 principal amount of 2015 Notes, subject to adjustment. Upon conversion, holders will receive, at our election, cash, shares of our common stock or a combination of both. The amount of cash, if any, and the number of shares of our common stock, if any, paid or delivered, as applicable, will be based on daily conversion value calculated on a proportionate basis for each trading day in a 40 trading day observation period.

If we undergo a fundamental change (as defined for purposes of the 2015 Notes), subject to certain conditions, holders have the option to require us to purchase all or any portion of their 2015 Notes that is equal to \$1,000 in principal amount or an integral multiple thereof for cash. The fundamental change purchase price will be 100% of the principal amount of the 2015 Notes to be purchased, plus any accrued and unpaid interest up to, but excluding, the fundamental change purchase date.

Credit Facility

On May 23, 2012 we and certain of our subsidiaries as guarantors entered into a Second Amended and Restated Credit Agreement as of May 23, 2012 (the Credit Facility) for a \$150 million senior revolving credit facility, which replaced our First Amended and Restated Credit Agreement. The Credit Agreement provides a revolving credit facility of \$150 million and expires on May 23, 2017. Borrowings under the Credit Agreement bear interest, at our option, at a rate equal to the London Interbank Offered Rate (the LIBOR Rate) plus an applicable margin or the base rate plus an applicable margin. Both the applicable margin and the facility fee vary based upon our consolidated net debt to consolidated EBITDA ratio, as defined in the Credit Agreement. We had no borrowings outstanding under the Credit Agreement during the year ended December 31, 2012 and approximately \$1 million outstanding under existing letters of credit.

Our Credit Facility is guaranteed by our material domestic subsidiaries which consist of: RMI Titanium Company; Extrusion Technology Corporation of America (d/b/a RTI-Fabrication); RTI Finance Corp.; RTI Martinsville, Inc.; Remmele Engineering, Inc.; and REI Medical, Inc. In addition, any other subsidiary which in

Table of Contents

the future owns 5% or more of our consolidated assets is required to guarantee our Credit Facility. We have pledged 65% of the outstanding stock of RTI-Claro, Inc., our only material foreign subsidiary currently, as security for our obligations under our Credit Facility.

Our Credit Facility requires ongoing compliance with certain affirmative and negative covenants. Our Credit Facility provides that other than (i) dividends and distributions payment directly or indirectly to us, (ii) dividends and distributions in connection with our share purchase programs or employee stock purchase programs, (iii) certain compensation and benefit plans, and (iv) so long as no event of default or potential default exists under our Credit Facility, dividends and distributions payable to our subsidiaries and shareholders, we are not permitted to make or pay, or agree to become or remain liable to make or pay, any dividend or other distribution of any nature (whether in cash, properties, securities or otherwise) on account of or in respect of its shares of capital stock, partnership interests or limited liability company interests, as applicable.

S-50

Table of Contents

DESCRIPTION OF NOTES

The following description of the particular terms of the notes offered by this prospectus supplement supplements the description of the general terms and provisions of the debt securities set forth in the accompanying prospectus under the caption Description of Debt Securities.

We will issue the notes under an indenture dated as of December 14, 2010, as supplemented by the second supplemental indenture dated as of May 30, 2012 (the indenture, as so supplemented, the base indenture) between us and The Bank of New York Mellon Trust Company, N.A., as trustee (the trustee), as supplemented by a third supplemental indenture to be dated as of April 17, 2013 (the supplemental indenture and together with the base indenture, the indenture) between us, the subsidiary guarantors named therein and the trustee. The terms of the notes include those expressly set forth in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended. You may request a copy of the base indenture and the supplemental indenture from us as described under Where You Can Find More Information About Us.

The following description is a summary of the material provisions of the notes and the indenture and does not purport to be complete. This summary is subject to and is qualified by reference to all the provisions of the notes and the indenture, including the definitions of certain terms used in the indenture. We urge you to read these documents because they, and not this description, define your rights as a holder of the notes.

For purposes of this description, references to we, our and us refer only to RTI International Metals, Inc. and not to any of its consolidated subsidiaries.

General

The notes:

will be our general unsecured, senior obligations;

will initially be limited to an aggregate principal amount of \$350,000,000 (or \$402,500,000 if the underwriters over-allotment option is exercised in full);

will bear cash interest from April 17, 2013 at an annual rate of 1.625% payable in arrears on April 15 and October 15 of each year, beginning on October 15, 2013;

will not be redeemable prior to their maturity date;

will be subject to purchase by us for cash at the option of the holders following a fundamental change (as defined below under Fundamental Change Permits Holders to Require Us to Purchase Notes) at a price equal to 100% of the principal amount of the notes to be purchased, plus accrued and unpaid interest, if any, up to but excluding the fundamental change purchase date;

will mature on October 15, 2019 unless earlier converted or repurchased;

will be issued in denominations of \$1,000 and integral multiples of \$1,000;

will be guaranteed on an unsecured, senior basis by six of our subsidiaries- RMI Titanium Company, Extrusion Technology Corporation of America, RTI Finance Corp., RTI Martinsville, Inc., RTI Remmele Medical, Inc. and RTI Remmele Engineering, Inc.,

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

each of which guarantee our existing credit facility as described under [Subsidiary Guarantees](#) ; and

will be represented by one or more registered notes in global form, but in certain limited circumstances may be represented by notes in definitive form. See [Book-entry, Settlement and Clearance](#).

Subject to fulfillment of certain conditions and during the periods described below, the notes may be converted as described below at the applicable conversion rate. The conversion rate will initially be 24.5604 shares of our common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of \$40.72 per share of our common stock). The conversion rate is subject to adjustment if certain events occur.

S-51

Table of Contents

Upon conversion of a note, we will deliver or pay, as the case may be, shares of our common stock, cash or a combination of cash and shares of our common stock, at our election, as described below under **Conversion Rights Settlement upon Conversion**. Upon conversion, you will not receive any separate cash payment or additional shares of our common stock representing interest, if any, accrued and unpaid to the conversion date except under the limited circumstances described below.

The indenture does not limit the amount of debt that we or our subsidiaries may issue under the indenture or otherwise. The indenture does not contain any financial covenants and does not restrict us from paying dividends or issuing or repurchasing our other securities. Other than restrictions described under **Fundamental Change Permits Holders to Require Us to Purchase Notes** and **Consolidation, Merger and Sale of Assets** below and except for the provisions set forth under **Conversion Rights Adjustment to Conversion Rate Upon Conversion in Connection with a Make-whole Fundamental Change**, the indenture does not contain any covenants or other provisions designed to afford holders of the notes protection in the event of a highly leveraged transaction involving us or in the event of a decline in our credit rating as the result of a takeover, recapitalization, highly leveraged transaction or similar restructuring involving us that could adversely affect such holders.

We may, without the consent of the holders, issue additional notes under the indenture with the same terms and with the same CUSIP number as the notes offered hereby in an unlimited aggregate principal amount; *provided* that such additional notes must be part of the same issue as the notes offered hereby for federal income tax purposes. We may also from time to time repurchase notes in open market purchases or negotiated transactions without giving prior notice to holders. Any notes purchased by us will be deemed to be no longer outstanding under the indenture.

We do not intend to list the notes on a national securities exchange or arrange for the notes to be quoted on any interdealer quotation system.

Payments on the Notes; Paying Agent and Registrar; Transfer and Exchange

We will pay the principal of and interest on notes in global form registered in the name of or held by The Depository Trust Company (**DTC**) or its nominee in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global note.

We will pay the principal of any certificated notes at the office or agency designated by us for that purpose in the Borough of Manhattan, The City of New York. We have initially designated the trustee as our paying agent and registrar and its agency at the corporate trust office of the trustee in New York, New York as a place where notes may be presented for payment or for registration of transfer. We may, however, change the paying agent or registrar without prior notice to the holders of the notes, and we may act as paying agent or registrar. Interest on certificated notes will be payable (i) to holders holding certificated notes having an aggregate principal amount of \$5,000,000 or less, by check mailed to the holders of these notes and (ii) to holders holding certificated notes having an aggregate principal amount of more than \$5,000,000, either by check mailed to each such holder or, upon application by such a holder to the registrar not later than the relevant record date, by wire transfer in immediately available funds to that holder's account within the United States, which application shall remain in effect until the holder notifies, in writing, the registrar to the contrary.

A holder of certificated notes may transfer or exchange notes at the office of the registrar in accordance with the indenture. The registrar and the trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents. A holder of a beneficial interest in a global note may transfer such beneficial interest in accordance with the applicable procedures of the depository. See **Book-entry, Settlement and Clearance**. No service charge will be imposed by us, the trustee or the registrar for any registration of transfer or exchange of notes, but any documentary, stamp or similar issue or transfer tax due because a holder requests any shares of our common stock due upon conversion to be issued in a name other than such holder's name will be paid by such holder. We are not required to transfer or exchange any note surrendered for conversion or required purchase upon the occurrence of a fundamental change.

Table of Contents

The registered holder of a note will be treated as the owner of such note for all purposes.

Payment at Maturity

On the maturity date, each holder will be entitled to receive on such date \$1,000 in cash for each \$1,000 in principal amount of notes, together with accrued and unpaid interest to, but not including, the maturity date, unless earlier converted or purchased by us at the holder's option upon a fundamental change.

Interest

The notes will bear cash interest at a rate of 1.625% per year until maturity. Interest on the notes will accrue from April 17, 2013 or from the most recent date on which interest has been paid or duly provided for. Interest will be payable semiannually in arrears on April 15 and October 15 of each year, beginning October 15, 2013. We will pay additional interest, if any, under the circumstances described under "Events of Default."

Interest will be paid to the person in whose name a note is registered at the close of business on April 1 or October 1 (whether or not a business day), as the case may be, immediately preceding the relevant interest payment date. Interest on the notes will be computed on the basis of a 360-day year composed of twelve 30-day months. The term "open of business" means 9:00 a.m., New York City time, and the term "close of business" means 5:00 p.m., New York City time.

If any interest payment date, the maturity date or any earlier required repurchase date upon the occurrence of a fundamental change falls on a day that is not a business day, the required payment will be made on the next succeeding business day and no interest on such payment will accrue in respect of the delay. The term "business day" means any day other than a Saturday, a Sunday or a day on which the Federal Reserve Bank of New York is authorized or required by law or executive order to close or be closed.

Unless otherwise explicitly stated, all references to interest in this prospectus supplement are deemed to include additional interest, if any, payable at our election as the sole remedy during certain periods for an event of default relating to the failure to comply with our reporting obligations under the indenture, if applicable, as described under "Events of Default."

Ranking

The notes will be our general unsecured obligations and will rank senior in right of payment to all of our existing and future indebtedness that is expressly subordinated in right of payment to the notes. The notes will rank equal in right of payment with all of our existing and future liabilities that are not so subordinated. The notes will be effectively subordinated to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness (including any future indebtedness under our existing credit facility, which is secured by a pledge of 65% of the capital stock of our only currently material foreign subsidiary). The notes will be structurally subordinated to all existing and future indebtedness and other obligations of our subsidiaries that do not guarantee the notes. In the event of our bankruptcy, liquidation, reorganization or other winding up, our assets that secure secured debt will be available to pay obligations on the notes only after all indebtedness under such secured debt has been repaid in full. We advise you that there may not be sufficient assets remaining to pay amounts due on any or all the notes then outstanding.

As of December 31, 2012, our total consolidated indebtedness was \$199.3 million. As of December 31, 2012, we had no secured indebtedness. As of that date, we also had approximately \$150 million of availability under our existing credit facility, which is secured by a pledge of 65% of the capital stock of our only currently material foreign subsidiary. After giving effect to the issuance of the notes (assuming no exercise of the underwriters' over-allotment option) and the use of proceeds therefrom (assuming no repurchase of our existing 2015 Notes), our total consolidated indebtedness would have been \$449.3 million. See "Risk Factors - Risks Related to the Notes." The notes and subsidiary guarantees will be effectively subordinated to current and future secured debt of RTI or the subsidiary guarantors.

Table of Contents

Each subsidiary guarantee will be a general unsecured obligation of such subsidiary guarantor and will rank senior in right of payment to all of such subsidiary guarantor's existing and future indebtedness that is expressly subordinated in right of payment to its subsidiary guarantee. Each subsidiary guarantee will rank equal in right of payment with all existing and future liabilities of the applicable subsidiary guarantor that are not so subordinated. Each subsidiary guarantee will be effectively subordinated to any secured indebtedness of the applicable subsidiary guarantor to the extent of the value of the assets securing such indebtedness. Each subsidiary guarantee will be structurally subordinated to all existing and future indebtedness and other obligations of subsidiaries of the applicable subsidiary guarantor that do not themselves guarantee the notes. In the event of the bankruptcy, liquidation, reorganization or other winding up of a subsidiary guarantor, the assets of such subsidiary guarantor that secure secured debt will be available to pay obligations on the applicable subsidiary guarantee only after all indebtedness under such secured debt has been repaid in full. We advise you that there may not be sufficient assets remaining to pay amounts due on the applicable subsidiary guarantee.

As of December 31, 2012, our subsidiaries held substantially all of our consolidated assets and generated substantially all of our consolidated net sales and operating income. As of December 31, 2012, our subsidiary guarantors held approximately 70.5% of our consolidated assets and, for the year ended December 31, 2012, represented approximately 68.1% of our consolidated net sales. For the year ended December 31, 2012, our subsidiary guarantors collectively represented 49.5% of our consolidated operating income. Additional financial information regarding RTI on an unconsolidated basis, the subsidiary guarantors and our subsidiaries that are not guarantor subsidiaries can be found in our Annual Report on Form 10-K filed on February 22, 2013. No subsidiary other than the six subsidiary guarantors set forth in this prospectus has any obligations in respect of the notes. The ability of our subsidiaries to pay dividends and make other payments could be restricted by, among other things, applicable corporate and other laws and regulations as well as future agreements to which our subsidiaries could become parties. Accordingly, we may not be able to pay the amount of cash, if any, due upon any conversion of the notes, or to pay the cash fundamental change purchase price if a holder requires us to purchase notes as described under Fundamental Change Permits Holders to Require Us to Purchase Notes.

Subsidiary Guarantees

The notes will be guaranteed by each of our subsidiaries that guarantee obligations under our Credit Facility, and will include any subsidiary that guarantees obligations under the Credit Facility, as amended and as the same may be amended, restated, supplemented, modified, renewed, refunded, replaced or refinanced (and whether or not with the same lenders and agents or other lenders, agent or financing sources), after the issue date of the notes. The notes initially will be guaranteed by our six subsidiaries that guarantee the obligations under our credit facility and our 2015 Notes; RMI Titanium Company, Extrusion Technology Corporation of America, RTI Finance Corp., RTI Martinsville, Inc., RTI Remmele Medical, Inc. and RTI Remmele Engineering, Inc. As used in this prospectus supplement, the term subsidiary guarantor refers to RMI Titanium Company, Extrusion Technology Corporation of America, RTI Finance Corp., RTI Martinsville, Inc. RTI Remmele Medical, Inc. and RTI Remmele Engineering, Inc. and any of our subsidiaries that may guarantee the notes in the future, and the term subsidiary guarantee refers to the guarantee of our obligations under the indenture and the notes by a subsidiary guarantor.

If after the issue date, any subsidiary of ours incurs or guarantees any obligations under the Credit Facility prior to the conversion, repurchase or maturity of the notes, the indenture will require us concurrently to cause such subsidiary to (A) execute and deliver to the trustee a supplemental indenture in a form reasonably satisfactory to the trustee pursuant to which such subsidiary shall fully and unconditionally guarantee all of our obligations under the notes and the indenture and (B) deliver to the trustee an opinion of counsel to the effect that (i) such supplemental indenture and subsidiary guarantee has been duly executed and authorized and (ii) such supplemental indenture and subsidiary guarantee constitutes a valid, binding and enforceable obligation of such subsidiary guarantor, except insofar as enforcement thereof may be limited by bankruptcy, insolvency or similar laws (including, without limitation, all laws relating to fraudulent transfers) and except insofar as enforcement thereof is subject to general principles of equity. Any such subsidiary guarantee shall be pari passu in right of payment with the obligations of such subsidiary under the Credit Facility.

Table of Contents

The subsidiary guarantors will, jointly and severally, fully and unconditionally guarantee our obligations under the indenture and the notes. Under the terms of the subsidiary guarantees, holders of the notes will not be required to exercise their remedies against us before they proceed directly against the subsidiary guarantors. The obligations of a subsidiary guarantor under its subsidiary guarantee will be limited as necessary to prevent the applicable subsidiary guarantee from constituting a fraudulent conveyance or fraudulent transfer under applicable law.

We may not permit our subsidiary guarantors to consolidate with or merge with or into, or sell, convey, assign, transfer or lease or otherwise dispose of, in one transaction or a series of transactions, all or substantially all of its assets to any person unless:

except in the case that a subsidiary guarantor has been disposed of in its entirety to another person (other than to us or an affiliate of ours), whether through a merger, consolidation or sale of capital stock or assets, the resulting, surviving or transferee person (if not the subsidiary guarantor) shall be a person organized and existing under the laws of the United States of America, or any state thereof or the District of Columbia, and such person shall expressly assume, by a guaranty agreement or supplemental indenture, in a form satisfactory to the trustee, all the obligations of the applicable subsidiary guarantor under its subsidiary guarantee;

immediately after giving effect to such transaction or transactions on a pro forma basis, no default shall have occurred and be continuing; and

we deliver to the trustee an officer's certificate and an opinion of counsel, each stating that such consolidation, merger, sale, conveyance, assignment, transfer, lease or other disposition and such guaranty agreement, if any, complies with the indenture. Each subsidiary guarantee shall be automatically and unconditionally released and discharged and the holders of the notes will be deemed to have consented to such release without any action on the part of the trustee or any holder of the notes in the following circumstances:

upon such subsidiary guarantor ceasing to be an obligor under the Credit Facility; or

upon the sale or other disposition (including by way of consolidation or merger), in one transaction or a series of related transactions, of a majority of the total voting stock of such subsidiary guarantor, *provided* that, after giving effect to such transaction, such entity is (1) no longer a subsidiary of ours and (2) no longer an obligor under the Credit Facility.

Upon the satisfaction of any such condition to the release of such subsidiary guarantee, at our request, the trustee will execute and deliver any documents, instructions or instruments necessary to evidence such release.

Conversion Rights

General

Prior to the close of business on the business day immediately preceding April 15, 2019, subject to prior purchase, the notes will be convertible only upon satisfaction of one or more of the conditions described under the headings Conversion upon Satisfaction of Sale Price Condition, Conversion upon Satisfaction of Trading Price Condition and Conversion upon Specified Corporate Transactions. On or after April 15, 2019, subject to prior purchase, holders may convert their notes at the applicable conversion rate at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date of the notes regardless of whether any of the foregoing conditions has been met. The conversion rate will initially be 24.5604 shares of our common stock per \$1,000 principal amount of notes (equivalent to an initial conversion price of approximately \$40.72 per share of common stock). Upon conversion of a note, we will satisfy our conversion obligation by delivering or paying, as the case may be, shares of our common stock, cash or a combination of cash and shares of our common stock, at our election, all as set forth below under Settlement upon Conversion.

Table of Contents

The trustee will initially act as the conversion agent.

The conversion rate and the equivalent conversion price in effect at any given time are referred to as the applicable conversion rate and the applicable conversion price, respectively, and will be subject to adjustment as described below. The applicable conversion price at any given time will be computed by dividing \$1,000 by the applicable conversion rate at such time. At any time that the notes are convertible, a holder may convert all or any portion of such holder's notes so long as such portion is an integral multiple of the \$1,000 principal amount.

Upon conversion, you will not receive any separate cash payment or additional shares of our common stock representing accrued and unpaid interest, if any, except as described below. We will not issue fractional shares of our common stock upon conversion of notes. Instead, we will pay cash in lieu of any fractional share as described under Settlement upon Conversion. Our payment or delivery, as the case may be, to you of cash, shares of our common stock or a combination thereof, as the case may be, into which a note is convertible, together with any cash payment for any fractional share, will be deemed to satisfy in full our obligation to pay:

the principal amount of the note; and

accrued and unpaid interest, if any, up to but not including the conversion date.

As a result, accrued and unpaid interest, if any, up to but not including the conversion date will be deemed to be paid in full rather than cancelled, extinguished or forfeited. Upon a conversion of notes into a combination of cash and shares of our common stock, accrued and unpaid interest, if any, will be deemed to be paid first out of any cash paid upon such conversion.

Notwithstanding the preceding paragraph, if notes are converted after the close of business on a regular record date for the payment of interest and prior to the open of business on the corresponding interest payment date, holders of such notes at the close of business on such record date will receive the full amount of interest payable on such notes on the corresponding interest payment date notwithstanding the conversion. Notes surrendered for conversion during the period from the close of business on any record date to the open of business on the immediately following interest payment date must be accompanied by funds equal to the amount of interest payable on the notes so converted; provided that no such payment need be made:

if the notes are surrendered for conversion after the close of business on the record date immediately preceding the maturity date;

if we have specified a fundamental change purchase date that is after a record date and on or prior to the second scheduled trading day immediately following the corresponding interest payment date; or

to the extent of any overdue interest, if any overdue interest exists at the time of conversion with respect to such note.

Therefore, for the avoidance of doubt, all holders on the regular record date immediately preceding the maturity date will receive the full interest payment due on the maturity date regardless of whether their notes have been converted following such record date.

If a holder converts notes, we will pay any documentary, stamp or similar issue or transfer tax due on the issue of any shares of our common stock upon the conversion, unless such tax is due because the holder requests any shares to be issued in a name other than the holder's name, in which case the holder will pay such tax.

Holders may surrender their notes for conversion under the following circumstances:

Conversion upon Satisfaction of Sale Price Condition

Prior to the close of business on the business day immediately preceding April 15, 2019, the notes will be convertible during any calendar quarter commencing after June 30, 2013 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive)

Table of Contents

during the period of 30 consecutive trading days ending on the last trading day of the preceding calendar quarter is greater than or equal to 130% of the applicable conversion price on each applicable trading day. We will notify the trustee and the holders in the event the sale price condition has been met.

The last reported sale price of our common stock on any date means the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) on that date as reported in composite transactions for the principal U.S. securities exchange on which our common stock is traded.

If our common stock is not listed for trading on a U.S. national or regional securities exchange on the relevant date, the last reported sale price will be the average of the last quoted bid and ask prices for our common stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization. If our common stock is not so quoted, the last reported sale price will be the average of the mid-point of the last bid and ask prices for our common stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by us for this purpose.

Trading day means a day on which (i) trading in our common stock generally occurs on the NYSE or, if our common stock is not then listed on the NYSE, on the principal other United States national or regional securities exchange on which our common stock is then listed or, if our common stock is not then listed on a United States national or regional securities exchange, on the principal other market on which our common stock is then traded, and (ii) a last reported sale price for our common stock is available on such securities exchange or market. If our common stock (or other security for which a closing sale price must be determined) is not so listed or traded, trading day means a business day.

Conversion upon Satisfaction of Trading Price Condition

Prior to the close of business on the business day immediately preceding April 15, 2019, the notes will be convertible during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price per \$1,000 principal amount of notes, as determined following a request by a holder of notes in accordance with the procedures described below, for each trading day of such measurement period was less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate on such trading day.

The trading price of the notes on any date of determination means the average of the secondary market bid quotations obtained by the bid solicitation agent for \$5 million principal amount of the notes at approximately 3:30 p.m., New York City time, on such determination date from three independent nationally recognized securities dealers we select for this purpose, which may include the underwriters; *provided* that, if three such bids cannot reasonably be obtained by the bid solicitation agent but two such bids are obtained, then the average of the two bids shall be used, and if only one such bid can reasonably be obtained by the bid solicitation agent, that one bid shall be used. If the bid solicitation agent cannot reasonably obtain at least one bid for \$5 million principal amount of notes from a nationally recognized securities dealer on any determination date, then the trading price per \$1,000 principal amount of notes on such determination date will be deemed to be less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate. If we do not so instruct the bid solicitation agent to obtain bids when required or if the bid solicitation agent fails to make such determination when obligated, the trading price per \$1,000 principal amount of the notes will be deemed to be less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate on each day of such failure. We will initially act as the bid solicitation agent, either directly or through a designated agent.

The bid solicitation agent shall have no obligation to determine the trading price of the notes unless we have requested such determination; and we shall have no obligation to make such request unless a holder of a note provides us with reasonable evidence that the trading price per \$1,000 principal amount of notes would be less

Table of Contents

than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate. At such time, we shall instruct the bid solicitation agent in writing to determine the trading price of the notes in the manner described above beginning on the next trading day following the receipt of such evidence and on each successive trading day until the trading price per \$1,000 principal amount of notes on such trading day is greater than or equal to 98% of the product of the last reported sale price of our common stock and applicable conversion rate. If the trading price condition has been met, we will so notify the holders and the trustee within one business day. If, at any time after the trading price condition has been met, the trading price per \$1,000 principal amount of notes is greater than or equal to 98% of the product of the last reported sale price of our common stock and the conversion rate for such date, we will so notify the holders and the trustee within one business day.

Conversion upon Specified Corporate Transactions

Certain Distributions

If, prior to the close of business on the business day immediately preceding April 15, 2019, we elect to:

issue to all or substantially all holders of our common stock any rights, options or warrants entitling them for a period of not more than 45 calendar days after the announcement date of such issuance to subscribe for or purchase shares of our common stock, at a price per share less than the average of the last reported sale prices of our common stock for the ten consecutive trading-day period ending on, and including, the trading day immediately preceding the date of announcement of such issuance; or

distribute to all or substantially all holders of our common stock our assets, debt securities or certain rights to purchase our securities, which distribution has a per share value, as reasonably determined by our board of directors or a committee thereof, exceeding 10% of the last reported sale price of our common stock on the trading day preceding the date of announcement for such distribution, then, in either case, we must notify the holders of the notes at least 35 scheduled trading days prior to the ex-dividend date for such issuance or distribution. Once we have given such notice, the notes will be convertible at any time until the earlier of (x) the close of business on the business day immediately preceding the ex-dividend date and (y) our announcement that such issuance or distribution will not take place, even if the notes are not otherwise convertible at such time. Holders of the notes may not exercise this conversion right if each holder will have the right to participate (as a result of holding the notes, and at the same time and on the same terms as holders of our common stock participate) in any of the transactions described above as if such holder of the notes held a number of shares of our common stock equal to (i) the applicable conversion rate, *multiplied by* (ii) (x) the principal amount of notes held by such holder *divided by* (y) \$1,000, without having to convert its notes.

Certain Corporate Transactions

If a transaction or event that constitutes a fundamental change (as defined under Fundamental Change Permits Holders to Require Us to Purchase Notes) or a make-whole fundamental change (as defined under Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change) occurs prior to the close of business on the business day immediately preceding April 15, 2019, regardless of whether a holder has the right to require us to purchase the notes as described under Fundamental Change Permits Holders to Require Us to Purchase Notes, or if we are a party to a consolidation, merger, binding share exchange, sale, conveyance, transfer or lease of all or substantially all of our assets, pursuant to which our common stock would be converted into cash, securities or other assets, the notes may be surrendered for conversion at any time from or after the business day following the effective date of the transaction until 35 trading days after the effective date of such transaction or, if such transaction also constitutes a fundamental change, until the related fundamental change purchase date (as defined below). We will notify holders and the trustee no later than the effective date of such transaction.

Table of Contents

Conversions on or after April 15, 2019

On or after April 15, 2019, a holder may convert any of its notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of whether any of the foregoing conditions has been met.

Conversion Procedures

If you hold a beneficial interest in a global note, to convert you must comply with DTC's procedures for converting a beneficial interest in a global note and, if required, pay funds equal to any interest payable on the next interest payment date to which you are not entitled and, if required, pay all documentary, stamp or similar issue or transfer taxes, if any.

If you hold a certificated note, to convert you must:

complete and manually sign the conversion notice on the back of the note, or a facsimile of the conversion notice;

deliver the conversion notice, which is irrevocable, and the note to the conversion agent;

if required, furnish appropriate endorsements and transfer documents;

if required, pay all documentary, stamp or similar issue or transfer taxes; and

if required, pay funds equal to any interest payable on the next interest payment date to which you are not entitled.

The date you comply with the relevant procedures for conversion described above is referred to as the conversion date.

If a holder has already delivered a purchase notice as described under Fundamental Change Permits Holders to Require Us to Purchase Notes with respect to a note, the holder may not surrender that note for conversion until the holder has withdrawn the notice in accordance with the indenture.

Settlement upon Conversion

General

Upon conversion, we will deliver to holders, at our election:

shares of our common stock, together with cash in lieu of fractional shares as described below, which we refer to as a physical settlement ;

a cash payment without any delivery of shares of our common stock, which we refer to as a cash settlement; or

a combination of cash and shares of our common stock, which we refer to as a combination settlement.

We refer to each of physical settlement, cash settlement and combination settlement as a settlement method.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

Prior to the close of business on the business day immediately preceding April 15, 2019, we will use the same settlement method for all conversions occurring on the same conversion date. However, prior to April 15, 2019, we will not have any obligation to use the same settlement method with respect to conversions that occur on different conversion dates. That is, we may choose on one conversion date to settle conversions using physical settlement, and choose on another conversion date cash settlement or combination settlement.

S-59

Table of Contents

For conversions:

that occur prior to the close of business on the business day immediately preceding April 15, 2019, by the close of business on the business day following the conversion date, we will notify you of the relevant settlement method and, if we elect combination settlement, the maximum dollar amount of the conversion obligation (the cash amount) per \$1,000 principal amount of notes that will be settled in cash;

that occur on or after April 15, 2019, we will notify you of the relevant settlement method and, if applicable, the related cash amount, by notice prior to the close of business on the business day immediately preceding April 15, 2019 (which settlement method and cash amount, if applicable, will apply to all conversions on or after April 15, 2019).

Any such notice of a settlement method may not be revoked.

If we do not elect a settlement method as described above, then combination settlement will apply and the cash amount will be \$1,000. If we elect combination settlement as the settlement method and do not specify a cash amount, the cash amount will be \$1,000.

As described above, we may elect physical settlement, cash settlement or combination settlement upon any conversion of the notes. We will from time to time make an election with respect to the method we choose to satisfy our obligation upon conversion, which election shall be effective until we provide notice of an election of a different method of settlement, subject to our obligation to give irrevocable notice of the settlement method in certain circumstances as described above.

Each conversion of notes will be deemed to have been effected on the relevant conversion date, and with respect to any shares of common stock that are issuable upon such conversion:

if physical settlement applies, the person in whose name the certificate or certificates for such shares will be registered will become the holder of record of such shares as of the close of business on the conversion date; and

if combination settlement applies, the person in whose name the certificate or certificates for such shares will be registered will become the holder of record of such shares as of the close of business on the last trading day of the related observation period.

Physical Settlement

If physical settlement applies to any notes surrendered for conversion, we will deliver, for each \$1,000 principal amount of notes being converted, a number of shares of our common stock equal to the applicable conversion rate as of the conversion date, together with cash in lieu of fractional shares as described below. Except as described under Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change, we will deliver the shares on the third business day following the conversion date.

Cash Settlement

If cash settlement applies to any notes surrendered for conversion, we will pay, for each \$1,000 principal amount of notes being converted, an amount of cash equal to the sum of the daily conversion values for each trading day during the relevant observation period. Except as described under Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change, we will make such payment on the third business day following the last trading day of the applicable observation period.

Table of Contents

Combination Settlement

If combination settlement applies to any notes surrendered for conversion, we will pay or deliver, as the case may be, for each \$1,000 principal amount of notes being converted, the sum of the daily settlement amounts for each trading day during the relevant observation period. Except as described under Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change, we will deliver the cash and shares of our common stock on the third business day following the last trading day of the applicable observation period.

Fractional Shares

We will deliver cash in lieu of any fractional share of common stock issuable in connection with the delivery of any shares as described above. If physical settlement applies, the amount of cash will be based on the daily VWAP of our common stock on the relevant conversion date if such conversion date occurs prior to the close of business on the business day immediately preceding April 15, 2019. If combination settlement applies, the amount of cash will be based on the daily VWAP on the last trading day of the applicable observation period.

Definitions

As used herein:

daily settlement amount, for each of the 40 consecutive trading days during the observation period, means:

cash in an amount equal to the lesser of (i) 2.5% of the cash amount specified by us in the notice regarding our chosen settlement method (the daily cash amount) and (ii) the daily conversion value on such trading day; and

if the daily conversion value on such trading day exceeds the daily cash amount, a number of shares of our common stock equal to, (i) the difference between such daily conversion value and the daily cash amount, divided by (ii) the daily VWAP on such trading day.

Daily conversion value means, for each of the 40 consecutive trading days during the observation period, 2.5% of the product of (1) the applicable conversion rate and (2) the daily VWAP of our common stock on such trading day.

Daily VWAP means, for each of the 40 consecutive trading days during the applicable observation period, the per share volume-weighted average price as displayed under the heading Bloomberg VWAP on Bloomberg page RTI<equity> AQR (or its equivalent successor if such page is not available) in respect of the period from the scheduled open of trading until the scheduled close of trading of the primary trading session on such trading day (or if such volume-weighted average price is unavailable, the market value of one share of our common stock on such trading day determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained for this purpose by us). Daily VWAP will be determined without regard to after hours trading or any other trading outside of the regular trading session trading hours.

Observation period with respect to any note surrendered for conversion means:

if the relevant conversion date occurs prior to April 15, 2019 and cash settlement or combination settlement applies, the 40 consecutive trading-day period beginning on and including the third trading day immediately following such conversion date; and

if the relevant conversion date occurs on or after April 15, 2019, regardless of the settlement method, the 40 consecutive trading days beginning on and including the 42nd scheduled trading day immediately preceding the maturity date.

Table of Contents

For the purpose of determining amounts due upon conversion only, *trading day* means a day on which (i) there is no market disruption event (as defined below) and (ii) trading in our common stock generally occurs on the NYSE or, if our common stock is not then listed on the NYSE, on the principal other United States national or regional securities exchange on which our common stock is then listed or, if our common stock is not then listed on a United States national or regional securities exchange, on the principal other market on which our common stock is then listed or admitted for trading. If our common stock (or other security for which a daily VWAP must be determined) is not so listed or admitted for trading, *trading day* means a business day.

Scheduled trading day means a day that is scheduled to be a trading day on the principal United States national or regional securities exchange or market on which our common stock is listed or admitted for trading. If our common stock is not so listed or admitted for trading, *scheduled trading day* means a business day.

Market disruption event means (i) a failure by the primary United States national or regional securities exchange or market on which our common stock is listed or admitted for trading to open for trading during its regular trading session or (ii) the occurrence or existence prior to 1:00 p.m., New York City time, on any scheduled trading day for our common stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in our common stock or in any options or futures contracts relating to our common stock.

Conversion Rate Adjustments

The conversion rate will be adjusted as described below, except that we will not make any adjustment to the conversion rate if holders of the notes participate (other than in the case of a share split or share combination), at the same time and upon the same terms as holders of our common stock and solely as a result of holding the notes, in any of the transactions described below without having to convert their notes as if they held a number of shares of our common stock equal to (i) the conversion rate in effect immediately prior to the effective time for such adjustment, *multiplied by* (ii) (x) the principal amount of notes held by such holder *divided by* (y) \$1,000.

(1) If we exclusively issue shares of our common stock as a dividend or distribution on shares of our common stock, or if we effect a share split or share combination, the conversion rate will be adjusted based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{OS_{(1)}}{OS_{(0)}}$$

where,

$CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such dividend or distribution, or immediately prior to the open of business on the effective date of such share split or combination, as applicable;

$CR_{(1)}$ = the conversion rate in effect immediately after the open of business on such ex-dividend date or effective date;

$OS_{(0)}$ = the number of shares of our common stock outstanding immediately prior to the open of business on such ex-dividend date or effective date; and

$OS_{(1)}$ = the number of shares of our common stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination.

Any adjustment made under this clause (1) shall become effective immediately after the open of business on the ex-dividend date for such dividend or distribution, or immediately after the open of business on the effective date for such share split or share combination. If any dividend or distribution of the type described in this

Table of Contents

clause (1) is declared but not so paid or made, the conversion rate shall be immediately readjusted, effective as of the date our board of directors, or a committee thereof, determines not to pay such dividend or distribution, to the conversion rate that would then be in effect if such dividend or distribution had not been declared.

(2) If we issue to all or substantially all holders of our common stock any rights, options or warrants entitling them for a period of not more than 45 calendar days after the announcement date of such issuance to subscribe for or purchase shares of our common stock, at a price per share less than the average of the last reported sale prices of our common stock for the ten consecutive trading-day period ending on, and including, the trading day immediately preceding the date of announcement of such issuance, the conversion rate will be increased based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{OS_{(0)} + X}{OS_{(0)} + Y}$$

where,

$CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such issuance;

$CR_{(1)}$ = the conversion rate in effect immediately after the open of business on such ex-dividend date;

$OS_{(0)}$ = the number of shares of our common stock outstanding immediately prior to the open of business on such ex-dividend date;

X = the total number of shares of our common stock issuable pursuant to such rights, options or warrants; and

Y = the number of shares of our common stock equal to the aggregate price payable to exercise such rights, options or warrants divided by the average of the last reported sale prices of our common stock over the ten consecutive trading-day period ending on, and including, the trading day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this clause (2) will be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the open of business on the ex-dividend date for such issuance. To the extent that shares of our common stock are not delivered after the expiration of such rights, options or warrants, the conversion rate shall be decreased to the conversion rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of our common stock actually delivered. If such rights, options or warrants are not so issued, the conversion rate shall be decreased to the conversion rate that would then be in effect if such ex-dividend date for such issuance had not occurred.

For purposes of this clause (2) and the first bullet point under "Conversion upon Specified Corporate Transactions - Certain Distributions" above, in determining whether any rights, options or warrants entitle the holders thereof to subscribe for or purchase shares of our common stock at less than such average of the last reported sale prices for the ten consecutive trading day period ending on, and including, the trading day immediately preceding the date of announcement for such issuance, and in determining the aggregate offering price of such shares of our common stock, there shall be taken into account any consideration received by us for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by our board of directors, or a committee thereof.

(3) If we distribute shares of our capital stock, evidences of our indebtedness, other assets or property of ours or rights, options or warrants to acquire our capital stock or other securities, to all or substantially all holders of our common stock, excluding:

dividends, distributions, rights, options or warrants as to which an adjustment was effected pursuant to clause (1) or (2) above;

Table of Contents

dividends or distributions paid exclusively in cash (as set forth below in clause (4)); and

spin-offs to which the provisions set forth below in this clause (3) shall apply; then the conversion rate will be increased based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{SP_{(0)}}{SP_{(0)} - FMV}$$

where,

$CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such distribution;

$CR_{(1)}$ = the conversion rate in effect immediately after the open of business on such ex-dividend date;

$SP_{(0)}$ = the average of the last reported sale prices of our common stock over the ten consecutive trading-day period ending on, and including, the trading day immediately preceding the ex-dividend date for such distribution; and

FMV = the fair market value (as determined by our board of directors, or a committee thereof) of the shares of capital stock, evidences of indebtedness, assets, property, rights, options or warrants distributed with respect to each outstanding share of our common stock on the ex-dividend date for such distribution.

If our board of directors, or a committee thereof, determines the FMV (as defined above) of any distribution for purposes of this clause (3) by reference to the actual or when-issued trading market for any securities, it will in doing so consider the prices in such market over the same period used in computing the last reported sale prices of our common stock over the ten consecutive trading-day period ending on, and including, the trading day immediately preceding the ex-dividend date for such distribution.

If FMV (as defined above) is equal to or greater than the $SP_{(0)}$ (as defined above), in lieu of the foregoing increase, each holder of a note shall receive, in respect of each \$1,000 principal amount thereof, at the same time and upon the same terms as holders of our common stock, the amount and kind of our capital stock, evidences of our indebtedness, other assets or property of ours or rights, options or warrants to acquire our capital stock or other securities that such holder would have received if such holder owned a number of shares of common stock equal to the conversion rate in effect on the ex-dividend date for the distribution.

Any increase made under the portion of this clause (3) above will become effective immediately after the open of business on the ex-dividend date for such distribution. If such distribution is not so paid or made, the conversion rate shall be decreased to be the conversion rate that would then be in effect if such distribution had not been declared. If such a distribution of rights, options or warrants to acquire our capital stock or other securities is made, to the extent that shares of our capital stock or other securities are not delivered after the expiration of such rights, options or warrants, the conversion rate shall be decreased to the conversion rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of our capital stock or other securities actually delivered.

With respect to an adjustment pursuant to this clause (3) where there has been a payment of a dividend or other distribution on our common stock of shares of capital stock of any class or series, or similar equity interest, of or relating to a subsidiary or other business unit, in each case listed on a national or regional securities exchange (a spin-off) the conversion rate will be increased based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{FMV_{(0)} + MP_{(0)}}{MP_{(0)}}$$

Table of Contents

where,

- $CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such spin-off;
 $CR_{(1)}$ = the conversion rate in effect immediately after the open of business on the ex-dividend date for such spin-off;
 $FMV_{(0)}$ = the average of the last reported sale prices of the capital stock or similar equity interest distributed to holders of our common stock applicable to one share of our common stock (determined for purposes of the definition of last reported sale price as if such capital stock or similar equity interest were our common stock) over the first ten consecutive trading-day period beginning on, and including, the ex-dividend date of the spin-off (the valuation period); and
 $MP_{(0)}$ = the average of the last reported sale prices of our common stock over the valuation period.

The increase to the conversion rate under the preceding paragraph will be determined on the last trading day of the valuation period but will be given effect immediately after the open of business on the ex-dividend date for the spin-off; provided that in respect of any conversion during the valuation period, references in the portion of this clause (3) related to spin-offs to ten trading days shall be deemed replaced with such lesser number of trading days as have elapsed from, and including, the ex-dividend date of such spin-off to, and including, the conversion date in determining the applicable conversion rate. If the ex-dividend date for the spin-off is less than ten trading days prior to, and including, the end of the observation period in respect of any conversion, references in the portion of this clause (3) related to spin-offs to ten trading days shall be deemed replaced, for purposes of calculating the affected daily conversion rates in respect of that conversion, with such lesser number of trading days as have elapsed from, and including, the ex-dividend date for such spin-off to, and including, the last trading day of such observation period. If such spin-off is not made or completed, the conversion rate will be decreased to the conversion rate that would then be in effect if such spin-off had not been declared.

(4) If any cash dividend or distribution is made to all or substantially all holders of our common stock, the conversion rate will be increased based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{SP_{(0)}}{SP_{(0)} - C}$$

where,

- $CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the ex-dividend date for such dividend or distribution;
 $CR_{(1)}$ = the conversion rate in effect immediately after the open of business on the ex-dividend date for such dividend or distribution;
 $SP_{(0)}$ = the last reported sale price of our common stock on the trading day immediately preceding the ex-dividend date for such dividend or distribution; and
 C = the amount in cash per share that we distribute to holders of our common stock.

If C (as defined above) is equal to or greater than 0 $SP_{(0)}$ (as defined above), in lieu of the foregoing increase, each holder of a note shall receive, for each \$1,000 principal amount of notes, at the same time and upon the same terms as holders of shares of our common stock, the amount of cash that such holder would have received if such holder owned a number of shares of our common stock equal to the conversion rate on the ex-dividend date for such cash dividend or distribution.

Any such increase shall become effective immediately after the open of business on the ex-dividend date for such dividend or distribution. If such dividend or distribution is not so paid, the conversion rate shall be

Table of Contents

decreased, effective as of the date our board of directors, or a committee thereof, determines not to make or pay such dividend or distribution, to be the conversion rate that would then be in effect if such dividend or distribution had not been declared.

(5) If we or any of our subsidiaries make a payment in respect of a tender offer or exchange offer for our common stock, and the cash and value of any other consideration included in the payment per share of common stock exceeds the last reported sale price of our common stock on the trading day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer, the conversion rate will be increased based on the following formula:

$$CR_{(1)} = CR_{(0)} \times \frac{AC + (SP_{(1)} \times OS_{(1)})}{OS_{(0)} \times SP_{(1)}}$$

where,

- $CR_{(0)}$ = the conversion rate in effect immediately prior to the open of business on the trading day next succeeding the date such tender or exchange offer expires;
- $CR_{(1)}$ = the conversion rate in effect immediately after the open of business on the trading day next succeeding the date such tender or exchange offer expires;
- AC = the aggregate value of all cash and any other consideration (as determined by our board of directors, or a committee thereof) paid or payable for shares purchased in such tender or exchange offer;
- $OS_{(0)}$ = the number of shares of our common stock outstanding immediately prior to the date such tender or exchange offer expires (prior to giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer);
- $OS_{(1)}$ = the number of shares of our common stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer); and
- $SP_{(1)}$ = the average of the last reported sale prices of our common stock over the ten consecutive trading-day period commencing on, and including, the trading day next succeeding the date such tender or exchange offer expires.

The adjustment to the conversion rate under the preceding paragraph will be determined at the close of business on the tenth trading day immediately following, and including, the trading day next succeeding the date such tender or exchange offer expires but will be given effect immediately after the open of business on the trading day next succeeding the date such tender or exchange offer expires; *provided* that in respect of any conversion within the ten trading days immediately following, and including, the trading day next succeeding the expiration date of any tender or exchange offer, references in this clause (5) to ten trading days shall be deemed replaced with such lesser number of trading days as have elapsed from, and including, the trading day next succeeding the expiration date of such tender or exchange offer to, and including, the conversion date in determining the applicable conversion rate. If the trading day immediately following the date the tender or exchange offer expires is less than ten trading days prior to, and including, the end of the observation period in respect of any conversion, references in this clause (5) to ten trading days shall be deemed replaced, for purposes of calculating the affected daily conversion rates in respect of that conversion, with such lesser number of trading days as have elapsed from, and including, the trading day immediately following the date such tender or exchange offer expires to, and including, the last trading day of such observation period. In the event that we are, or one of our subsidiaries is, obligated to purchase shares of our common stock pursuant to any such tender offer or exchange offer, but we are, or such subsidiary is, permanently prevented by applicable law from effecting any such purchases, or any such purchases are rescinded, then the conversion rate shall be decreased to be the conversion rate which would then be in effect had the increase with respect to such tender or exchange offer been made on the basis of the number of shares actually purchased or exchanged pursuant to such tender offer or

Table of Contents

exchange offer. Except as set forth in the preceding sentence, if the application of this clause (5) to any tender offer or exchange offer would result in a decrease in the conversion rate, no adjustment shall be made for such tender offer or exchange offer under this clause (5).

Notwithstanding the above, certain listing standards of the NYSE may limit the amount by which we may increase the conversion rate pursuant to the events described in clauses (2) through (5) in this section and as described in the section captioned *Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change* below. These standards generally require us to obtain the approval of our shareholders before entering into certain transactions that potentially result in the issuance of 20% or more of our common stock outstanding at the time the notes are issued unless we obtain shareholder approval of issuances in excess of such limitations. In accordance with these listing standards, these restrictions will apply at any time when the notes are outstanding, regardless of whether we then have a class of securities listed on the NYSE. Accordingly, in the event of an increase in the conversion rate above (except as the result of a share split) that would result in the notes, in the aggregate, becoming convertible into shares in excess of such limitations, we will, at our option, either obtain shareholder approval of such issuances or deliver cash in lieu of any shares of our common stock otherwise deliverable upon conversions in excess of such limitations based on the daily VWAP of our common stock on each trading day of the relevant observation period in respect of which, in lieu of delivering shares of our common stock, we deliver cash pursuant to this paragraph.

Notwithstanding the foregoing, if a conversion rate adjustment becomes effective on any ex-dividend date as described above, and a holder that has converted its notes on or after such ex-dividend date and on or prior to the related record date would be treated as the record holder of shares of our common stock as of the related conversion date as described under *Settlement upon Conversion* based on an adjusted conversion rate for such ex-dividend date, then, notwithstanding the foregoing conversion rate adjustment provisions, the conversion rate adjustment relating to such ex-dividend date will not be made for such converting holder. Instead, such holder will be treated as if such holder were the record owner of a number of shares of our common stock equal to the conversion rate on an unadjusted basis, for each \$1,000 principal amount of notes, and participate in the related dividend, distribution or other event giving rise to such adjustment.

Except as stated herein, we will not adjust the conversion rate for the issuance of shares of our common stock or any securities convertible into or exchangeable for shares of our common stock or the right to purchase shares of our common stock or such convertible or exchangeable securities.

Ex-dividend date means the first date on which the shares of our common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from us or, if applicable, from the seller of our common stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market. As used in this section, the *effective date* means the first date on which the shares trade on the applicable exchange or in the applicable market, regular way, reflecting the transaction.

To the extent permitted by law and the rules of the NYSE or any other securities exchange on which any of our securities are then listed, we are permitted to increase the conversion rate of the notes by any amount for a period of at least 20 business days if our board of directors, or a committee thereof, determines that such increase would be in our best interest. We may also (but are not required to) increase the conversion rate to avoid or diminish income tax to holders of our common stock or rights to purchase shares of our common stock in connection with a dividend or distribution of shares (or rights to acquire shares) or similar event.

A holder may, in some circumstances, including a distribution of cash dividends to holders of shares of our common stock, be deemed to have received a distribution subject to U.S. federal income tax as a result of an adjustment or the non-occurrence of an adjustment to the conversion rate. For a discussion of the U.S. federal income tax treatment of an adjustment to the conversion rate, see *Certain U.S. Federal Income Tax Considerations*.

Table of Contents

We do not currently have a rights plan. To the extent that we have a rights plan in effect upon conversion of the notes into common stock, you will receive, in addition to any shares of our common stock received in connection with such conversion, the rights under the rights plan, unless prior to any conversion, the rights have separated from our common stock, in which case, and only in such case, the conversion rate will be adjusted at the time of separation as if we distributed to all holders of our common stock, shares of our capital stock, evidences of indebtedness, assets, property, rights, options or warrants as described in clause (3) above, subject to readjustment in the event of the expiration, termination or redemption of such rights.

The conversion rate will not be adjusted:

upon the issuance of any shares of our common stock pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on our securities and the investment of additional optional amounts in shares of our common stock under any plan;

upon the issuance of any shares of our common stock or options or rights to purchase those shares pursuant to any present or future employee, director or consultant benefit plan or program or employee agreement or arrangement of or assumed by us or any of our subsidiaries;

upon the issuance of any shares of our common stock pursuant to any option, warrant, right or exercisable, exchangeable or convertible security not described in the preceding bullet and outstanding as of the date the notes were first issued (including the 2015 Notes);

for a change solely in the par value of our common stock; or

for accrued and unpaid interest, if any.

Adjustments to the conversion rate will be calculated to the nearest 1/10,000th of a share. No adjustment to the conversion rate will be required unless the adjustment would require an increase or decrease of at least 1% of the conversion rate. However, we will carry forward any adjustments that are less than 1% of the conversion rate that we elect not to make and make such carried-forward adjustments upon (1) each of the 40 days of any observation period with respect any conversion of the notes (or, in the case of physical settlement, any conversion date), (2) the occurrence of a fundamental change (as described under *Fundamental Change Permits Holders to Require Us to Purchase Notes*), (3) maturity and (4) such time as all adjustments that have not been made prior thereto would have the effect of adjusting the conversion rate by at least 1%.

Recapitalizations, Reclassifications and Changes of Our Common Stock

In the case of:

any recapitalization, reclassification or change of our common stock (other than changes resulting from a share split or share combination),

any consolidation, merger or combination involving us,

any sale, lease or other transfer to a third party of our consolidated assets substantially as an entirety, or

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

any statutory share exchange, in each case as a result of which our common stock would be converted into, or exchanged for, stock, other securities or other property or assets (including cash or any combination thereof), then, at and after the effective time of the transaction, the right to convert each \$1,000 principal amount of notes will be changed into a right to convert such principal amount of notes into the kind and amount of shares of stock, other securities, other property or assets (including cash or any combination thereof) that a holder of a number of shares of our common stock equal to the conversion rate immediately prior to such transaction would have owned or been entitled to receive (the reference property) upon such transaction. However, at and after the effective time of the transaction, (i) we will continue to have the right to determine the settlement method upon conversion of notes, as set forth under Settlement upon Conversion and (ii)(x) any amount payable in cash upon conversion of

S-68

Table of Contents

the notes as set forth under Settlement upon Conversion will continue to be payable in cash, (y) any shares of our common stock that we would have been required to deliver upon conversion of the notes as set forth under Settlement upon Conversion will instead be deliverable in the amount and type of reference property that a holder of that number of shares of our common stock would have been entitled to receive in such transaction and (z) the daily VWAP will be calculated based on the value of a unit of reference property that a holder of one share of our common stock would have received in such transaction. If the transaction causes our common stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), the reference property into which the notes will be convertible or used to calculate the daily VWAP, as the case may be, will be deemed to be the weighted average of the types and amounts of consideration received by the holders of our common stock that affirmatively make such an election. We will notify holders of the weighted average as soon as practicable after such determination is made. We will agree in the indenture not to become a party to any such transaction unless its terms are consistent with the foregoing.

Adjustments of Prices

Whenever any provision of the indenture requires us to calculate the last reported sale prices, the daily VWAPs, the daily conversion values or the daily settlement amounts over a span of multiple days (including an observation period and the stock price for purposes of a make-whole fundamental change), our board of directors, or a committee thereof, will make appropriate adjustments to each to account for any adjustment to the conversion rate that becomes effective, or any event requiring an adjustment to the conversion rate where the ex-dividend date of the event occurs, at any time during the period when the last reported sale prices, the daily VWAPs, the daily conversion values or the daily settlement amounts are to be calculated.

Adjustment to Conversion Rate upon Conversion in Connection with a Make-whole Fundamental Change

If a fundamental change (as defined below and determined after giving effect to any and all exceptions to or exclusions from such definition, but without regard to the *proviso* in clause (2) of the definition thereof, a make-whole fundamental change) occurs prior to maturity and a holder elects to convert its notes in connection with such make-whole fundamental change we will, under certain circumstances, increase the conversion rate for the notes so surrendered for conversion by a number of additional shares of common stock (the additional shares), as described below. A conversion of notes will be deemed for these purposes to be in connection with such make-whole fundamental change if the notice of conversion of the notes is received by the conversion agent from, and including, the effective date of the make-whole fundamental change up to, and including, the business day immediately prior to the related fundamental change purchase date (or, in the case of a make-whole fundamental change that would have been a fundamental change but for the *proviso* in clause (2) of the definition thereof, the 35th trading day immediately following the effective date of such make-whole fundamental change).

Upon surrender of notes for conversion in connection with a make-whole fundamental change, we will deliver shares of our common stock, cash or a combination of cash and shares of common stock as described under Conversion Rights Settlement upon Conversion. However, if the consideration for our common stock in any make-whole fundamental change described in clause (2) of the definition of fundamental change is comprised entirely of cash, for any conversion of notes following the effective date of such make-whole fundamental change, the consideration due upon conversion will be an amount of cash per \$1,000 principal amount of converted notes equal to the applicable conversion rate (including any adjustment as described in this section) multiplied by the stock price (as defined below) for the transaction. In such event, the conversion obligation will be determined as of the conversion date and paid to holders in cash on the third business day following the conversion date. We will notify holders of the effective date of any make-whole fundamental change and issue a press release announcing such effective date no later than five business days after such effective date.

Table of Contents

The number of additional shares, if any, by which the conversion rate will be increased will be determined by reference to the table below, based on the date on which the make-whole fundamental change occurs or becomes effective (the effective date), and the price (the stock price) paid (or deemed paid) per share of our common stock in the make-whole fundamental change. If the holders of our common stock receive only cash in a make-whole fundamental change described in clause (2) of the definition of fundamental change, the stock price shall be the cash amount paid per share. Otherwise, the stock price shall be the average of the last reported sale prices of our common stock over the five trading-day period ending on, and including, the trading day immediately preceding the effective date of the make-whole fundamental change.

The stock prices set forth in the column headings of the table below will be adjusted as of any date on which the conversion rate of the notes is otherwise adjusted. The adjusted stock prices will equal the stock prices immediately prior to such adjustment, multiplied by a fraction, the numerator of which is the conversion rate immediately prior to the adjustment giving rise to the stock price adjustment and the denominator of which is the conversion rate as so adjusted. The number of additional shares will be adjusted in the same manner and at the same time as the conversion rate as set forth under Conversion Rate Adjustments.

The following table sets forth the number of additional shares to be added to the conversion rate for each stock price and effective date set forth below:

Effective Date	Stock Price									
	\$30.16	\$35.00	\$40.72	\$45.00	\$50.00	\$60.00	\$70.00	\$80.00	\$90.00	\$100.00
April 17, 2013	8.5960	6.8136	5.1176	4.2118	3.4183	2.3604	1.7112	1.2868	0.9953	0.7871
October 15, 2014	8.5960	6.6754	4.8829	3.9430	3.1337	2.0839	1.4637	1.0725	0.8123	0.6315
October 15, 2015	8.5960	6.5077	4.6399	3.6770	2.8616	1.8323	1.2471	0.8913	0.6623	0.5077
October 15, 2016	8.5960	6.2476	4.2902	3.3054	2.4916	1.5057	0.9778	0.6748	0.4895	0.3697
October 15, 2017	8.5960	5.8383	3.7674	2.7654	1.9712	1.0761	0.6464	0.4244	0.3005	0.2257
October 15, 2018	8.5960	5.1531	2.9046	1.9039	1.1853	0.5090	0.2650	0.1683	0.1234	0.0981
October 15, 2019	8.5960	4.0111	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact stock prices and effective dates may not be set forth in the table above, in which case

if the stock price is between two stock prices in the table or the effective date is between two effective dates in the table, the number of additional shares will be determined by a straight-line interpolation between the number of additional shares set forth for the higher and lower stock prices or the earlier and later effective dates based on a 365-day year, as applicable;

if the stock price is greater than \$100.00 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate; and

if the stock price is less than \$30.16 per share (subject to adjustment in the same manner as the stock prices set forth in the column headings of the table above), no additional shares will be added to the conversion rate.

Notwithstanding the foregoing, in no event will the total number of shares of our common stock issuable upon conversion exceed 33.1564 per \$1,000 principal amount of notes, subject to adjustment in the same manner as the conversion rate as set forth under Conversion Rate Adjustments, and subject to our compliance with the listing standards of the NYSE, as described above under Conversion Rate Adjustments.

Our obligation to satisfy the additional shares requirement could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness and equitable remedies.

An increase in the conversion rate for notes as a result of a make-whole fundamental change may also be treated as a distribution subject to U.S. federal income tax as a dividend. See Certain U.S. Federal Income Tax Considerations.

Table of Contents

Fundamental Change Permits Holders to Require Us to Purchase Notes

If a fundamental change (as defined below in this section) occurs at any time, you will have the right, at your option, to require us to purchase for cash all of your notes, or any portion of the principal amount thereof that is equal to \$1,000 or an integral multiple of \$1,000. The price we are required to pay is equal to 100% of the principal amount of the notes to be purchased plus accrued and unpaid interest, if any, up to but excluding the fundamental change purchase date (unless the fundamental change purchase date is after a record date and on or prior to the interest payment date to which such record date relates, in which case we will instead pay the full amount of accrued and unpaid interest, if any, to the holder of record on such record date and the fundamental change purchase price will be equal to 100% of the principal amount of the notes to be purchased). The fundamental change purchase date will be a date specified by us that is not less than 15 or more than 35 calendar days following the date of our fundamental change notice as described below. Any notes purchased by us will be paid for in cash.

A fundamental change will be deemed to have occurred at the time after the notes are originally issued that any of the following occurs:

(1) a person or group within the meaning of Section 13(d) of the Exchange Act, other than us, our subsidiaries and our and their employee benefit plans, has become the direct or indirect beneficial owner, as defined in Rule 13d-3 under the Exchange Act, of shares of our common equity representing more than 50% of the voting power of our common equity; or

(2) consummation of (A) any recapitalization, reclassification or change of our common stock (other than changes resulting from a subdivision or combination or changes solely in par value) as a result of which our common stock would be converted into, or exchanged for, stock, other securities, other property or assets or (B) any share exchange, consolidation or merger involving us pursuant to which our common stock will be converted into cash, securities or other property or any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of us and our subsidiaries, taken as a whole, to any person other than one of our subsidiaries; *provided, however*, that a transaction where the holders of all classes of our common equity immediately prior to such transaction that is a share exchange, consolidation or merger (each such holder, a pre-transaction holder) own, directly or indirectly, more than 50% of all classes of common equity of the continuing or surviving corporation or transferee or the parent thereof immediately after such event shall not be a fundamental change, so long as the proportion of the respective ownership of each pre-transaction holder does not substantially change solely pursuant to the terms of such transaction; or

(3) our shareholders approve any plan or proposal for our liquidation or dissolution; or

(4) our common stock (or other common stock underlying the notes) ceases to be listed or quoted on any of the NYSE, the NASDAQ Global Select Market or the NASDAQ Global Market (or any of their respective successors); or

(5) the first day on which a majority of the members of our board of directors does not consist of continuing directors.

A transaction or transactions described in clause (1) or (2) above will not constitute a fundamental change, however, if at least 90% of the consideration received or to be received by our common stockholders, excluding cash payments for fractional shares, in connection with such transaction or transactions consists of shares of common stock that are listed or quoted on any of the NYSE, the NASDAQ Global Select Market or the NASDAQ Global Market (or any of their respective successors) or will be so listed or quoted when issued or exchanged in connection with such transaction or transactions (these securities being referred to as publicly traded securities) and as a result of this transaction or transactions the notes become convertible into such publicly traded securities, excluding cash payments for fractional shares (subject to the provisions set forth above under Conversion Rights Settlement upon Conversion).

Table of Contents

Continuing directors means (i) individuals who on the date of original issuance of the notes constituted our board of directors and (ii) any new directors whose election to our board of directors or whose nomination for election by our shareholders was approved by at least a majority of our directors then still in office (or a duly constituted committee thereof), either who were directors on the date of original issuance of the notes or whose election or nomination for election was previously so approved.

On or before the tenth day after the occurrence of a fundamental change, we will provide to all holders of the notes and the trustee and paying agent a notice of the occurrence of the fundamental change and of the resulting purchase right. Such notice shall state, among other things:

the events causing a fundamental change;

the effective date of the fundamental change;

the last date on which a holder may exercise the repurchase right;

the fundamental change purchase price;

the fundamental change purchase date;

the name and address of the paying agent and the conversion agent, if applicable;

the conversion rate, if applicable, and any adjustments to the applicable conversion rate;

if applicable, that the notes with respect to which a fundamental change purchase notice has been delivered by a holder may be converted only if the holder withdraws the fundamental change purchase notice in accordance with the terms of the indenture; and

the procedures that holders must follow to require us to purchase their notes.

Simultaneously with providing such notice, we will issue a press release containing this information or publish the information on our website or through such other public medium as we may use at that time.

To exercise the fundamental change purchase right you must deliver to the paying agent a duly completed written purchase notice in the form entitled Form of Fundamental Change Purchase Notice on the reverse side of the notes on or before the close of business on the business day immediately preceding the fundamental change purchase date. You must also deliver, at any time after you deliver such notice, the notes to be purchased, duly endorsed for transfer, or, if the notes are in global form, you must comply with DTC's procedures for surrendering interests in global notes. Your purchase notice must state:

if certificated, the certificate numbers of your notes to be delivered for purchase;

the portion of the principal amount of notes to be purchased, which must be \$1,000 or an integral multiple thereof; and

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

that the notes are to be purchased by us pursuant to the applicable provisions of the notes and the indenture. You may withdraw any purchase notice (in whole or in part) by a written notice of withdrawal delivered to the paying agent prior to the close of business on the business day immediately preceding the fundamental change purchase date. If the notes are in global form, you must comply with the relevant procedures of DTC. The notice of withdrawal shall state:

the principal amount of the withdrawn notes;

if certificated, the certificate numbers of the withdrawn notes; and

the principal amount, if any, which remains subject to the purchase notice, which must be \$1,000 or an integral multiple thereof.

S-72

Table of Contents

We will be required to purchase the notes on the fundamental change purchase date. You will receive payment of the fundamental change purchase price on the later of (i) the fundamental change purchase date and (ii) the time of book-entry transfer or the delivery of the notes. If the paying agent holds money sufficient to pay the fundamental change purchase price of the notes for which holders have delivered and not withdrawn purchase notices on the fundamental change purchase date, then:

the notes will cease to be outstanding and interest will cease to accrue (whether or not book-entry transfer of the notes is made and whether or not the notes are delivered to the paying agent); and

all book-entry other rights of the holder will terminate (other than the right to receive the fundamental change purchase price upon delivery or transfer of the notes).

In connection with any purchase offer pursuant to a fundamental change purchase notice, we will, if required:

comply with the provisions of the tender offer rules under the Exchange Act that may then be applicable; and

file a Schedule TO or any other required schedule under the Exchange Act.

No notes may be purchased by us on any date at the option of holders upon a fundamental change if the principal amount of the notes has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a default by us in the payment of the fundamental change purchase price with respect to such notes).

The purchase rights of the holders upon a fundamental change could discourage a potential acquirer of us. The fundamental change purchase feature, however, is not the result of management's knowledge of any specific effort to obtain control of us by any means or part of a plan by management to adopt a series of anti-takeover provisions. The term fundamental change is limited to specified transactions and may not include other events that might adversely affect our financial condition. In addition, the requirement that we offer to purchase the notes upon a fundamental change may not protect holders in the event of a highly leveraged transaction, reorganization, merger or similar transaction involving us.

The definition of fundamental change includes a phrase relating to the sale, lease or other transfer of all or substantially all of our consolidated assets. There is no precise, established definition of the phrase substantially all under applicable law. Accordingly, the ability of a holder of the notes to require us to purchase its notes as a result of the sale, lease or other transfer of less than all of our consolidated assets may be uncertain.

In addition, certain circumstances involving a significant change in the composition of our board, including in connection with a proxy contest where our board does not endorse a dissident slate of directors but approves them as continuing directors as defined above may not constitute a fundamental change. In the event of any such significant change in the composition of our board where the board has approved the new directors as continuing directors, the holders may not have the right to require us to repurchase the notes and would not be entitled to an increase in the conversion rate upon conversion as described above. See Risk Factors We are required to repurchase the notes only upon the occurrence of a set of events included in the indenture's definition of fundamental change, and that definition does not include all events or transactions that could adversely affect the trading price of the notes and our ability to make payments on the notes.

If a fundamental change were to occur, we may not have enough funds to pay the fundamental change purchase price. In addition, the occurrence of a fundamental change would cause a default under our revolving credit facility, and our ability to repurchase the notes for cash may be limited by restrictions on our ability to obtain funds for such repurchase through dividends from our subsidiaries, the terms of our future borrowing arrangements or otherwise. See Risk Factors Risks Related to the Notes We may not have the ability to raise the funds necessary to settle conversions of the notes for cash or to purchase the notes upon a fundamental change. If we fail to purchase the notes when required following a fundamental change, we will be in default

Table of Contents

under the indenture. In addition, we have, and may in the future incur, other indebtedness with similar change in control provisions permitting our holders to accelerate or to require us to purchase our indebtedness upon the occurrence of similar events or on some specific dates.

Consolidation, Merger and Sale of Assets

The indenture provides that we shall not consolidate with or merge with or into, or sell, convey or transfer (by lease, assignment, sale or otherwise) all or substantially all of our properties and assets to, another person, unless (i) the resulting, surviving or transferee person (if not us) is a corporation organized and validly existing under the laws of the United States, any state thereof or the District of Columbia, and such person (if not us) expressly assumes by supplemental indenture all of our obligations under the notes and the indenture; (ii) if as a result of such transaction the notes become convertible into common stock or other securities issued by a third party (subject to the provisions set forth above under **Conversion Rights Settlement upon Conversion**), such third party fully and unconditionally guarantees all obligations of ours or such successor under the notes and the supplemental indenture, unless such guarantee is not required for any shares of our common stock issuable upon conversion of the notes to be freely tradable under U.S. securities law; and (iii) immediately after giving effect to such transaction, no default or event of default has occurred and is continuing under the indenture. Upon any such consolidation, merger or sale, conveyance, transfer or lease, the resulting, surviving or transferee corporation (if not us) shall succeed to, and may exercise every right and power of ours under the indenture and the notes and, except in the case of any such lease, we shall be discharged from our obligations under the indenture and the notes.

Although these types of transactions are permitted under the indenture, certain of the foregoing transactions could constitute a fundamental change permitting each holder to require us to purchase the notes of such holder as described above.

An assumption by any person of our obligations under the notes and the indenture might be deemed for U.S. federal income tax purposes to be an exchange of the notes for new notes by the holders thereof, resulting in recognition of gain or loss for such purposes and possibly other adverse tax consequences to the holders. Holders should consult their own tax advisors regarding the tax consequences of such an assumption.

Events of Default

Each of the following is an event of default:

- (1) default in any payment of interest (including additional interest, if any) on any note when due and payable and the default continues for a period of 30 days;
- (2) default in the payment of principal of any note when due and payable at its stated maturity, upon any required purchase in connection with a fundamental change, upon declaration of acceleration or otherwise;
- (3) our failure to comply with our obligation to convert the notes in accordance with the indenture upon exercise of a holder's conversion right and such failure continues for a period of ten calendar days following the date on which the conversion consideration was payable or deliverable, as the case may be, in connection with such conversion;
- (4) our failure to give a fundamental change notice as described under **Fundamental Change Permits Holders to Require Us to Purchase Notes** or notice of a specified corporate transaction as described under **Conversion Rights Conversion upon Specified Corporate Transactions**, in each case when due and such failure continues for a period of ten calendar days following the date on which such notice was required to be delivered under the indenture;
- (5) our failure to comply with our obligations under **Consolidation, Merger and Sale of Assets**;

Table of Contents

(6) our failure for 60 days after written notice from the trustee or the holders of at least 25% in principal amount of the notes then outstanding has been received to comply with any of our other agreements contained in the notes or the indenture;

(7) default by us or any of our subsidiaries with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of \$50.0 million in the aggregate of ours and/or of any such subsidiary, whether such indebtedness now exists or shall hereafter be created (i) resulting in such indebtedness becoming or being declared due and payable (unless such declaration has been rescinded) or (ii) constituting a failure to pay the principal of or interest on any such indebtedness when due and payable at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise;

(8) certain events of bankruptcy, insolvency, or reorganization of us, any of our subsidiaries that is a significant subsidiary (as defined in Article 1, Rule 1-02 of Regulation S-X), or any group of our subsidiaries that in the aggregate would constitute such a significant subsidiary;

(9) a final judgment for the payment of \$10.0 million or more (excluding any amounts covered by insurance) rendered against us or any of our significant subsidiaries, which judgment is not discharged or stayed within 60 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished; or

(10) except as permitted by the indenture, any subsidiary guarantee shall be held in any judicial proceeding to be unenforceable or invalid or shall cease for any reason to be in full force and effect, or any subsidiary guarantor, or any person authorized and acting on its behalf, shall deny or disaffirm its obligation under the subsidiary guarantee.

If an event of default occurs and is continuing, the trustee by notice to us, or the holders of at least 25% in principal amount of the outstanding notes by written notice to us and the trustee, may, and the trustee at the request of such holders shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the notes to be due and payable. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately. In case of certain events of bankruptcy, insolvency or reorganization, involving us, a significant subsidiary or any group of our subsidiaries that in the aggregate would constitute such a significant subsidiary, 100% of the principal of and accrued and unpaid interest, if any, on the notes will automatically become due and payable.

Notwithstanding the foregoing, the indenture will provide that, if we so elect, the sole remedy during the period described below for an event of default relating to our failure to comply with our obligations as set forth under Reports below, will after the occurrence of such an event of default consist exclusively of the right to receive additional interest on the notes at a rate equal to 0.25% per annum of the principal amount of the notes outstanding for each day (x) during the 90-day period beginning on, and including, the occurrence of such an event of default and (y) on which such event of default is continuing.

If we so elect, such additional interest will be payable in the same manner and on the same dates as the stated interest payable on the notes. On the 91st day after such event of default (if the event of default relating to the reporting obligations is not cured or waived prior to such 91st day), the notes will be subject to acceleration as provided above. The provisions of the indenture described in this paragraph will not affect the rights of holders of notes in the event of the occurrence of any other event of default. In the event we do not elect to pay the additional interest following an event of default in accordance with the immediately preceding paragraph, the notes will be immediately subject to acceleration as provided above.

In order to elect to pay the additional interest as the sole remedy during the first 90 days after the occurrence of an event of default relating to the failure to comply with the reporting obligations in accordance with the second preceding paragraph, we must notify all holders of notes, the trustee and the paying agent of such election prior to the beginning of such 90-day period. Upon our failure to timely give such notice, the notes will be immediately subject to acceleration as provided above.

Table of Contents

If any portion of the amount payable on the notes upon acceleration is considered by a court to be unearned interest, the court could disallow recovery of any such portion.

The holders of a majority of the aggregate principal amount of the outstanding notes may, by notice to us and the trustee, (1) waive all past defaults, except with respect to (x) non-payment of principal or interest (including the fundamental change purchase price, if applicable), (y) the failure to deliver the consideration due upon conversion or (z) any provision of the indenture that cannot be modified or amended without the consent of the holder of each outstanding note affected, and (2) rescind and annul any consequence of any such default, including acceleration, if (i) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (ii) all existing events of default, other than the nonpayment of the principal of and interest on the notes that have become due solely by such declaration of acceleration, have been cured or waived.

Each holder shall have the right to receive payment or delivery, as the case may be, of:

the principal (including the fundamental change purchase price, if applicable) of;

accrued and unpaid interest, if any, on; and

the consideration due upon conversion of, its notes, on or after the respective due dates expressed or provided for in the indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, and such right to receive such payment or delivery, as the case may be, on or after such respective dates shall not be impaired or affected without the consent of such holder.

Subject to the provisions of the indenture relating to the duties of the trustee, if an event of default occurs and is continuing, the trustee will be under no obligation to exercise any of the rights or powers under the indenture at the request or direction of any of the holders unless such holders have offered to the trustee indemnity or security reasonably satisfactory to it against any loss, liability or expense. Except to enforce the right to receive payment of principal or interest, when due, or the right to receive payment or delivery of the consideration due upon conversion, no holder may pursue any remedy with respect to the indenture or the notes unless:

- (1) such holder has previously given the trustee written notice that an event of default is continuing;
- (2) holders of at least 25% in principal amount of the outstanding notes have requested the trustee to pursue the remedy;
- (3) such holders have offered the trustee security or indemnity reasonably satisfactory to it against any loss, liability or expense;
- (4) the trustee has not complied with such request within 60 days after the receipt of the request and the offer of security or indemnity; and
- (5) the holders of a majority in principal amount of the outstanding notes have not given the trustee a direction that, in the opinion of the trustee, is inconsistent with such request within such 60-day period.

Subject to certain restrictions, the holders of a majority in principal amount of the outstanding notes are given the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or of exercising any trust or power conferred on the trustee.

The indenture provides that in the event an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of its own affairs. Prior to taking any action under the indenture, the trustee will be entitled to indemnification reasonably satisfactory to it against all losses, liability, claims and expenses caused by taking such action.

The indenture provides that if a default occurs and is continuing and is actually known to the trustee, the trustee must mail to each holder notice of the default within 90 days after it occurs. Except in the case of a

Table of Contents

default in the payment of principal of or interest on any note or a default in the payment or delivery of the consideration due upon conversion, the trustee may withhold notice if and so long as it in good faith determines that withholding notice is in the interests of the holders. In addition, we are required to deliver to the trustee, within 120 days after the end of each fiscal year, an officer's certificate indicating whether the signers thereof know of any default that occurred during the previous year. We are also required to deliver to the trustee, within ten days after the occurrence thereof, written notice of any events which if uncured would constitute certain defaults, their status and what action we are taking or propose to take in respect thereof.

Payments of the fundamental change purchase price, principal and interest that are not made when due will accrue interest per annum at the then-applicable interest rate *plus* one percent from the required payment date.

Modification and Amendment

Subject to certain exceptions, the indenture or the notes may be amended with the consent of the holders of at least a majority in principal amount of the notes then outstanding (including without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes) and, subject to certain exceptions and conditions, any past default or compliance with any provisions may be waived with the consent of the holders of a majority in principal amount of the notes then outstanding (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes). However, without the consent of each holder of an outstanding note affected, no amendment may, among other things:

- (1) reduce the percentage in aggregate principal amount of notes whose holders must consent to an amendment of the indenture or to waive any past default;
- (2) reduce the rate of or extend the stated time for payment of interest on any note;
- (3) reduce the principal of or extend the stated maturity of any note;
- (4) make any change that impairs or adversely affects the conversion rights of any notes;
- (5) reduce the fundamental change purchase price of any note or amend or modify in any manner adverse to the holders of notes our obligation to make such payments, whether through an amendment or waiver of provisions in the covenants, definitions or otherwise;
- (6) make any note payable in a currency other than that stated in the note;
- (7) other than in accordance with the provisions of the indenture, release any subsidiary guarantee;
- (8) change the ranking of the notes;
- (9) impair the right of any holder to receive payment of principal of and interest on such holder's notes on or after the due dates therefor or to institute suit for the enforcement of any payment on or with respect to such holder's notes; or
- (10) make any change in the amendment provisions which require each holder's consent or in the waiver provisions of the indenture.

Without the consent of any holder, we and the trustee may amend the indenture to:

- (1) cure any ambiguity, omission, defect or inconsistency in the indenture;
- (2) provide for the assumption by a successor person of our obligations under the indenture and the notes as described under Consolidation, Merger and Sale of Assets or the assumption by a successor guarantor of the obligations of a subsidiary guarantor under the indenture and its subsidiary guarantee as described under Subsidiary Guarantees ;
- (3) add guarantees with respect to the notes and release any subsidiary guarantor in accordance with the provisions of the indenture;
- (4) secure the notes;

S-77

Table of Contents

- (5) add covenants for the benefit of the holders or surrender any right or power conferred upon us or our subsidiary guarantors;
- (6) make any change that does not adversely affect the rights of holders of the notes;
- (7) provide for the assumption by a successor trustee of the trustee's obligations under the indenture and the notes;
- (8) increase the conversion rate to the extent permitted by law and the rules of the NYSE or any other securities exchange on which any of our securities are then listed, if our board of directors, or a committee thereof, determines that such increase would be in our best interest;
- (9) provide for the conversion of the notes in accordance with the indenture;
- (10) conform the provisions of the indenture to the Description of Notes section in the prospectus supplement as supplemented by any related pricing term sheet; or
- (11) comply with any requirement of the SEC in connection with the qualification of the indenture under the Trust Indenture Act.

The consent of the holders is not necessary under the indenture to approve the particular form of any proposed amendment. It is sufficient if the required number of holders approve the substance of the proposed amendment. After an amendment under the indenture becomes effective, we are required to mail to the holders a notice briefly describing such amendment. However, the failure to give such notice to all the holders, or any defect in the notice, will not impair or affect the validity of the amendment.

Defeasance

The defeasance provisions described under Description of Debt Securities Defeasance of Debt Securities and Certain Covenants in Certain Circumstances in the accompanying prospectus will not apply to the notes.

Discharge

We may satisfy and discharge our obligations under the indenture by delivering to the trustee for cancellation all outstanding notes or by depositing with the trustee or delivering to the holders, as applicable, after the notes have become due and payable, whether at stated maturity, on any fundamental change purchase date, upon conversion or otherwise, cash and, in the case of conversion, cash, shares of our common stock or a combination of cash and shares of our common stock, sufficient to pay all of the outstanding notes or satisfy our conversion obligation, as the case may be, and pay all other sums payable under the indenture by us. Such discharge is subject to terms contained in the indenture.

Calculations in Respect of Notes

We will be responsible for making all calculations called for under the notes, determining amounts to be paid and monitoring any stock price. These calculations include, but are not limited to, determinations of the last reported sale prices of our common stock, daily VWAP, trading price, daily conversion value, daily settlement amount, accrued interest payable on the notes, the make-whole premium, if any, and the conversion rate of the notes. Neither the trustee nor the conversion agent will be charged with knowledge of or have any duties to monitor any measurement period or observation period. We will make all these calculations in good faith and, absent manifest error, our calculations will be final and binding on holders of notes. We will provide a schedule of our calculations to each of the trustee and the conversion agent, and each of the trustee and conversion agent is entitled to rely conclusively upon the accuracy of our calculations without independent verification. The trustee will forward our calculations to any holder of notes upon the written request of that holder.

Table of Contents

Reports

The indenture provides that any documents or reports that we are required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act must be filed by us with the trustee within 30 days after the same are required to be filed with the SEC (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Documents filed by us with the SEC via the EDGAR system will be deemed to be filed with the trustee as of the time such documents are filed via EDGAR, *provided, however*, that the trustee shall have no responsibility whatsoever to determine if any such filing has occurred.

Trustee

The Bank of New York Mellon Trust Company, N.A. is the trustee, registrar, paying agent and conversion agent. The Bank of New York Mellon Trust Company, N.A., in each of its capacities, including without limitation as trustee, registrar, paying agent and conversion agent, assumes no responsibility for the accuracy or completeness of the information concerning us or our affiliates or any other party contained in this document or the related documents or for any failure by us or any other party to disclose events that may have occurred and may affect the significance or accuracy of such information.

We may maintain banking relationships in the ordinary course of business with the trustee and its affiliates.

Governing Law

The indenture provides that it and the notes will be governed by, and construed in accordance with, the laws of the State of New York.

No Shareholder Rights for Holders of Notes

Holders of the notes, as such, will not have any rights as our shareholders (including, without limitation, voting rights and rights to receive any dividends or other distributions on our common stock).

Book-entry, Settlement and Clearance

The Global Notes

The notes will be initially issued in the form of one or more registered notes in global form, without interest coupons (the *global notes*). Upon issuance, each of the global notes will be deposited with the trustee as custodian for DTC and registered in the name of Cede & Co., as nominee of DTC.

Ownership of beneficial interests in a global note will be limited to persons who have accounts with DTC (*DTC participants*) or persons who hold interests through DTC participants. We expect that under procedures established by DTC:

upon deposit of a global note with DTC's custodian, DTC will credit portions of the principal amount of the global note to the accounts of the DTC participants designated by the underwriters; and

ownership of beneficial interests in a global note will be shown on, and transfer of ownership of those interests will be effected only through, records maintained by DTC (with respect to interests of DTC participants) and the records of DTC participants (with respect to other owners of beneficial interests in the global note).

Beneficial interests in global notes may not be exchanged for notes in physical, certificated form except in the limited circumstances described below.

Table of Contents

Book-entry Procedures for the Global Notes

All interests in the global notes will be subject to the operations and procedures of DTC. We provide the following summary of those operations and procedures solely for the convenience of investors. The operations and procedures of DTC are controlled by that settlement system and may be changed at any time. Neither we nor the underwriters are responsible for those operations or procedures.

DTC has advised us that it is:

a limited purpose trust company organized under the laws of the State of New York;

a banking organization within the meaning of the New York State Banking Law;

a member of the Federal Reserve System;

a clearing corporation within the meaning of the Uniform Commercial Code; and

a clearing agency registered under Section 17A of the Exchange Act.

DTC was created to hold securities for its participants and to facilitate the clearance and settlement of securities transactions between its participants through electronic book-entry changes to the accounts of its participants. DTC's participants include securities brokers and dealers, including the underwriters; banks and trust companies; clearing corporations and other organizations. Indirect access to DTC's system is also available to others such as banks, brokers, dealers and trust companies; these indirect participants clear through or maintain a custodial relationship with a DTC participant, either directly or indirectly. Investors who are not DTC participants may beneficially own securities held by or on behalf of DTC only through DTC participants or indirect participants in DTC.

So long as DTC's nominee is the registered owner of a global note, that nominee will be considered the sole owner or holder of the notes represented by that global note for all purposes under the indenture. Except as provided below, owners of beneficial interests in a global note:

will not be entitled to have notes represented by the global note registered in their names;

will not receive or be entitled to receive physical, certificated notes; and

will not be considered the owners or holders of the notes under the indenture for any purpose, including with respect to the giving of any direction, instruction or approval to the trustee under the indenture.

As a result, each investor who owns a beneficial interest in a global note must rely on the procedures of DTC to exercise any rights of a holder of notes under the indenture (and, if the investor is not a participant or an indirect participant in DTC, on the procedures of the DTC participant through which the investor owns its interest).

Payments of principal and interest with respect to the notes represented by a global note will be made by the trustee to DTC's nominee as the registered holder of the global note. Neither we nor the trustee will have any responsibility or liability for the payment of amounts to owners of beneficial interests in a global note, for any aspect of the records relating to or payments made on account of those interests by DTC, or for maintaining, supervising or reviewing any records of DTC relating to those interests.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

Payments by participants and indirect participants in DTC to the owners of beneficial interests in a global note will be governed by standing instructions and customary industry practice and will be the responsibility of those participants or indirect participants and DTC.

Transfers between participants in DTC will be effected under DTC's procedures and will be settled in same-day funds.

S-80

Table of Contents

Certificated Notes

Notes in physical, certificated form will be issued and delivered to each person that DTC identifies as a beneficial owner of the related notes only if:

DTC notifies us at any time that it is unwilling or unable to continue as depository for the global notes and a successor depository is not appointed within 90 days;

DTC ceases to be registered as a clearing agency under the Exchange Act and a successor depository is not appointed within 90 days;

an event of default with respect to the notes has occurred and is continuing and such beneficial owner requests that its notes be issued in physical, certificated form; or

we in our sole discretion determine not to have the notes represented by global notes.

The information in this prospectus supplement concerning DTC and DTC's system has been obtained from sources that we believe to be reliable, but we take no responsibility for its accuracy.

Table of Contents

DESCRIPTION OF COMMON STOCK

Please read the information discussed under the heading "Description of RTI Capital Stock" beginning on page 5 of the accompanying prospectus. Our authorized capital stock consists of 50,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, without par value, the rights and preferences of which may be established from time to time by our board of directors. As of April 9, 2013, 30,501,941 shares of common stock (excluding shares held in treasury) were outstanding. No shares of preferred stock were issued or outstanding as of April 9, 2013.

Listing

Our common stock is listed on the NYSE under the symbol RTI.

Transfer agent and registrar

The transfer agent and registrar for the common stock is Computershare Trust Company, N.A.

CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of certain U.S. federal income tax consequences of the purchase, ownership and disposition of notes and the shares of common stock into which the notes may be converted. This summary deals only with a note or share of common stock held as a capital asset by a holder who purchased the note on original issuance at its initial issue price (generally, the first price at which a substantial portion of the notes are sold for cash to persons other than bond houses, brokers or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). This summary does not deal with special situations, such as:

tax consequences to holders who may be subject to special tax treatment, such as financial institutions, regulated investment companies, real estate investment trusts, tax-exempt entities, insurance companies, retirement plans, dealers in securities or currencies or other persons that elect to use a mark-to-market method of accounting for their securities;

tax consequences to persons holding notes as a part of a hedging, integrated, conversion or constructive sale transaction or a straddle;

tax consequences to U.S. holders (as defined below) of notes or shares of common stock whose functional currency is not the U.S. dollar;

tax consequences to partnerships, other pass-through entities and their investors;

tax consequences to former U.S. citizens or residents of the United States;

alternative minimum tax consequences, if any;

estate or gift tax consequences; and

any state, local or foreign tax consequences.

The discussion below is based upon the provisions of the Internal Revenue Code of 1986, as amended (the Code), U.S. Treasury regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be changed, perhaps retroactively, so as to result in

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

U.S. federal income tax consequences different from those discussed below. This summary does not address all aspects of U.S. federal income taxes and does not deal with all tax consequences that may be relevant to holders in light of their particular circumstances.

If an entity classified as a partnership for U.S. federal income tax purposes holds the notes or common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partnership or partner of a partnership holding the notes or common stock, you should consult your own tax advisors.

S-82

Table of Contents

As used herein, the term "U.S. holder" means a beneficial owner of notes or shares of common stock that is, for U.S. federal income tax purposes:

an individual citizen or resident of the United States;

a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

a trust, if it (i) is subject to the primary supervision of a court within the U.S. and one or more U.S. persons have the authority to control all substantial decisions of the trust or (ii) was in existence and treated as a U.S. person on August 20, 1996, and has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

A "non-U.S. holder" is a beneficial owner of notes or shares of common stock that is an individual, or is treated for U.S. federal income tax purposes as a corporation, estate or trust and is not a U.S. holder.

IF YOU ARE CONSIDERING THE PURCHASE OF NOTES, YOU SHOULD CONSULT YOUR OWN TAX ADVISORS CONCERNING THE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSEQUENCES TO YOU RELATING TO THE PURCHASE, OWNERSHIP AND DISPOSITION OF NOTES AND SHARES OF COMMON STOCK THAT MAY BE RECEIVED UPON CONVERSION OF NOTES IN LIGHT OF YOUR PARTICULAR SITUATION.

Consequences to U.S. holders

Payment of Interest

The notes will not be issued with more than a *de minimis* amount of original issue discount. Accordingly, interest on a note will generally be taxable to you as ordinary income at the time it is paid or accrued in accordance with your usual method of accounting for tax purposes.

Additional Payments

We may be required to pay additional amounts to you in certain circumstances described above under the heading "Description of Notes - Events of Default." U.S. Treasury regulations provide special rules for contingent payment debt instruments which, if applicable, could cause the timing, amount and character of your income, gain or loss with respect to notes to be different from those described below. For purposes of determining whether a debt instrument is a contingent payment debt instrument, remote or incidental contingencies are ignored. Because we believe that the likelihood that we will be obligated to make any such additional payments is remote or any such amounts would be incidental, we intend to take the position (and this discussion assumes) that the notes will not be treated as contingent payment debt instruments due to the possibility of our paying such additional amounts. Our treatment will be binding on you, unless you disclose differing treatment in a statement attached to your timely filed U.S. federal income tax return for the taxable year during which the notes were acquired by you. However, our treatment is not binding on the U.S. Internal Revenue Service (the "IRS"). If the IRS were to challenge our treatment, you might be required to accrue income on notes in excess of stated interest and to treat as ordinary income, rather than capital gain, any gain recognized on the disposition of notes before the resolution of the contingencies. In any event, if we actually make any such additional payment, the timing, amount and character of your income, gain or loss with respect to the notes may be affected. The remainder of this discussion assumes that the notes will not be treated as contingent payment debt instruments.

Sale, Exchange or Other Disposition of Notes

Except as provided below under "Consequences to U.S. Holders - Exchange of Notes into Cash or Common Stock and Cash," you will generally recognize gain or loss upon the sale, exchange or other taxable disposition of

Table of Contents

a note equal to the difference between the amount realized upon the sale, exchange or other disposition and your adjusted tax basis in the note. The amount that you realize upon the sale, exchange or other disposition of the note will generally be the amount of cash and the fair market value of any non-cash property that you receive as consideration for the note. For these purposes, the amount realized does not include any amount attributable to accrued interest, which amount would be treated as interest as described under *Payment of Interest* above. Your adjusted tax basis in a note will generally be equal to the amount you paid for the note. Any gain or loss recognized on a taxable disposition of the note will be capital gain or loss. If you are an individual and have held the note for more than one year, such capital gain will be subject to reduced rates of taxation. Whether you are an individual, a trust, an estate or a corporation, your ability to deduct capital losses may be limited.

Conversion of Notes into Common Stock; Exchange of Notes into Cash or Common Stock and Cash

Except to the extent of (i) cash received in lieu of a fractional share of our common stock, which will be taxed as described below, and (ii) shares of our common stock attributable to accrued interest not previously included in income, which will be taxable as interest income, you will not recognize any income, gain or loss on the conversion of a note solely into shares of our common stock. The aggregate tax basis of the shares of our common stock received upon a conversion of a note, other than to the extent received with respect to accrued interest not previously included in income, will equal the adjusted tax basis of such note (reduced by the amount allocable to any fractional share). The holding period for shares of our common stock received upon a conversion generally will include the period during which you held the converted note.

Cash received in lieu of a fractional share of our common stock generally will be treated as a payment in exchange for such fractional share. Upon conversion of notes, the amount of gain or loss on the deemed sale of a fractional share will be equal to the difference between the amount of cash received by you in respect of such fractional share and the portion of your adjusted tax basis in the note that is allocable to the fractional share. Your holding period in such deemed fractional share will generally include the period during which you held the note.

The tax basis of the shares of our common stock received upon a conversion with respect to accrued interest not previously included in income will equal the fair market value of such shares. To the extent any shares of our common stock issued upon a conversion are allocable to accrued interest, however, the holding period for such shares may commence on the day following the date of delivery of such shares.

If you receive a combination of stock and cash (other than cash attributable to a fractional share of common stock), the tax treatment of the conversion is not entirely certain. The fair market value of common stock and cash received with respect to accrued interest will be taxable as ordinary income to the extent not previously includible in income. If the conversion is treated as a recapitalization, you will recognize gain, if any, in an amount equal to the lesser of (1) the cash received or (2) the excess of the fair market value of the common stock and cash received over your adjusted tax basis in the note at the time of conversion, in each case other than any common stock and cash received with respect to accrued interest, and you will not be able to recognize a loss. In such event, your tax basis in the common stock, other than to the extent such stock is received with respect to accrued interest, generally would be equal to your adjusted tax basis in the note at the time of conversion (excluding tax basis allocable to any fractional share as described in the second preceding paragraph), increased by the amount of gain recognized, if any (other than with respect to a fractional share), and reduced by the amount of cash received (other than cash received with respect to accrued interest or a fractional share). Your tax basis in the common stock received upon a conversion with respect to accrued interest would equal the fair market value of such stock. Cash received in lieu of a fractional share of common stock generally would be treated in the same manner as described in the second preceding paragraph. Because the notes have a five-year term, it is likely that the conversion of the notes will qualify as a recapitalization for United States federal income tax purposes.

However, if for any reason the conversion is not treated as a recapitalization, your receipt of cash and common stock upon conversion may be treated as a sale of a portion of the note for cash and a conversion of the

Table of Contents

remainder of the note. In such event, the cash received would be treated as proceeds from a sale of a portion of the note, as described above under *Sale, Exchange or Other Disposition of Notes*, and the common stock would be treated as received upon a conversion of a portion of the note, as described above in the fourth preceding paragraph. Under this alternative, your tax basis in the note would be allocated between the portion treated as sold for cash and the portion treated as converted into common stock (including any fractional share treated as received) on the basis of the relative fair market value of each portion.

Under either alternative method of treating the conversion of a note for a combination of stock and cash, your holding period for the common stock generally would include your holding period for the converted note. To the extent that any common stock is allocable to accrued interest, however, your holding period for such common stock may commence on the day following the date the common stock is issued to you. You should consult your own tax advisors regarding the tax consequences of receiving a combination of common stock and cash upon conversion.

If you receive solely cash in exchange for your notes upon conversion, your gain or loss will be determined in the same manner as if you disposed of the note in a taxable disposition (as described above under *Sale, Exchange or Other Disposition of Notes*).

Constructive Distributions

The conversion rate of the notes will be adjusted in certain circumstances as described in *Description of Notes Conversion Rights Conversion Rate Adjustments*. Under Section 305(c) of the Code, adjustments (or failures to make adjustments) that have the effect of increasing your proportionate interest in our assets or earnings may in some circumstances result in a deemed distribution to you. Adjustments to the conversion rate made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interest of the holders of notes, however, will generally not be considered to result in a deemed distribution to you. Certain of the possible conversion rate adjustments provided in notes (including, without limitation, adjustments in respect of taxable dividends to holders of our common stock) will not qualify as being pursuant to a bona fide reasonable adjustment formula. If such adjustments are made, you will be deemed to have received a distribution even though you have not received any cash or property as a result of such adjustments. Any deemed distributions will be taxable as described in

Dividends below, except that it is not clear whether a constructive dividend deemed paid to you would be eligible for the preferential rates of U.S. federal income tax applicable in respect of certain dividends received.

Dividends

Distributions, if any, made on our common stock generally will be included in the income of the holder of such common stock as ordinary dividend income to the extent of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions in excess of our current and accumulated earnings and profits will be treated as a return of capital to the extent of your adjusted tax basis in the common stock and thereafter as capital gain from the sale or exchange of such common stock. Dividends received by a corporation may be eligible for a dividends-received deduction, subject to applicable limitations.

Sale, Exchange or Other Taxable Disposition of Common Stock

Upon the sale, taxable exchange or other taxable disposition of our common stock, you generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon such taxable disposition and (ii) your adjusted tax basis in the common stock. Such capital gain or loss will be long-term gain or loss if your holding period in the common stock is more than one year at the time of the taxable disposition. Long-term capital gains recognized by individuals will generally be subject to a reduced rate of U.S. federal income tax. The deductibility of capital losses by all U.S. holders is subject to limitations.

Table of Contents

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of interest on the notes and dividends on shares of common stock and to the proceeds of a sale or other disposition of a note or share of common stock paid to you, unless you are an exempt recipient. Backup withholding will apply to those payments if you fail to provide your taxpayer identification number or otherwise fail to comply with applicable requirements to establish an exemption. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against your U.S. federal income tax liability provided the required information is furnished to the IRS in a timely manner.

Consequences to Non-U.S. Holders

Payments on Notes

Subject to the discussion of backup withholding below, U.S. federal income and withholding taxes generally will not apply to any payment to you of principal or interest with respect to notes, provided that, in the case of any amount treated as payments of interest:

such amount is not effectively connected with your conduct of a trade or business in the United States;

you do not actually or constructively own 10% or more of the total combined voting power of all classes of our stock that are entitled to vote within the meaning of Section 871(h)(3) of the Code;

you are not a controlled foreign corporation that is related to us (actually or constructively) through stock ownership; and

(a) you provide your name and address, and certify, under penalties of perjury, that you are not a United States person (which certification may be made on an IRS Form W-8BEN (or other applicable form)) or (b) you hold your notes through certain intermediaries or pass-through entities, and you and they satisfy the certification requirements of applicable U.S. Treasury regulations. Special certification rules apply to non-U.S. holders that are pass-through entities.

If you cannot satisfy the requirements described above, payments of interest will be subject to the 30% U.S. federal withholding tax, unless you provide the applicable withholding agent with a properly executed (1) IRS Form W-8BEN (or other applicable form) claiming an exemption from or reduction in withholding under an applicable income tax treaty or (2) IRS Form W-8ECI (or other applicable form) stating that interest paid on notes is not subject to withholding tax because it is effectively connected with your conduct of a trade or business in the United States. If you are engaged in a trade or business in the United States and interest on notes is effectively connected with the conduct of that trade or business and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment, then (although you will be exempt from the 30% withholding tax provided the certification requirements discussed above in clause (2) of the preceding sentence are satisfied) you will generally be subject to U.S. federal income tax on that interest on a net income basis in the same manner as if you were a U.S. holder. In addition, if you are a foreign corporation, you may be subject to a branch profits tax equal to 30% (or such lower rate as may be specified by an applicable income tax treaty) of the earnings and profits that are effectively connected with a trade or business in the United States that are actually or deemed to be withdrawn from such trade or business during the taxable year.

Dividends and Constructive Distributions

Any dividends paid to you with respect to the shares of common stock (and any deemed dividends resulting from certain adjustments, or failure to make adjustments, to the conversion rate, see *Consequences to U.S. Holders Constructive Distributions* above) will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. In the case of any deemed dividend, it is possible that the U.S. federal tax on this dividend would be withheld from interest, shares of your common stock or sales proceeds subsequently paid or credited to you. However, dividends that are effectively connected with your

Table of Contents

conduct of a trade or business within the United States and, where a tax treaty applies, are attributable to a U.S. permanent establishment that you maintain, are not subject to the withholding tax, but instead are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates. Certain certification requirements and disclosure requirements must be complied with in order for such effectively connected income to be exempt from withholding. Any such effectively connected income received by a foreign corporation may, under certain circumstances, be subject to an additional branch profits tax at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty) to the extent of any actual or deemed withdrawal from the trade or business that you conduct in the United States of earnings and profits that are effectively connected with such trade or business.

A non-U.S. holder of shares of common stock who wishes to claim the benefit of an applicable treaty rate is required to satisfy applicable certification and other requirements. If you are eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, you may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Sale, Exchange, Conversion or Other Disposition of Notes or Shares of Common Stock

Except to the extent of cash or stock received in consideration for accrued but unpaid interest, gain on the sale, exchange or other taxable disposition of a note (as well as upon the conversion of a note into cash or into a combination of cash and stock) or common stock will not be subject to U.S. federal income tax unless:

that gain is effectively connected with your conduct of a trade or business in the United States (and, if required by an applicable income tax treaty, is attributable to a U.S. permanent establishment);

you are an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are met; or

we are or have been a U.S. real property holding corporation (a USRPHC) for U.S. federal income tax purposes at any time during the shorter of your holding period or the 5-year period ending on the date of disposition of the notes or common stock, as the case may be. If you are described in the first bullet point above, you will be subject to U.S. federal income tax on the net gain derived from the sale, exchange, conversion or other taxable disposition at applicable graduated individual or corporate rates. If you are described in the second bullet point above, you will be subject to a flat 30% tax on the gain derived from the sale, exchange, conversion or other taxable disposition, which may be offset by U.S. source capital losses, even though you are not considered a resident of the United States.

If you are a foreign corporation that falls under the first bullet point above, you may be subject to the branch profits tax equal to 30%, or such lower rate as may be specified by an applicable income tax treaty, of your effectively connected earnings and profits to the extent they are withdrawn or deemed to be withdrawn from your U.S. trade or business.

We believe that we are not and do not anticipate becoming a USRPHC for U.S. federal income tax purposes. If we were a USRPHC during the period described above, you meet certain ownership requirements and no exception applies, you would be subject to a 10% withholding tax on the amount of cash and fair market value of property otherwise payable to you upon the sale, exchange or other disposition of a note or common stock. The gain realized by you on such a sale, exchange or disposition would be treated as income effectively connected with the conduct of a trade or business in the United States, with the consequences described above in the second preceding paragraph for gain that is effectively connected income (except that the branch profits tax would not apply). Any withholding tax paid with respect to the sale, exchange or disposition would be creditable against your tax liability on your effectively connected income upon filing a U.S. federal income tax return, and any withholding tax in excess of that liability would be refundable to you.

Table of Contents

Any stock that you receive on the sale, exchange, conversion or other disposition of a note which is attributable to accrued interest will be subject to U.S. federal income tax in accordance with the rules for taxation of interest described above under [Payments on Notes](#).

Additional Withholding Requirements with respect to Payments to Foreign Financial Institutions and Non-financial Foreign Entities

Under Sections 1471–1474 of the Code, enacted as the Foreign Activities Tax Compliance Act (FATCA) and current Treasury regulations implementing it, the relevant withholding agent may be required to withhold 30% of any dividends paid on shares of our common stock after December 31, 2013, and any proceeds of a sale of our common stock paid after December 31, 2016 to (i) a foreign financial institution unless such foreign financial institution agrees to verify, report and disclose its U.S. account holders, including certain account holders that are foreign entities with U.S. owners, and meets certain other specified requirements or (ii) a nonfinancial foreign entity unless such entity certifies that it does not have any substantial substantial direct or indirect United States owners or provides the name, address and taxpayer identification number of each such substantial United States owner and such entity meets certain other specified requirements. For purposes of FATCA, foreign financial institutions include most foreign depository institutions and foreign custodial institutions, certain foreign insurance companies and certain foreign investment funds, such as mutual funds, hedge funds and private equity funds. Non-financial foreign entities generally include all other foreign entities, unless exempted. Under current Treasury regulations, certain foreign financial institutions and non-financial foreign entities may be exempt from such withholding even if they do not comply with the requirements described above. An intergovernmental agreement between the United States and an applicable foreign country of which a foreign financial institution is a resident may modify such requirements as to such financial institution. Prospective investors should consult their own tax advisors regarding FATCA.

Information Reporting and Backup Withholding

Generally, the amount of interest and dividends paid to you and the amount of tax, if any, withheld with respect to those payments must be reported annually by the applicable withholding agent to the IRS and to you. In general, you will not be subject to backup withholding with respect to payments of interest on the notes or dividends on our common stock, provided an IRS Form described above under [Payments on Notes](#) has been received (and the applicable withholding agent does not have actual knowledge or reason to know that you are a United States person, as defined under the Code, that is not an exempt recipient).

In addition, you will be subject to information reporting and, depending on the circumstances, backup withholding with respect to payments of the proceeds of the sale of a note or share of common stock within the United States or conducted through certain U.S.-related financial intermediaries, unless the IRS Form described above under [Payments on Notes](#) has been received (and the applicable withholding agent does not have actual knowledge or reason to know that you are a United States person, as defined under the Code, that is not an exempt recipient) or you otherwise establish an exemption.

Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against your U.S. federal income tax liability, provided the required information is furnished timely to the IRS.

Benefit Plan Investor Considerations

The notes or the common stock issuable upon conversion of the notes may be purchased and held by or with the assets of an employee benefit plan subject to Title I of the Employee Retirement Income Security Act of 1974, as amended (ERISA), an individual retirement account or other plan subject to Section 4975 of the Code or an employee benefit plan sponsored by a state or local government or otherwise subject to laws that include restrictions substantially similar to ERISA and Section 4975 of the Code (similar laws). A fiduciary of an

Table of Contents

employee benefit plan subject to ERISA must determine that the purchase and holding of a note or, if applicable, conversion of the note is consistent with its fiduciary duties under ERISA. Such fiduciary, as well as any other prospective investor subject to Section 4975 of the Code or any similar law, must also determine that its purchase and holding of notes or, if applicable, conversion of the notes does not result in a non-exempt prohibited transaction as defined in Section 406 of ERISA or Section 4975 of the Code or any similar law. Each purchaser and transferee of a note who is subject to ERISA or Section 4975 of the Code or a similar law will be deemed to have represented by its acquisition and holding of the note and potential conversion of the note that its acquisition and holding of the note and potential conversion of the note does not constitute or give rise to a non-exempt prohibited transaction under ERISA, Section 4975 of the Code or any similar law. Such purchaser or transferee should consult legal counsel before purchasing the notes or the common stock issuable upon conversion of the notes. Nothing herein shall be construed as a representation that an investment in the notes or the common stock issuable upon conversion of the notes would meet any or all of the relevant legal requirements with respect to investments by, or is appropriate for, an employee benefit plan subject to ERISA or Section 4975 of the Code or a similar law.

S-89

Table of Contents**UNDERWRITING**

Barclays Capital Inc. and Citigroup Global Markets Inc. are acting as joint book-running managers of the offering and as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the principal amount of notes set forth opposite the underwriter's name. The list of underwriters below supersedes the list of institutions named as managers of the offering of the notes in the free writing prospectus filed by us with the SEC on April 12, 2013.

Underwriter	Principal Amounts of Notes
Barclays Capital Inc.	\$ 124,906,000
Citigroup Global Markets Inc.	124,906,000
FBR Capital Markets & Co.	40,104,000
Stifel, Nicolaus & Company, Incorporated	40,104,000
PNC Capital Markets LLC	10,208,000
RBS Securities Inc.	6,272,000
Comerica Securities, Inc.	3,500,000
Total	\$ 350,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the notes included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the notes (other than those covered by the over-allotment option described below) if they purchase any of the notes.

Notes sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement. If all the notes are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

If the underwriters sell more notes than the total number set forth in the table above, we have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to \$52,500,000 additional aggregate principal amount of notes at the public offering price less the underwriting discount. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase an aggregate principal amount of notes approximately proportionate to that underwriter's initial purchase commitment. Any notes issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

We and certain of our officers and directors have agreed, subject to certain exceptions, that, for a period of 90 days from the date of this prospectus supplement, we and they will not, without the prior written consent of Barclays Capital Inc. and Citigroup Global Markets Inc., dispose of or hedge any shares or any securities convertible into or exchangeable for our Common Stock. Barclays Capital Inc. and Citigroup Global Markets Inc. in their sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option.

	Paid by RTI International Metals, Inc.	
	No Exercise	Full Exercise
Per note	\$ 30.00	\$ 30.00
Total	\$ 10,500,000	\$ 12,075,000

We estimate that our portion of the total expenses of this offering will be \$500,000.

Table of Contents

In connection with the offering, the underwriters may purchase and sell notes in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the over-allotment option, and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater principal amount of notes than they are required to purchase in the offering.

Covered short sales are sales of notes in an amount up to the principal amount of notes represented by the underwriters over-allotment option.

Naked short sales are sales of notes in an amount in excess of the principal amount of notes represented by the underwriters over-allotment option.

Covering transactions involve purchases of notes either pursuant to the over-allotment option or in the open market after the distribution has been completed in order to cover short positions.

To close a naked short position, the underwriters must purchase notes in the open market after the distribution has been completed. 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 notes in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered short position, the underwriters must purchase notes in the open market after the distribution has been completed or must exercise the over-allotment option. In determining the source of notes to close the covered short position, the underwriters will consider, among other things, the price of notes available for purchase in the open market as compared to the price at which they may purchase notes through the over-allotment option.

Stabilizing transactions involve bids to purchase notes so long as the stabilizing bids do not exceed a specified maximum. Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the notes. They may also cause the price of the notes to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

The notes are a new series of securities with no existing trading market and we do not intend to seek listing of the notes on any exchange. Our common stock is listed on the New York Stock Exchange under the symbol RTI.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

Certain of the underwriters have performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses. The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. Citigroup Global Markets Inc., FBR Capital Markets & Co., PNC Capital Markets LLC and Comerica Securities, Inc. were underwriters with respect to the offering of the 2015 Notes for which they received customary fees and reimbursement of certain expenses. In addition, certain of the underwriters or their affiliates are lenders or agents under the Credit Facility. Certain of those underwriters or their affiliates routinely hedge, and certain other underwriters or their affiliates may hedge, their credit exposure to us consistent with their customary risk management policies. Typically, these underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes. Any such credit default swaps or short

positions could adversely affect future trading prices of the notes.

S-91

Table of Contents

LEGAL MATTERS

The validity of the notes and guarantee offered hereby will be passed upon for us by Buchanan Ingersoll & Rooney PC, Pittsburgh, Pennsylvania, and Oppenheimer Wolff & Donnelly LLP. The underwriters have been represented in connection with this offering by Cravath, Swaine & Moore LLP, New York, New York.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to RTI's Annual Report on Form 10-K for the year ended December 31, 2012, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

S-92

Table of Contents

PROSPECTUS

COMMON STOCK
PREFERRED STOCK
DEBT SECURITIES
GUARANTEES OF DEBT SECURITIES
WARRANTS
PURCHASE CONTRACTS
UNITS AND DEPOSITORY SHARES

RTI International Metals, Inc. may offer from time to time common stock, preferred stock, debt securities, warrants, purchase contracts, units or depository shares, in one or more offerings. This prospectus also covers guarantees, if any, of our payment obligations under the debt securities, which may be given from time to time by one or more of our subsidiaries, on terms to be determined at the time of the offering. 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. Any prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and any accompanying prospectus supplement, together with the documents we incorporate by reference, carefully before you make your investment decision.

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. In addition, certain selling securityholders to be identified in a prospectus supplement may offer and sell these securities from time to time, in amounts, at prices and on terms that will be determined at the time the securities are offered. Our common stock is listed on the New York Stock Exchange and trades under the symbol RTI.

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement which will describe the method and terms of the offering.

Investing in our securities involves risk. See Risk Factors on page 4 of this prospectus and in the other documents that are incorporated by reference herein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the debt securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is December 8, 2010.

Table of Contents**TABLE OF CONTENTS**

<u>ABOUT THIS PROSPECTUS</u>	i
<u>SUMMARY DESCRIPTION OF RTI</u>	1
<u>THE GUARANTORS</u>	1
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	1
<u>FORWARD-LOOKING STATEMENTS</u>	3
<u>RISK FACTORS</u>	4
<u>USE OF PROCEEDS</u>	4
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	4
<u>DESCRIPTION OF SECURITIES</u>	4
<u>DESCRIPTION OF RTI CAPITAL STOCK</u>	5
<u>DESCRIPTION OF DEBT SECURITIES</u>	7
<u>GUARANTEES OF DEBT SECURITIES</u>	18
<u>DESCRIPTION OF WARRANTS</u>	18
<u>DESCRIPTION OF PURCHASE CONTRACTS</u>	18
<u>DESCRIPTION OF UNITS</u>	18
<u>DESCRIPTION OF DEPOSITORY SHARES</u>	19
<u>PLAN OF DISTRIBUTION</u>	19
<u>LEGAL MATTERS</u>	20
<u>EXPERTS</u>	20

ABOUT THIS PROSPECTUS

Unless otherwise stated or the context otherwise requires, references in this prospectus to RTI, the Company, we, our, us or similar references are to RTI International Metals, Inc. and its consolidated subsidiaries.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf registration process, RTI may, from time to time, sell any combination of the securities as described in this prospectus, in one or more offerings. This prospectus provides you with a general description of the securities that RTI may offer. Each time that securities are sold, a prospectus supplement containing specific information about the terms of that offering and the particular securities will be provided. 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 both this prospectus and any prospectus supplement together with additional information described under the heading Where You Can Find More Information.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. RTI is not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus.

Table of Contents

SUMMARY DESCRIPTION OF RTI

RTI International Metals, Inc. is a leading U.S. producer and supplier of titanium mill products and a global supplier of fabricated titanium and specialty metal components for the national and international aerospace, defense, energy and other markets. The Company, an Ohio corporation, and its predecessors have been operating in the titanium industry since 1951. The Company conducts business in three segments: the Titanium Group, the Fabrication Group, and the Distribution Group. The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by its customers for use in a variety of commercial aerospace, defense, and industrial applications. The titanium mill products consist of basic mill shapes including ingot, slab, bloom, billet, bar, plate, and sheet. The Titanium Group also produces ferro titanium alloys for steel-making customers. The Fabrication Group comprises companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets. The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys.

The address of our principal executive offices is Westpointe Corporate Center One, 1550 Coraopolis Heights Road, Fifth Floor, Pittsburgh, PA 15108-2973, and our telephone number at our principal executive offices is (412) 893-0026.

THE GUARANTORS

RTI International Metals, Inc. was reorganized into a holding company structure in 1998. The guarantors of the debt securities may include the following companies, each of which is a wholly-owned direct or indirect subsidiary of RTI International Metals, Inc.:

RMI Titanium Company

Extrusion Technology Corporation of America

RTI Finance Corp.

RTI Martinsville, Inc.

RTI Remmele Medical, Inc.

RTI Remmele Engineering, Inc.

If so provided in a prospectus supplement or term sheet with respect to a specific offering, each of the guarantors will fully and unconditionally guarantee on a joint and several basis our obligations under the debt securities on the terms and conditions specified in such prospectus supplement or term sheet.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information we file with the SEC, including the registration statement of which this prospectus is a part, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information about the operation of the SEC Public Reference Room in Washington, D.C. by calling the SEC at (800) 732-0330. Our filings are also available to the public from commercial retrieval services, at the website maintained by the SEC at www.sec.gov, and on RTI's website at www.rtiintl.com. Our common stock is listed and traded on the New York Stock Exchange, or the NYSE, under the trading symbol RTI. Our reports, proxy statements and other information can also be read at the offices of the NYSE, 20 Broad Street, New York, New York 10005.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

We filed a registration statement on Form S-3 and a Post-Effective Amendment to Form S-3 to register with the SEC the securities we may offer and sell pursuant to this prospectus. This prospectus is a part of that registration statement. As allowed by SEC rules, this prospectus does not contain all the information you can find in the registration statement or the exhibits to the registration statement. You may obtain copies of the Form S-3 and exhibits (and any amendments to those documents) in the manner described above.

Table of Contents

Incorporation of SEC Filings

The SEC's rules allow us to incorporate by reference information into this prospectus, which means that we can disclose important information to you by referring you to other documents that RTI has filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained directly in this prospectus or in a later filed document incorporated by reference in this prospectus. We incorporate by reference into this prospectus the documents set forth below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), after the initial filing of this registration statement that contains this prospectus and prior to the time that we sell all of the securities offered by this prospectus, other than any information furnished pursuant to Item 2.02 or Item 7.01 of any Current Report on Form 8-K unless we specifically state in such Current Report that such information is considered to be filed under the Exchange Act or we incorporate it by reference into a filing under the Securities Act of 1933 (the Securities Act) or the Exchange Act. These documents contain important information about RTI.

RTI's Annual Report on Form 10-K for the year ended December 31, 2009 filed with the SEC on February 22, 2010;

RTI's 2009 Proxy Statement filed with the SEC on April 2, 2010 (those parts incorporated by reference in our Annual Report on Form 10-K only);

RTI's Quarterly Report on Form 10-Q filed with the SEC for the quarters ended March 31, 2010 (filed on May 5, 2010), June 30, 2010 (filed on August 4, 2010) and September 30, 2010 (filed on November 3, 2010);

RTI's Current Report on Form 8-K filed on March 5, 2010;

RTI's Current Report on Form 8-K filed on March 31, 2010;

RTI's Current Report on Form 8-K filed on April 12, 2010;

RTI's Current Report on Form 8-K filed on May 6, 2010;

RTI's Current Report on Form 8-K/A filed on May 21, 2010;

RTI's Current Report on Form 8-K filed on July 22, 2010;

RTI's Current Report on Form 8-K filed on August 3, 2010 (only with respect to Section 8.01);

RTI's Current Report on Form 8-K filed on December 8, 2010; and

The description of RTI's common stock contained in our Registration Statement on Form 8-A-12B (Registration No. 1-14437) dated August 21, 1998, including any reports updating that description.

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

You may obtain copies, without charge, of documents incorporated by reference in this prospectus, by requesting them from us in writing or by telephone as follows:

RTI International Metals, Inc.
Westpointe Corporate Center One
1550 Coraopolis Heights Road, Fifth Floor
Pittsburgh, PA 15108-2973
Telephone: (412) 893-0026

Exhibits to the filings will not be sent, unless those exhibits have been specifically incorporated by reference in this prospectus.

General information about RTI, including our annual report on Form 10-K, quarterly reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website at <http://www.rtiintl.com> as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Other information contained on our website is not incorporated into this prospectus or our other securities filings and is not a part of these filings.

Table of Contents

FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. This prospectus, and the documents incorporated herein by reference, may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Additionally, we or our representatives may, from time to time, make other written or verbal forward-looking statements. In this prospectus, and the documents incorporated by reference herein, we discuss expectations regarding our business, financial condition and results of operations. Without limiting the foregoing, words or phrases such as will likely result, are expected to, will continue, is anticipated, we believe, estimate, project (including the negative or variations thereof) or terminology, generally identify forward-looking statements. Forward-looking statements may also represent challenging goals for us. As such, they are based on current expectations and are subject to certain risks and uncertainties. We caution that undue reliance should not be placed on such forward-looking statements which speak only as of the date made. In order to comply with the terms of the safe harbor, we identify for investors important risk factors which could affect our financial performance and could cause actual results for future periods to differ materially from the anticipated results or other expectations expressed in the forward-looking statements.

Investing in our securities involves risk. Before you invest in our securities, you should carefully consider some of the factors which could cause our results to differ from those expressed in any forward-looking statement, which are set forth under the caption Risk Factors below, and in Item 1A in our most recent Form 10-K, Item 1A of Part II in our most recent Form 10-Q, and subsequent Form 10-Q and Form 10-K filings made with the SEC, each of which is incorporated by reference herein, and include:

the future availability and prices of raw materials,

competition in the titanium industry,

demand for the Company's products,

the historic cyclical nature of the titanium and commercial aerospace industries,

changes in defense spending and cancellation or changes in defense programs or initiatives,

changes in the Joint Strike Fighter production schedule,

the ability to obtain access to financial markets and to maintain current covenant requirements,

long-term supply agreements and the impact if another party to a long-term supply agreement fails to fulfill its requirements under existing contracts or successfully manage its future development and production schedule,

the impact of the current titanium inventory overhang throughout our supply chain,

the impact of Boeing 787 Dreamliner® production delays,

our ability to attract and retain key personnel,

legislative challenges to the Specialty Metals Clause, which requires that titanium for U.S. defense programs be melted in the U.S.,

labor matters,

global economic activities,

the successful completion of our expansion projects,

our ability to execute on new business awards,

our order backlog and the conversion of that backlog into revenue,

demand for our products, and

other statements contained herein that are not historical facts.

Table of Contents

Because such forward-looking statements involve risks and uncertainties, there are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These and other risk factors are set forth in this filing, as well as in other filings filed with or furnished to the SEC over the last 12 months, copies of which are available from the SEC or may be obtained upon request from the Company. Except as may be required by applicable law, we undertake no duty to update our forward-looking information.

RISK FACTORS

Investing in our securities involves risks. Before you invest in our securities, you should carefully consider the risks described under Risk Factors, which are set forth under Item 1A in our most recent Form 10-K, Item 2 in our most recent Form 10-Q, and subsequent Form 10-Q and Form 10-K filings made with the SEC, each of which is incorporated by reference herein, as well as the other information contained or incorporated by reference in this prospectus or any prospectus supplement hereto before making a decision to invest in our securities.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we will use the net proceeds from the sale of our securities for general corporate and working capital purposes. General corporate and working capital purposes may include repayment of debt, repurchase of shares of our common stock, capital expenditures, acquisitions and any other purposes that may be stated in any prospectus supplement. The precise amount and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. The net proceeds may be invested temporarily or applied to repay short-term or revolving debt until they are used for their stated purpose. In the case of a sale by a selling securityholder, we will not receive any of the proceeds from such sale.

RATIO OF EARNINGS TO FIXED CHARGES

The table below sets forth our ratio of earnings to fixed charges on a historical basis for the periods indicated.

	Year Ended December 31,					Nine Months Ended Sept. 30, 2010
	2005	2006	2007	2008	2009	
Ratio of earnings to fixed charges(1)	39.05	70.42	58.10	16.01	(2)	6.38

- (1) Earnings consist of pretax income (loss) from continuing operations and fixed charges. Fixed charges consist of interest expense, amortization of deferred financing costs, amortization of discount related to indebtedness and the portion of operating lease rental expense that is considered by us to be representative of interest.
- (2) For fiscal 2009, earnings were insufficient to cover fixed charges by \$96.7 million.

DESCRIPTION OF SECURITIES

This prospectus contains a summary of the securities that RTI may sell. These summaries are not meant to be a complete description of each security. However, this prospectus and any accompanying prospectus supplement shall contain the material terms of the securities being offered.

Table of Contents

DESCRIPTION OF RTI CAPITAL STOCK

The following summary of the terms of our capital stock is not meant to be complete and is qualified by reference to the relevant provisions of the laws of the State of Ohio and our Articles of Incorporation and Code of Regulations. Copies of our Articles of Incorporation and Code of Regulations are incorporated herein by reference and will be sent to you at no charge upon request. See [Where You Can Find More Information](#) above.

General

Our authorized capital stock consists of 50,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, without par value, the rights and preferences of which may be established from time to time by our board of directors. As of December 6, 2010, 30,119,472 shares of common stock (excluding shares held in treasury) were outstanding. No shares of preferred stock were issued or outstanding as of December 6, 2010.

Common Stock

Holders of our common stock are entitled to one vote for each share on all matters voted upon by our stockholders, including the election of directors, and do not have cumulative voting rights, which means that the holders of a majority of shares voting for the election of directors can elect all members of our board of directors. Except as otherwise required by applicable law or our Articles of Incorporation or our Code of Regulations, a majority of votes cast is sufficient for any act of stockholders. Our Articles of Incorporation require the approval of the holders of shares representing two-thirds of the voting power of the corporation to effect any amendment to the Articles of Incorporation, a merger or consolidation if under Ohio law such merger or consolidation would have to be submitted to our shareholders for action, a sale or disposition of all or substantially all of our assets or a dissolution of RTI. Subject to the rights of holders of any then outstanding shares of our preferred stock, our common stockholders are entitled to receive ratably any dividends that may be declared by our board of directors out of funds legally available therefor. Holders of our common stock are entitled to share ratably in our net assets upon our dissolution or liquidation after payment or provision for all liabilities and any preferential liquidation rights of our preferred stock then outstanding. Holders of our common stock do not have preemptive rights to purchase shares of our stock. The shares of our common stock are not subject to any redemption provisions and are not convertible into any other shares of our capital stock. All outstanding shares of our common stock are fully paid and nonassessable. Our Articles of Incorporation state that no holder or any class of shares of RTI shall have any preemptive right to purchase or have offered to them for purchase any shares or other securities of RTI. The rights, preferences and privileges of holders of our common stock will be subject to those of the holders of any shares of our preferred stock we may issue in the future.

Our common stock is listed on the New York Stock Exchange under the symbol [RTI](#). The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.

Preferred Stock

Our board of directors may, from time to time, authorize the issuance of one or more classes or series of preferred stock without stockholder approval. Our Articles of Incorporation permit us to issue up to 5,000,000 shares of preferred stock from time to time. Subject to the provisions of our Articles of Incorporation and limitations prescribed by law, our board of directors is authorized to adopt resolutions to issue shares, establish the number of shares, change the number of shares constituting any series, and provide or change the voting powers, designations, preferences and relative rights, qualifications, limitations or restrictions on shares of our preferred stock, including dividend rights, terms of redemption, conversion rights and liquidation preferences, in each case without any action or vote by our stockholders.

Table of Contents

Our Articles of Incorporation establish 300,000 shares of Series A Junior Participating Preferred Stock, although no such shares are issued and outstanding.

Possible Anti-Takeover Effects.

Provisions of Ohio law relevant to RTI

We are subject to Chapter 1704 of the Ohio Revised Code, which prohibits us from entering into transactions with persons owning 10% or more of our outstanding voting power for at least three years after attaining 10% ownership unless the Board of Directors has approved the acquisitions of shares resulting in such ownership. Ohio Revised Code §1707.043 requires a person or entity making a proposal to acquire control of us to repay us any profits made from trade in our stock within 18 months after making the control proposal.

In addition, pursuant to Section 1701.831 of the Ohio Revised Code, the acquisition of certain levels of our voting power (one-fifth or more, one-third or more, or a majority) can be made only with the prior authorization of the holders of at least a majority of our total voting power and the separate prior authorization of the holders of at least a majority of the voting power held by shareholders other than the proposed acquirer, our officers, and our directors who are also employees.

Also, pursuant to Ohio Revised Code Section 1707.043, a public corporation formed in Ohio may recover profits that a shareholder makes from the sale of the corporation's securities within eighteen (18) months after making a proposal to acquire control or publicly disclosing the possibility of a proposal to acquire control. The corporation may not, however, recover from a person who proves in a court of competent jurisdiction either of the following:

that his, her or its sole purpose in making the proposal was to succeed in acquiring control of the corporation and there were reasonable grounds to believe that such person would acquire control of the corporation; or

such person's purpose was not to increase any profit or decrease any loss in the stock, and the proposal did not have a material effect on the market price or trading volume of the stock.

Blank Check Preferred Stock

Our Articles of Incorporation generally permit our board of directors to issue preferred stock without any action or vote of our stockholders. The rights, preferences and privileges of holders of our common stock are subject to, and may be injured by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. The issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control including transactions in which the stockholders might otherwise receive a premium for their shares over the then current market prices.

These provisions of our Articles of Incorporation and Ohio law would be important in any attempted takeover of us and could operate, depending on how utilized by the Board of Directors, either to discourage a hostile takeover or to enable the Board of Directors to negotiate a higher price than may be initially proposed in any such situation.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

As used in this prospectus, "debt securities" means the senior and subordinated debentures, notes, bonds and other evidences of indebtedness that we issue and a trustee authenticates and delivers under an applicable indenture. This prospectus describes certain general terms and provisions of our debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series, including any guarantees with respect to such series, in a supplement to this prospectus. The following description of debt securities will apply to the debt securities offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of debt securities may specify different or additional terms.

We may offer under this prospectus secured or unsecured debt securities, which may or may not be subject to a guarantee of one or more of our subsidiaries. The debt securities may be either senior debt securities, senior subordinated debt securities or subordinated debt securities. The senior debt securities offered hereby will be issued under an indenture between us and our trustee (the "senior indenture"). The subordinated debt securities will be issued under an indenture between us and our trustee (the "subordinated indenture" and, together with the senior indenture, the "indentures"). Each indenture will be qualified under, subject to, and governed by, the Trust Indenture Act of 1939, as amended.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in a board of directors' resolution, an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement.

We can issue an unlimited amount of debt securities under each indenture that may be in one or more series with the same or various maturities, at par, at a premium or at a discount. We will set forth in a prospectus supplement, including any pricing supplement relating to any series of debt securities being offered, the initial offering price, the aggregate principal amount and the following terms of the debt securities of such series:

the title of the debt securities;

whether the debt securities will be senior or subordinated debt securities;

the terms of any subordination provisions, including, in the case of subordinated debt securities, the aggregate amount of outstanding indebtedness senior to such subordinated debt and a brief description of any limitation on the issuance of additional senior indebtedness or a statement that there is no such limitation;

whether the debt securities are guaranteed and the terms and conditions of any such guarantees;

the price or prices (expressed as a percentage of the aggregate principal amount) at which we will sell the debt securities and the original issue date;

the stated maturity;

any limit on the aggregate principal amount of the debt securities;

the date or dates on which we will pay the principal on the debt securities;

the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;

Table of Contents

the place or places where the principal of, premium, and interest on the debt securities will be payable;

the terms and conditions upon which we may redeem, retire or amortize the debt securities;

any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities;

the dates on which and the price or prices at which we will repurchase the debt securities at the option of the holders of the debt securities and other detailed terms and provisions of these repurchase obligations, if any;

provisions restricting the declaration of dividends or requiring maintenance of any asset ratio or the creation of maintenance reserves, if any;

the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;

whether the debt securities will be issued in the form of certificated debt securities or global debt securities;

the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;

the currency of denomination of the debt securities;

the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;

if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;

the manner in which the amounts of payment of principal of, premium or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;

any provisions relating to any security provided for the debt securities;

any provision regarding the type and priority of any lien securing the securities, in addition to the identification and brief description of the principal properties subject to such lien;

any addition to or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;

in the case of secured debt, whether the securities being registered are to be issued on the basis of unbonded bondable property, the deposit of cash or otherwise, and the approximate amount of unbonded bondable property available as a basis for the issuance of bonds;

any provision permitting the withdrawal of cash deposited as a basis for the issuance of bonds or permitting the release or substitution of assets securing the issue;

any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;

the tax effects if debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code or where a debt security is sold in a package with another security and the allocation of the offering price between the two securities may have the effect of offering the debt security at such an original issue discount, including yield to maturity;

Table of Contents

any other terms of the debt securities, which may modify or delete any provision of the indenture as it applies to that series; and

any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities. We may issue debt securities that are exchangeable and/or convertible into shares of our common stock or other property. The terms, if any, on which the debt securities may be exchanged for and/or converted will be set forth in the applicable prospectus supplement. Such terms may include provisions for conversion, either mandatory, at the option of the holder or at our option, in which case the number of shares of common stock or other property to be received by the holders of debt securities would be calculated as of a time and in the manner stated in the prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Payment of Interest and Exchange

Each debt security will be represented by one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee of the Depository (we will refer to any debt security represented by a global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security), as described in the applicable prospectus supplement. Except as described under Global Debt Securities and Book-Entry System below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at the trustee's office or paying agencies in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

Global Debt Securities and Book-Entry System

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository.

The Depository has indicated it intends to follow the following procedures with respect to book-entry debt securities.

Table of Contents

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depository for the related global debt security, whom we refer to as participants, or persons that may hold interests through participants. Upon the issuance of a global debt security, the Depository will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by the global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the Depository for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depository for a global debt security, or its nominee, is the registered owner of that global debt security, the Depository or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described herein, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, to exercise any rights of a holder under the indenture, each person beneficially owning book-entry debt securities must rely on the procedures of the Depository for the related global debt security and, if that person is not a participant, on the procedures of the participant through which that person owns its interest.

We understand, however, that under existing industry practice, the Depository will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the persons specified in a written statement of the Depository with respect to that global debt security for purposes of obtaining any consents or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest on, book-entry debt securities to the Depository or its nominee, as the case may be, as the registered holder of the related global debt security. We, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that the Depository, upon receipt of any payment of principal of, premium or interest on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of the Depository. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security if the Depository is at any time unwilling or unable to continue as Depository or ceases to be a clearing agency registered under the Exchange Act, and a successor Depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days. In addition, we may at any time and in our sole discretion determine not to have any of the book-entry debt securities of any series represented by one or more global debt securities and, in that event, we will issue certificated debt securities in exchange for the global debt securities of that series. Global debt securities will also be exchangeable by the holders for certificated debt securities if an event of default with respect to the book-entry debt securities represented by those global debt securities has occurred and is

Table of Contents

continuing. Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depository shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depository from participants with respect to ownership of book-entry debt securities relating to such global debt security.

We have obtained the foregoing information in this section concerning the Depository and the Depository's book-entry system from sources we believe to be reliable. We take no responsibility for the Depository's performance of its obligations under the rules and regulations governing its operations.

No Protection in the Event of a Change in Control

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Redemption or Repayment

If there are any provisions regarding redemption or repayment applicable to your debt security, we will describe them in the applicable prospectus supplement. We or our affiliates may purchase debt securities from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Debt securities that we or they purchase may, at our discretion, be held, resold or canceled.

Covenants

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any restrictive covenants restricting us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries property or capital stock, or restricting us or any of our subsidiaries from entering into any sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we provide otherwise in the applicable prospectus supplement, we may not consolidate with or merge with or into any other person, or transfer (by lease, assignment, sale, or otherwise) all or substantially all of our properties and assets to another person unless:

- (i) either we are the continuing or surviving person in such a consolidation or merger or the person (if other than us) formed by such consolidation or into which we are merged or to which all or substantially all of the properties and assets of RTI are transferred is a corporation organized and validly existing under the laws of the United States, any state thereof, or the District of Columbia, and expressly assumes, by an indenture supplement, all of our the obligations under the securities and the indenture;
- (ii) immediately after the transaction and the incurrence or anticipated incurrence of any indebtedness to be incurred in connection therewith, no event of default exists under the indenture or supplemental indenture; and
- (iii) an officer's certificate has been delivered to the trustee to the effect that the conditions set forth in the preceding clauses (i) and (ii) have been satisfied and an opinion of counsel has been delivered to the trustee to the effect that the conditions set forth in the preceding clause (i) have been satisfied.

Table of Contents

Events of Default

Unless we provide otherwise in the applicable prospectus supplement, event of default means, with respect to any series of debt securities, any of the following:

default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days;

default in the payment of principal of or premium, if any, on any debt security of that series when due and payable;

default in the making of any sinking fund payment, when and as due in respect of any debt security of that series;

default in the performance, or breach, of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included specifically elsewhere in the indenture or solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;

non-payment of certain other indebtedness at maturity, following expiration of all applicable grace periods;

certain events of our bankruptcy, insolvency or reorganization involving the Company, any subsidiary guarantor, any significant subsidiary or group of subsidiaries of the Company that in the aggregate would constitute a significant subsidiary (as defined in the indenture); and

any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement accompanying this prospectus.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. An event of default may also be an event of default under our bank credit agreements or other debt securities in existence from time to time and under certain guaranties by us of any subsidiary indebtedness. In addition, certain events of default or an acceleration under the indenture may also be an event of default under some of our other indebtedness outstanding from time to time.

Unless we provide otherwise in the applicable prospectus supplement, if an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing (other than certain events of bankruptcy, insolvency or reorganization involving the Company, any subsidiary guarantor, any significant subsidiary or any group of subsidiaries of the Company that in the aggregate would constitute a significant subsidiary (as defined in the indenture)), then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by written notice to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of any accrued and unpaid interest, if any, of all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization involving the Company, any subsidiary guarantor, any significant subsidiary or any group of subsidiaries of the Company that in the aggregate would constitute a significant subsidiary (as defined in the indenture), the principal (or such specified amount) of and accrued and unpaid interest, if any, of all outstanding debt securities will become and be immediately due and payable without any declaration or other act by the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before the trustee has obtained a judgment or decree for payment of the money due, the holders of a majority in principal amount of the outstanding debt securities of that series may, subject to our having paid or deposited with the trustee a sum sufficient to pay overdue interest and principal which has become due other than by acceleration

Table of Contents

and certain other conditions, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. For information as to waiver of defaults, see the discussion under the heading "Modification and Waiver" below. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of the discount securities upon the occurrence of an event of default and the continuation of an event of default.

Unless we provide otherwise in the applicable prospectus supplement, the indenture will provide that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity or security reasonably satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

Unless we provide otherwise in the applicable prospectus supplement, no holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and

the holders of at least 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security reasonably satisfactory, to the trustee to institute such proceeding as trustee, and the trustee shall not have received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a certificate as to compliance with the indenture. In addition, the indenture requires us to notify the trustee, as soon as possible, and in any event within 10 days after we become aware of the occurrence of any uncured event of default or default with respect to any series of debt securities and the nature and status thereof and the action that we propose to take with respect thereto. The indenture provides that the trustee will, within 90 days after the occurrence of a default with respect to debt securities of any series of which a responsible officer has actual knowledge, mail notice of all such defaults to all holders of such series, unless such defaults shall have been cured or waived before the giving of such notice; provided that, except in the case of a default in the payment of the principal of or accrued and unpaid interest on, any of the securities of such series or a default in the payment or delivery, as the case may be, of the consideration due upon conversion of the securities of any such series that are convertible or exchangeable, the trustee shall be protected in withholding such notice if and so long as it in good faith determines that the withholding of such notice is in the interests of the holders of such series.

Modification and Waiver

Unless we provide otherwise in the applicable prospectus supplement, we, any subsidiary guarantors, and the trustee may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. However, we, any subsidiary guarantors, and the trustee may not make any modification or amendment without the consent of the holder of each affected debt security then outstanding if any such amendment would have the following effects:

to change the stated maturity of the principal of, or any installment of principal of or interest on, any debt security;

Table of Contents

to reduce the principal amount of, the rate of interest or any premium payable upon the redemption of any debt security;

to reduce the amount of the principal of an original issue discount security that would be due and payable upon a declaration of acceleration of the maturity of a debt security;

change the coin or currency in which, any debt security or any premium or interest of a debt security is payable, or impair the right to institute suit for the enforcement of any such payment on or after the stated maturity (or, in the case of redemption, on or after the redemption date);

reduce the percentage in principal amount of the debt securities of any series for which consent or waiver is required by the indenture or any supplemental indenture; or

modify any of the provisions of the indenture regarding our ability to make modifications, except to increase the percentage in principal amount of holders of debt securities required under any section of the indenture.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all debt securities of that series, waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all the debt securities of that series, waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Notwithstanding the above provisions, under the indenture we and the trustee do have the ability, without the consent of or notice to any holders of debt security, when authorized by a board resolution, at any time and from time to time, to enter into one or more supplemental indentures, for any of the following purposes:

to evidence the succession of another person to the Company and the assumption by any such successor of the covenants of the Company and in the debt securities, to the extent otherwise permitted under the indenture;

to add to the covenants of the Company for the benefit of the holders of debt securities or to surrender any right or power conferred on the Company under the indenture;

to add any additional events of default;

to add to or change any of the provisions of the indenture as may be necessary to permit or facilitate the issuance of debt securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons, or to permit or facilitate the issuance of debt securities in uncertificated form;

to add to, change, or eliminate any of the provisions of the indenture in respect of one or more series of debt securities, provided that any such addition, change, or elimination (i) will neither (A) apply to any debt security created prior to the execution of the supplemental indenture and entitled to the benefit of such provision nor (B) modify the rights of the holder of any such debt security with respect to such provision or (ii) will become effective only when there is no such debt security outstanding;

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

to establish the form or terms of any series of debt securities as permitted under the indenture;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee pursuant to the requirements of the indenture; or

to cure any ambiguity, to correct or supplement any provision of the indenture or any other supplemental indenture which may be defective or inconsistent with any other provision, or to make any other provisions with respect to matters or questions arising under the indenture, provided that such action pursuant will not adversely affect the interests of the holders of any series of debt securities in any material respect.

Table of Contents

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance.

Unless the terms of the applicable series of debt securities provide otherwise, we may be discharged from any and all obligations in respect of the debt securities of any series (except for certain obligations to register the transfer or exchange of debt securities of the series, to replace stolen, lost or mutilated debt securities of the series, and to maintain paying agencies and certain provisions relating to the treatment of funds held by paying agents). We will be so discharged upon the deposit with the trustee, in trust, of money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations (as described at the end of this section) that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of such payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an officers' certificate and either a ruling directed to the trustee received from the United States Internal Revenue Service or an opinion of counsel based on a ruling from the United States Internal Revenue Service or a change in the applicable federal tax law, each to the effect that holders of the debt securities of such series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants.

Unless the terms of the applicable series of debt securities provide otherwise, upon compliance with certain conditions we may omit to comply with the restrictive covenants contained in the indenture, as well as any additional covenants contained in the applicable prospectus supplement.

The conditions include:

depositing with the trustee money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

delivering to the trustee an opinion of counsel or a ruling directed to the trustee received from the United States Internal Revenue Service to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax in the same amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default.

If we exercise our option, as described above, not to comply with certain covenants of the indenture with respect to any series of debt securities, and the debt securities of that series are declared due and payable because of the occurrence of any event of default, the amount of money and/or United States government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the event of default. However, we will remain liable for those payments.

Table of Contents

Satisfaction and Discharge

We may discharge all our obligations under the indenture with respect to debt securities of any series, other than our obligations to register the transfer of and exchange debt securities of that series, provided that:

either (a) we deliver all outstanding debt securities of that series to the trustee for cancellation; or (b) all such debt securities not so delivered for cancellation have either become due and payable or will become due and payable at their stated maturity within one year or are to be called for redemption within one year, and we have deposited with the trustee in trust an amount of cash sufficient to pay the entire indebtedness of such debt securities, including interest to the stated maturity or applicable redemption date;

we have paid all other sums then due and payable under the indenture; and

we have delivered to the trustee an officers' certificate and an opinion of counsel, each stating that all conditions precedent under the indenture relating to the satisfaction and discharge of the indenture have been complied with.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee or stockholder of RTI or any subsidiary guarantor, as such, shall have any liability for any obligations of RTI under the debt securities, the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder, upon RTI's issuance of the debt securities and execution of the indenture, waives and releases all such liability. The waiver and release are part of the consideration for issuance of the debt securities. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy and therefore unenforceable.

Denominations

Unless stated otherwise in the prospectus supplement for each issuance of debt securities, the debt securities will be issued in denominations of \$1,000 each or integral multiples of \$1,000.

Paying Agent and Registrar

The trustee will initially act as paying agent and registrar for the debt securities. RTI may change the paying agent or registrar without prior notice to the holders of the debt securities, and RTI may act as paying agent or registrar.

Transfer and Exchange

If a debt security is issued as a global debt security, only the depositary will be entitled to transfer and exchange the debt security as described in this subsection, since the depositary will be the sole holder of the debt security.

A holder may transfer or exchange non-global debt securities in accordance with the indenture. The registrar and the trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and RTI may require a holder to pay any taxes and fees required by law or permitted by the indenture. RTI is not required to transfer or exchange any debt security selected for redemption. In addition, RTI is not required to transfer or exchange any debt security for a period of 15 days before a selection of debt securities to be redeemed.

Table of Contents

Payments

We will pay interest, principal and other amounts payable with respect to the debt securities of any series to the holders of record of these debt securities as of the record dates and otherwise in the manner specified below or in the prospectus supplement for that series.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York.

Notices

Notices to be given to holders of a global debt security will be given only to the depository, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of debt securities not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee's records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

Book entry and other indirect owners should consult their banks or brokers for information on how they will receive notices.

Additional Terms Applicable to Subordinated Debt Securities

We will disclose the specific terms of subordination with respect to any subordinated debt securities in the applicable prospectus supplement.

Information Concerning the Trustee

The Bank of New York Mellon Trust Company, N.A. will be the trustee under each indenture. A successor trustee may be appointed in accordance with the terms of each indenture.

The trustee under each indenture has two main roles:

First, the trustee can enforce a holder's rights against us if we default. There are some limitations on the extent to which the trustee acts on a holder's behalf.

Second, the trustee performs administrative duties for us, such as sending interest payments and notices to holders of debt securities. Each indenture and the provisions of the Trust Indenture Act incorporated by reference therein, contain certain limitations on the rights of the trustee, should it become a creditor of us, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The trustee will be permitted to engage in other transactions; however, if it acquires any conflicting interest (within the meaning of the Trust Indenture Act), it must eliminate such conflicting interest or resign.

The prospectus supplement for debt securities will describe any material relationships we may have with the trustee.

Table of Contents

GUARANTEES OF DEBT SECURITIES

Any debt securities may be guaranteed by one or more of RMI Titanium Company, Extrusion Technology Corporation of America, RTI Finance Corp., RTI Martinsville, Inc., RTI Remmele Medical, Inc. and RTI Remmele Engineering, Inc. Each prospectus supplement will describe any guarantees of debt securities for the benefit of the series of debt securities to which it relates.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts for the purchase or sale of:

debt or equity securities issued by us or securities of third parties, a basket of such securities, an index or indices of such securities or any combination of the above as specified in the applicable prospectus supplement;

currencies; or

commodities.

Each purchase contract will entitle the holder thereof to purchase or sell, and obligate us to sell or purchase, on specified dates, such securities, currencies or commodities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any, with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value of the property otherwise deliverable or, in the case of purchase contracts on underlying currencies, by delivering the underlying currencies, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, currencies or commodities and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract.

The purchase contracts may require us to make periodic payments to the holders thereof or vice versa, which payments may be deferred to the extent set forth in the applicable prospectus supplement, and those payments may be unsecured or pre-funded on some basis. The purchase contracts may require the holders thereof to secure their obligations in a specified manner to be described in the applicable prospectus supplement. Alternatively, purchase contracts may require holders to satisfy their obligations thereunder when the purchase contracts are issued.

DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more purchase contracts, warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities.

Table of Contents

DESCRIPTION OF DEPOSITARY SHARES

As specified in the applicable prospectus supplement, we may issue fractional interests in shares of preferred stock, rather than shares of preferred stock, containing such rights and subject to such terms and conditions as we may specify. If we exercise that option, we will provide for a depositary to issue receipts for depositary shares, each of which will represent a fractional interest in a share of preferred stock. The shares of preferred stock underlying the depositary shares will be deposited under a separate deposit agreement between us and a bank or trust company depositary that has its principal office in the U.S. The prospectus supplement will include the name and address of the depositary.

PLAN OF DISTRIBUTION

RTI may sell securities in one or more of the following ways from time to time:

to or through underwriters or dealers;

by itself directly;

through agents; or

through a combination of any of these methods of sale.

The prospectus supplements will state the terms of the offering of securities, including:

the name or names of any underwriters, dealers or agents;

the purchase price of the offered securities and the proceeds to RTI from the sale, if any;

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

any initial public offering price, any discounts or concessions allowed or reallocated or paid to dealers; and

any securities exchanges on which such offered securities may be listed.

Any initial public offering prices, discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

If we and/or the selling securityholders, if applicable, use underwriters in the sale, the underwriters will acquire the offered securities for their own account and may resell them from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices. The offered securities may be offered either to the public through underwriting syndicates represented by one or more managing underwriters or by one or more underwriters without a syndicate. Unless otherwise set forth in a prospectus supplement, the obligations of the underwriters to purchase any series of securities will be subject to certain conditions precedent, and the underwriters will be obligated to purchase all of such series of securities, if any are purchased.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the offered securities at levels above those

Edgar Filing: RTI INTERNATIONAL METALS INC - Form 424B5

that might otherwise prevail in the open market, including by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids, each of which is described below.

A stabilizing bid means the placing of any bid, or the effecting of any purchase, for the purpose of pegging, fixing or maintaining the price of a security.

Table of Contents

A syndicate covering transaction means the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering.

A penalty bid means an arrangement that permits the managing underwriter to reclaim a selling concession from a syndicate member in connection with the offering when offered securities originally sold by the syndicate member are purchased in syndicate covering transactions.

These transactions may be effected on the NYSE, in the over-the-counter market, or otherwise. Underwriters are not required to engage in any of these activities, or to continue such activities if commenced.

We and/or the selling securityholders, if applicable, may sell the securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we and/or the selling securityholders, if applicable, pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We and/or the selling securityholders, if applicable, may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from RTI at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we and/or the selling securityholders, if applicable, pay for solicitation of these contracts.

Underwriters and agents may be entitled under agreements entered into with RTI and/or the selling securityholders, if applicable, to indemnification by RTI and/or the selling securityholders, if applicable, against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the underwriters or agents may be required to make. Underwriters and agents may be customers of, engage in transactions with, or perform services for RTI and its affiliates in the ordinary course of business.

Each series of securities other than our common stock, which is listed on the NYSE, will be a new issue of securities and will have no established trading market. Any underwriters to whom securities are sold for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than our common stock, may or may not be listed on a national securities exchange.

LEGAL MATTERS

The validity of the securities offered by this prospectus and any prospectus supplement will be passed upon for us by Buchanan Ingersoll & Rooney PC, our outside counsel, and for any underwriters or agents by counsel named in the applicable prospectus supplement.

Additional legal matters may be passed on for us, or any underwriters, dealers or agents, by counsel we will name in the applicable prospectus supplement.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to RTI's Current Report on Form 8-K dated December 8, 2010 for the year ended December 31, 2009 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Table of Contents

\$350,000,000

1.625% Convertible Senior Notes due 2019

Prospectus Supplement

April 11, 2013

Barclays

Citigroup

FBR

Stifel

PNC Capital Markets LLC

Comerica Securities

RBS