

ALLEGHENY TECHNOLOGIES INC

Form S-4

December 27, 2010

Table of Contents

As filed with the Securities and Exchange Commission on December 27, 2010

Registration No. 333-

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

**Form S-4
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ALLEGHENY TECHNOLOGIES INCORPORATED
(Exact Name of Registrant as Specified in its Charter)

Delaware
*(State or Other Jurisdiction of
Incorporation or Organization)*

3317
*(Primary Standard Industrial
Classification Code Number)*

25-1792394
*(I.R.S. Employer
Identification Number)*

**1000 Six PPG Place
Pittsburgh, Pennsylvania 15222
(412) 394-2800**
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Jon D. Walton
**Executive Vice President, Human Resources,
Chief Legal and Compliance Officer and Corporate Secretary**
Allegheny Technologies Incorporated

**1000 Six PPG Place
Pittsburgh, Pennsylvania 15222
(412) 394-2800**

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

Copies to:

**Ronald D. West
K&L Gates LLP
K&L Gates Center
210 Sixth Avenue
Pittsburgh, Pennsylvania 15222
(412) 355-6500**

**Wayne E. Larsen
Vice President Law/Finance &
Secretary
Ladish Co., Inc.
5481 S. Packard Avenue
Cudahy, Wisconsin 53110
(414) 747-2611**

**Mark T. Plichta
Foley & Lardner LLP
777 E. Wisconsin Avenue
Milwaukee, Wisconsin 53202
(414) 271-2400**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement and the effective time of the merger referred to herein.

If the securities being registered on this form are to be offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. ☐

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

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

If applicable, place an x in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(1) (Cross-Border Issuer Tender Offer) ☐

Exchange Act Rule 14d-1(d) (Cross Border Third-Party Tender Offer) ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Common stock, \$0.10 par value	7,384,160	N/A	\$404,540,498	\$46,968

- (1) Represents a bona fide estimate of the maximum number of shares of Allegheny Technologies Incorporated common stock, \$0.10 par value, that may be issued in connection with the merger described herein, calculated as the product of (i) the sum of (A) 15,707,552, which is the number of shares of common stock, \$0.01 par value, of Ladish Co., Inc., referred to as Ladish common stock, that were outstanding on December 20, 2010, and (B) 500,000, which is the number of shares of Ladish common stock to be delivered to holders of restricted stock units under the Ladish Co., Inc. 2010 Restricted Stock Unit Plan, referred to as the 2010 Plan, on the effective date of the merger described herein, and (ii) 0.4556, the exchange ratio in the merger.
- (2) Estimated solely for the purpose of calculating the registration fee required by Section 6(b) of the Securities Act, and calculated pursuant to Rules 457(c) and 457(f)(1) under the Securities Act. This amount was calculated as (i) (a) \$48.96, which is the average of the high and low prices per share of Ladish common stock on December 17, 2010, on the Nasdaq Global Select Market, multiplied by (b) (i) the sum of (A) 15,707,552, which is the number of shares of Ladish common stock that were outstanding on December 20, 2010, and (B) 500,000, which is the number of shares of Ladish common stock to be delivered to holders of restricted stock units under the 2010 Plan on the effective date of the merger described herein, less (ii) \$388,981,248, the aggregate amount of cash that would be payable to the holders of Ladish common stock in the merger assuming that the merger consideration is paid with respect to an aggregate of 16,207,552 shares of Ladish common stock upon completion of the merger.

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

Table of Contents

The information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the U.S. Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This proxy statement/prospectus does not constitute an offer to sell these securities, nor a solicitation of any offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale is not permitted.

PRELIMINARY SUBJECT TO COMPLETION DATED DECEMBER 27, 2010

PROPOSED MERGER YOUR VOTE IS VERY IMPORTANT

Dear Shareholder:

You are invited to attend a Special Meeting of Shareholders of Ladish Co., Inc., referred to as Ladish, which will be held at :00 a.m., local time, on , 2011 at . At the special meeting, you will be asked to adopt the Agreement and Plan of Merger, referred to as the merger agreement, entered into by Ladish, Allegheny Technologies Incorporated, referred to as ATI, LPAD Co., a wholly owned subsidiary of ATI, referred to as LPAD, and PADL LLC, a wholly owned subsidiary of ATI, referred to as PADL, on November 16, 2010. Under the merger agreement, ATI will acquire Ladish through a merger of LPAD with and into Ladish, referred to as the merger, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI. Immediately following the merger, Ladish will be merged with and into PADL, with PADL continuing as the surviving entity and a wholly owned subsidiary of ATI. The merger agreement is attached as Annex A to this proxy statement/prospectus.

At the effective time and as a result of the merger, each outstanding share of Ladish common stock will be converted into the right to receive the sum of 0.4556 of a share of ATI common stock and \$24.00 in cash.

Common stock of Ladish is listed on the Nasdaq Global Select Market under the symbol LDSH. Common stock of ATI is listed on the New York Stock Exchange under the symbol ATI. Upon completion of the merger, we expect that Ladish common stock will be delisted.

This proxy statement/prospectus describes the merger agreement, the merger and the transactions contemplated by the merger agreement and provides information concerning the special meeting of Ladish shareholders. Before we can complete the merger, Ladish's shareholders must adopt the merger agreement. **We urge you to take the time to read this proxy statement/prospectus, and the documents incorporated into this proxy statement/prospectus by reference, carefully. Please pay particular attention to the section titled Risk Factors beginning on page 12.** You also can obtain information about Ladish and ATI from documents that we or ATI have filed or will file with the Securities and Exchange Commission prior to the special meeting.

After careful consideration, the Ladish board of directors has approved and adopted the merger agreement and the transactions contemplated thereby, including the merger, and determined that the merger agreement and the merger are fair to and otherwise in the best interests of Ladish shareholders and recommends that you vote FOR the adoption of the merger agreement and FOR the proposal to approve the adjournment or postponement of the special meeting for the solicitation of additional proxies in the event there are insufficient votes present, in person or represented by proxy, at the time of the special meeting to adopt the merger agreement.

Your vote is very important. Whether or not you plan to attend the special meeting, we urge you to submit your proxy as promptly as possible. Please refer to the instructions on the enclosed proxy card.

/s/ Gary J. Vroman
Gary J. Vroman
President and Chief Executive Officer
Ladish Co., Inc.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THE DISCLOSURES IN THIS PROXY STATEMENT/PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This proxy statement/prospectus is dated , 2011 and is first being mailed or otherwise delivered to Ladish shareholders on or about , 2011.

Table of Contents

SOURCES OF ADDITIONAL INFORMATION

This proxy statement/prospectus incorporates by reference important business and financial information about ATI and Ladish from documents that each company has filed with the Securities and Exchange Commission, referred to as the SEC, but which have not been included in or delivered with this proxy statement/prospectus. For a list of documents incorporated by reference into this proxy statement/prospectus and how you may obtain them, see **Where You Can Find More Information** beginning on page 88.

This information is available to you without charge upon your written or oral request. You can also obtain the documents incorporated by reference into this proxy statement/prospectus by accessing the SEC's website maintained at <http://www.sec.gov>.

In addition, Ladish's filings with the SEC are available to the public on Ladish's website, www.ladishco.com, and ATI's filings with the SEC are available to the public on ATI's website, www.atimetals.com. Information contained on Ladish's website, ATI's website or the website of any other person is not incorporated by reference into this proxy statement/prospectus, and you should not consider information contained on those websites as part of this proxy statement/prospectus.

ATI and Ladish will provide you with copies of their respective documents incorporated by reference into this proxy statement/prospectus, without charge, if you so request from:

Allegheny Technologies Incorporated
1000 Six PPG Place
Pittsburgh, Pennsylvania 15222-5479
Attention: Investor Relations
Telephone Number: (412) 394-2800

Ladish Co., Inc.
5481 South Packard Avenue
Cudahy, Wisconsin 53110
Attention: Investor Relations
Telephone Number: (414) 747-2611

If you wish to obtain any of these documents from ATI or Ladish, you should make your request no later than , 2011 to ensure timely delivery.

Information contained in this proxy statement/prospectus regarding ATI has been provided by, and is the responsibility of, ATI and information contained in this proxy statement/prospectus regarding Ladish has been provided by, and is the responsibility of, Ladish. No one has been authorized to give you any other information, and neither ATI nor Ladish take responsibility for any information that others may give you. This proxy statement/prospectus is dated , 2011. You should not assume that the information contained in, or incorporated by reference into, this proxy statement/prospectus is accurate as of any date other than that date. Neither Ladish's mailing of this proxy statement/prospectus to Ladish shareholders nor the issuance by ATI of common stock in connection with the merger will create any implication to the contrary.

This proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction to or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction.

Table of Contents

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS

TO THE SHAREHOLDERS OF LADISH CO., INC.:

NOTICE IS HEREBY GIVEN that a special meeting of holders of common stock of Ladish Co., Inc., referred to as Ladish, will be held at :00 a.m., local time, on , 2011 at , for the following purposes:

1. To consider and vote upon the proposal to adopt the Agreement and Plan of Merger, dated as of November 16, 2010, by and among Allegheny Technologies Incorporated, referred to as ATI, LPAD Co., a wholly owned subsidiary of ATI, referred to as LPAD, PADL LLC, a wholly owned subsidiary of ATI, and Ladish, as amended from time to time, pursuant to which LPAD will merge with and into Ladish, referred to as the merger, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI; and
2. To consider and vote upon a proposal to approve the adjournment of the meeting, if necessary, to solicit additional proxies if there are insufficient votes to adopt the merger agreement at the time of the special meeting.

Only shareholders of record at the close of business on , 2011 are entitled to notice of, and to vote at, the special meeting or postponements or adjournments thereof (unless the board of directors fixes a new record date for any such postponed or adjourned meeting).

Your vote is important. Whether or not you plan to attend the special meeting, please vote now by proxy in order to ensure the presence of a quorum. You may vote by telephone or via the Internet, as described on the enclosed proxy card, or by marking, signing and dating the enclosed proxy card on the reverse side and returning it promptly in the accompanying postage-paid envelope. A proxy may be revoked at any time prior to its exercise at the meeting, and your return of the enclosed proxy will not affect your right to vote your shares if you attend the meeting in person. Please review this proxy statement/prospectus for more complete information regarding the merger and the special meeting. If you do not return or submit your proxy or vote your shares by telephone or over the Internet or vote in person at the special meeting, the effect will be the same as a vote against the proposal to adopt the merger agreement.

The board of directors of Ladish has approved and adopted the merger agreement and the transactions contemplated thereby, including the merger, and determined that the merger agreement and the merger are fair to and otherwise in the best interests of Ladish shareholders and recommends that you vote FOR the adoption of the merger agreement and FOR the proposal to approve the adjournment or postponement of the special meeting for the solicitation of additional proxies in the event there are insufficient votes present, in person or represented by proxy, at the time of the special meeting to adopt the merger agreement.

Whether or not you plan to attend the special meeting in person, please vote your proxy by telephone or through the Internet, as described on the enclosed proxy card, or complete, date, sign and return the enclosed proxy card in the enclosed envelope. The enclosed envelope requires no postage if mailed in the United States. If you attend the special meeting, you may vote in person if you wish, even if you have previously returned your proxy card or voted by telephone or through the Internet.

By Order of the Board of Directors,

/s/ Wayne E. Larsen

Wayne E. Larsen
Vice President Law/Finance and Secretary

, 2011

TABLE OF CONTENTS

<u>Questions and Answers About the Special Meeting</u>	ii
<u>Summary</u>	1
<u>Selected Historical Consolidated Financial Data of ATI</u>	8
<u>Selected Historical Consolidated Financial Data of Ladish</u>	10
<u>Market Price and Dividend Information</u>	11
<u>Risk Factors</u>	12
<u>Cautionary Note Regarding Forward-Looking Statements</u>	18
<u>The Special Meeting</u>	20
<u>The Merger</u>	24
<u>The Merger Agreement</u>	48
<u>Material U.S. Federal Income Tax Consequences</u>	61
<u>Information About the Companies</u>	65
<u>Description of ATI Capital Stock</u>	66
<u>Comparison of Rights of ATI Stockholders and Ladish Shareholders</u>	69
<u>Legal Matters</u>	87
<u>Experts</u>	87
<u>Future Stockholder Proposals</u>	87
<u>Other Matters</u>	88
<u>Where You Can Find More Information</u>	88
 ANNEXES	
<u>Annex A Agreement and Plan of Merger</u>	A-1
<u>Annex B Opinion of Robert W. Baird & Co. Incorporated</u>	B-1
<u>EX-5.1</u>	
<u>EX-8.1</u>	
<u>EX-8.2</u>	
<u>EX-23.1</u>	
<u>EX-23.2</u>	
<u>EX-99.2</u>	
<u>EX-99.3</u>	

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING

The following questions and answers are intended to address briefly some questions that you, as a shareholder of Ladish, may have regarding the merger, the other transactions contemplated by the merger agreement and the special meeting. These questions and answers may not address all questions that may be important to you as a shareholder. To better understand these matters, and for a description of the legal terms governing the merger and other transactions contemplated by the merger agreement, you should carefully read this entire proxy statement/prospectus, including the Annexes, as well as the documents that have been incorporated by reference into this proxy statement/prospectus. See Where You Can Find More Information for the location of information incorporated by reference into this proxy statement/prospectus. All references in this proxy statement/prospectus to ATI refer to Allegheny Technologies Incorporated, a Delaware corporation; all references in this proxy statement/prospectus to Ladish refer to Ladish Co., Inc., a Wisconsin corporation; all references in this proxy statement/prospectus to LPAD refer to LPAD Co., a Wisconsin corporation and a wholly owned subsidiary of ATI; all references in this proxy statement/prospectus to PADL refer to PADL LLC, a Wisconsin limited liability company and a wholly owned subsidiary of ATI; all references in this proxy statement/prospectus to the merger agreement refer to the Agreement and Plan of Merger, dated as of November 16, 2010, by and among ATI, LPAD, PADL and Ladish, a copy of which is included as Annex A to this proxy statement/prospectus; and all references in this proxy statement/prospectus to the merger refer to the merger of LPAD with and into Ladish, with LPAD continuing as the surviving entity and a wholly owned subsidiary of ATI.

Q: Why am I receiving this document?

A: Under the terms of the merger agreement, LPAD will be merged with and into Ladish, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI. Following the merger, Ladish will no longer be a separate publicly held corporation. Immediately following the merger, Ladish will be merged with and into PADL, with PADL continuing as the surviving entity and a wholly owned subsidiary of ATI. Following the merger and other transactions contemplated by the merger, ATI expects to continue to operate the Ladish businesses under the name Ladish Co. See The Merger and The Merger Agreement. A copy of the merger agreement is included in this proxy statement/prospectus as Annex A.

This document is both a proxy statement of Ladish and a prospectus of ATI. It is a proxy statement of Ladish because the Ladish board of directors is soliciting proxies from its shareholders to vote on the adoption of the merger agreement at the special meeting of its shareholders described in this proxy statement/prospectus, referred to as the special meeting, as well as the other matters set forth in the notice of the special meeting and described in this proxy statement/prospectus, and your proxy will be used at the special meeting or at any adjournment or postponement of the special meeting. It is a prospectus because ATI will issue ATI common stock to the holders of Ladish common stock as a portion of the consideration to be paid in the merger. This document contains important information about the merger agreement, the merger and the special meeting. You should read this document carefully.

Your vote is very important. ATI and Ladish encourage you to vote as soon as possible. The enclosed proxy card allows you to vote your Ladish shares without attending the special meeting. If you are a registered shareholder, you may vote by proxy either by telephone, via the Internet or by completing, signing, dating and returning the enclosed proxy card by mail. For more specific information on how to vote, please see the questions and answers below and The Special Meeting.

Q: On what am I being asked to vote?

A: At the special meeting, Ladish common shareholders will be asked (1) to adopt the merger agreement and (2) to approve the adjournment of the special meeting for the solicitation of additional proxies in the event there are insufficient votes present, in person or represented by proxy, at the time of the special meeting to adopt the merger agreement. See The Special Meeting Purposes of the Special Meeting.

Q: What will happen in the merger?

A: If Ladish shareholder approval as described in this proxy statement/prospectus is obtained and all other conditions to the merger have been satisfied (or, to the extent legally permissible, waived), LPAD will merge

Table of Contents

with and into Ladish, upon the terms and subject to the conditions set forth in the merger agreement. Upon the completion of the merger, the separate corporate existence of LPAD will cease, and Ladish will continue as the surviving entity in the merger and become a wholly owned subsidiary of ATI. Immediately following the merger, Ladish will be merged with and into PADL, with PADL continuing as the surviving entity and a wholly owned subsidiary of ATI. Following the merger, ATI expects to continue to operate the Ladish businesses under the name Ladish Co. See The Merger Structure; Merger Consideration.

Q: What will I receive in exchange for my Ladish common stock in the merger?

A: Each of your shares of Ladish common stock will be converted in the merger into the right to receive 0.4556 of a share of ATI common stock and \$24.00 in cash. ATI will not issue fractional shares in the merger. Instead, it will pay cash for fractional shares of common stock based on the arithmetic average of the average of the daily high and low sales prices per share of ATI common stock as reported on the New York Stock Exchange, referred to as the NYSE, on each of the 10 trading days immediately preceding the date on which the merger is consummated. See The Merger Agreement Structure; Merger Consideration and The Merger No Issuance of Fractional Shares.

Q: Will I receive future dividends following the merger?

After completion of the merger, you will be entitled only to dividends on any shares of ATI common stock that you own as of the applicable record date for such dividend. While ATI provides no assurances as to the level or payment of any future dividends on shares of its common stock, and ATI's board of directors has the power to modify dividend policy at any time, ATI presently pays dividends at a quarterly rate of \$0.18 per share of ATI common stock. See Market Price and Dividend Information.

Q: How much stock will the current shareholders own in the combined company?

A: As of the date of this proxy statement/prospectus, ATI has approximately million shares of common stock outstanding and expects to issue approximately million shares of common stock in connection with the merger, including with respect to outstanding Ladish restricted stock units. As a result, as of the closing of the merger, it is expected that current ATI stockholders will own approximately % and that current Ladish shareholders will own approximately % of ATI's outstanding shares on a fully diluted basis.

Q: Will Ladish's rights plan apply to the merger?

No. On November 16, 2010, immediately prior to its execution of the merger agreement, Ladish amended its Shareholder Rights Agreement, dated October 9, 2009, between Ladish and American Stock Transfer & Trust Company, LLC, referred to as the rights agreement, for the purpose of rendering the rights agreement inapplicable to the merger agreement and the transactions contemplated thereby, including the merger.

Q: What are the United States federal income tax consequences of the merger?

A: You generally will recognize gain, but not loss, equal to the lesser of: (1) the amount of cash you receive in the merger or (2) the excess, if any, of (a) the sum of the amount of the cash and the fair market value of ATI common stock that you receive in the merger, determined as of the closing date of the merger, over (b) your tax basis in the Ladish common stock surrendered in the merger. You should read Material U.S. Federal Income Tax Consequences for a more complete discussion of the U.S. federal income tax consequences of the transaction. Tax matters can be complicated, and the tax consequences of the transaction to you will depend on your particular tax situation. Accordingly, you are urged to consult your own tax advisors to determine the particular federal, state, local or foreign income, reporting or other tax consequences of the merger to you.

Q: When do the parties expect to complete the merger?

A: ATI and Ladish are working to complete the merger as quickly as possible and anticipate that it will be completed during the first quarter of 2011. However, the merger is subject to approval by Ladish's shareholders, various regulatory approvals and other conditions, and it is possible that factors outside the control of both companies could result in the merger being completed at a later time, or not at all. Unless ATI and Ladish otherwise agree, the merger will be completed no later than the second business day after all of the closing conditions in the merger agreement are satisfied or waived in accordance with their terms.

iii

Table of Contents

Q: How will the combined company be managed?

A: In the merger, LPAD will be merged with and into Ladish, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI. Immediately following the merger, Ladish will be merged with and into PADL, with PADL continuing as the surviving entity and a wholly owned subsidiary of ATI. PADL will be effectively subject to the management of the ATI board of directors. It is not expected that any members of the Ladish board of directors will become members of the ATI board of directors upon consummation of the merger and the other transactions contemplated by the merger agreement.

Q: Do persons involved in the merger have interests that may conflict with mine as a Ladish shareholder?

A: Yes. When considering the recommendations of Ladish's board of directors, you should be aware that certain Ladish directors and executive officers have interests in the merger that are different from, or are in addition to, yours. These interests include:

the possible employment of certain of Ladish's executive officers by ATI after the merger, although no agreements have been proposed or entered into;

the beneficial ownership of restricted stock units which will vest in full as of the effective date of the merger and potential to receive unissued shares eligible for issuance under Ladish's 2010 Restricted Stock Unit Plan, referred to as the 2010 Plan, on the effective date of the merger;

the eligibility of certain executive officers to receive payments from a retention pool to be established by ATI; and

the receipt of indemnification and liability insurance benefits by directors and executive officers of Ladish from ATI.

See The Merger's Interests of Certain Persons in the Merger.

Q: How does Ladish's board of directors recommend that I vote on the proposals?

A: The board of directors of Ladish recommends that you vote **FOR** the adoption of the merger agreement and **FOR** the adjournment, if necessary, of the special meeting to solicit additional proxies in favor of adoption of the merger agreement. See The Merger's Ladish's Reasons for the Merger; Recommendation of the Ladish Board of Directors.

Q: Are there risks that I should consider in deciding whether to vote for the merger?

A: Yes. In evaluating the merger, you should consider carefully the factors discussed in the section titled Risk Factors.

Q: What will happen if the merger is not completed?

A: If the merger agreement is not adopted by Ladish shareholders or if the merger is not completed for any other reason, you will not receive any payment for your shares of Ladish common stock in connection with the merger. Instead, Ladish will remain an independent public company, and its common stock will continue to be listed and traded on the Nasdaq Global Select Market. If the merger agreement is terminated under specified circumstances,

Ladish will be required to pay ATI a termination fee of \$31.0 million as described under The Merger Agreement Termination Fee.

Q: Are there any other matters to be addressed at the special meeting?

A: Ladish is not aware of any other business to be acted upon at the special meeting. If, however, other matters are properly brought before the special meeting, your proxies will have discretion to vote or act on those matters according to their best judgment, and they intend to vote the shares as the Ladish board of directors may recommend.

Q: When is this proxy statement/prospectus being mailed?

A: This proxy statement/prospectus and the related proxy card are first being sent to Ladish shareholders on or about , 2011.

Table of Contents

Q: When and where will the special meeting be held?

A: The special meeting will take place on _____, 2011, at the time and location specified on the cover page of this proxy statement/prospectus. See The Special Meeting Date, Time and Place of the Special Meeting.

Q: Who is entitled to vote at the special meeting?

A: All holders of Ladish common stock who held shares at the close of business on _____, 2011, which is the record date for the special meeting, are entitled to receive notice of and to vote at the special meeting. If the special meeting is postponed or adjourned the Ladish board of directors may fix a new record date for any such postponed or adjourned meeting under certain circumstances. If a bank, broker or other nominee holds your shares, then you are not the holder of record and you must ask your bank, broker or other nominee how you can vote in person at the special meeting. See The Special Meeting Record Date; Outstanding Shares; Shares Entitled to Vote.

Q: Who may attend the special meeting?

A: Ladish shareholders (or their authorized representatives) and Ladish's invited guests may attend the special meeting. Shareholders may call Ladish's secretary at (414) 747-2611 to obtain directions to the location of the special meeting.

Q: How do I vote my shares at the special meeting?

A: If you are entitled to vote at the special meeting and hold your shares in your own name, you can submit a proxy or vote in person by completing a ballot at the special meeting. However, Ladish encourages you to submit a proxy before the special meeting even if you plan to attend the special meeting. A proxy is a legal designation of another person to vote your shares of Ladish common stock on your behalf. If you hold shares in your name, you may submit a proxy for your shares by:

calling the toll-free number specified on the enclosed proxy card and following the instructions when prompted;

accessing the Internet web site specified on the enclosed proxy card and following the instructions provided to you; or

filling out, signing and dating the enclosed proxy card and mailing it in the prepaid envelope included with these proxy materials.

If you submit a proxy by telephone or the Internet web site, please do not return your proxy card by mail.

See the response to the next question for how to vote shares held through a broker or other nominee.

Q: If my shares are held in _____ street name by my broker, will my broker automatically vote my shares for me?

A: No. If your shares are held in an account at a broker or through another nominee, you must instruct the broker or other nominee on how to vote your shares by following the instructions that the broker or other nominee provides to you with these materials. Most brokers offer the ability for shareholders to submit voting instructions by mail by completing a voting instruction card, by telephone or via the Internet.

If you do not provide voting instructions to your broker, your shares will not be voted on any proposal on which your broker does not have discretionary authority to vote. This is called a broker non-vote. In these cases, the broker can register your shares as being present at the special meeting for purposes of determining a quorum but will not be able to vote on those matters for which specific authorization is required. Brokers will not have discretionary authority to vote on the proposal to adopt the merger agreement. A broker non-vote will have the same effect as a vote **AGAINST** the adoption of the merger agreement.

If you hold shares through a broker or other nominee and wish to vote your shares in person at the special meeting, you must obtain a proxy from your broker or other nominee and present it to the inspector of election with your ballot when you vote at the special meeting.

See The Special Meeting How to Vote.

Table of Contents

Q: Why is my vote important?

- A: If you do not return your proxy card, submit your proxy by telephone or through the Internet or vote in person at the special meeting, it will be more difficult for Ladish to obtain the necessary quorum to hold its special meeting and the shareholder approval necessary to consummate the merger. In addition, your failure to return your proxy card, submit your proxy by telephone or through the Internet or vote in person at the special meeting will have the same effect as a vote against the adoption of the merger agreement.

Q: What constitutes a quorum for the meeting?

- A: A majority of the shares of Ladish common stock issued and outstanding and entitled to vote at the special meeting must be present or represented by proxy to constitute a quorum for action on the matters to be voted upon at the special meeting. All shares of Ladish common stock represented at the special meeting, including abstentions and broker non-votes, will be treated as present for purposes of determining the presence or absence of a quorum for all matters voted on at the special meeting. See The Special Meeting Quorum; Vote Required; Abstentions and Broker Non-Votes.

Q: How many votes are required for the approval of each item?

- A: Adoption of the merger agreement requires the affirmative vote of a majority of all the votes entitled to be cast by holders of outstanding shares of Ladish common stock. Any adjournment of the special meeting by vote of Ladish shareholders for the purpose of soliciting additional proxies or for any other purpose must be approved by the affirmative vote of a majority of the shares of Ladish common stock represented at the special meeting. See The Special Meeting Quorum; Vote Required; Abstentions and Broker Non-Votes.

Q: How will abstentions and broker non-votes be counted?

- A: Abstentions and broker non-votes are counted as present and entitled to vote for purposes of determining a quorum. Because the affirmative vote of a majority of all the votes entitled to be cast by the holders of Ladish common stock is needed for us to proceed with the merger, abstentions and broker non-votes will have the same effect as a vote against the adoption of the merger agreement. See The Special Meeting Quorum; Vote Required; Abstentions and Broker Non-Votes.

Q: What happens if I sell my shares after the record date but before the special meeting?

- A: The record date for the special meeting is earlier than the date of the special meeting and the date that the merger is expected to be completed. If you transfer your Ladish shares after the record date but before the date of the special meeting, you will retain your right to vote at the special meeting (provided that such shares remain outstanding on the date of the special meeting), but you will not have the right to receive the merger consideration. In order to receive the merger consideration, you must hold your Ladish shares through completion of the merger.

Q: What do I do if I receive more than one proxy statement/prospectus or set of voting instructions?

- A: You may receive more than one set of voting materials for the special meeting, including multiple copies of this proxy statement/prospectus and/or voting instruction forms. This can occur if you hold shares in more than one brokerage account, if you hold shares directly as a record holder and also in street name, or otherwise through a nominee, and in certain other circumstances. If you receive more than one set of voting materials, each should be

voted and/or returned separately in order to ensure that all of your shares are voted. See [Where You Can Find More Information](#) [Householding Information](#).

Q: Can I change my vote?

A: Yes. If you are a holder of record as of the record date, you can change your proxy instructions after you have submitted your proxy card, or submitted your proxy by telephone or through the Internet, by:

submitting a new proxy with a later date, by using the telephone or Internet voting procedures described above, or by completing, signing, dating and returning a new proxy card by mail to Ladish;

attending the special meeting and voting in person; or

vi

Table of Contents

sending written notice of revocation to Ladish's secretary.

For more detailed procedures on revoking a proxy, see the description under "The Special Meeting - Revoking Your Proxy."

If you own your shares through a broker, you must follow the directions you receive from your broker in order to change or revoke your vote. If you have shares credited to you through the Ladish Savings and Deferral Investment Plan as of the record date, you must provide new directions to the trustee for that plan at any time prior to the reply date in order to change or revoke your vote. You are not limited as to the number of changes of voting directions you may give the trustee prior to the reply date.

Q: Should I send in my Ladish stock certificates now?

A: No. You should not send in your stock certificates at this time. Ladish shareholders who hold their shares in certificated form will need to exchange their Ladish stock certificates for the cash and ATI common stock provided for in the merger agreement upon completion of the transaction. ATI will send Ladish shareholders instructions for exchanging Ladish stock certificates at that time. Ladish shareholders who hold their shares in book-entry form will also receive instructions for exchanging their shares after the transaction is completed.

Q: Am I entitled to dissenters' rights?

A: No. Under Wisconsin law, the holders of Ladish common stock are not entitled to dissenters' rights in connection with the merger. See "The Merger - Dissenters' Rights."

Q: Is completion of the merger agreement subject to any conditions?

A: Yes. In addition to the adoption of the merger agreement by Ladish shareholders, completion of the merger requires the receipt of the necessary governmental and regulatory approvals and the satisfaction or, if permitted under applicable law, waiver of the other conditions specified in the merger agreement. See "The Merger Agreement - Conditions to the Closing of the Merger."

Q: Can Ladish terminate the merger agreement in order to accept a superior proposal to acquire Ladish?

A: It depends. Under certain circumstances, Ladish may terminate the merger agreement prior to the adoption of the merger agreement by the Ladish shareholders in order to accept a superior proposal from a third party to acquire Ladish. After the Ladish shareholders have adopted the merger agreement, Ladish may not terminate the merger agreement to accept such a superior proposal. See "The Merger Agreement - Termination of the Merger Agreement."

Q: Will the shareholder vote to approve the merger occur before regulatory approval of the merger?

A: The shareholder vote to approve the merger is scheduled to occur on _____, 2011. The merger is subject to review by U.S. antitrust authorities under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, referred to as the HSR Act. On December 1, 2010, ATI and Ladish filed the requisite notification and report forms under the HSR Act with the Federal Trade Commission, referred to as the FTC, and the Antitrust Division of the Department of Justice, referred to as the DOJ. The merger can be completed only after expiration or termination of the applicable waiting periods required under the HSR Act and any other applicable antitrust law. ATI and Ladish have agreed to use their respective reasonable best efforts to take, or cause to be taken, all actions, and to do, or

cause to be done, and cooperate with each other in doing, all things necessary, proper or advisable to obtain all approvals, consents, registrations, permits, authorizations and other confirmations from any governmental authority or third party necessary, proper or advisable to consummate the merger. ATI and Ladish are working to obtain the required regulatory approvals and consents. It is possible that one or more required regulatory approvals may not be received, may be received later than expected or may contain conditions that adversely affect ATI's and Ladish's ability to obtain the anticipated benefits of the merger.

Table of Contents

Q: When do you expect to complete the merger?

A: Ladish and ATI are working towards completing the merger promptly. Ladish and ATI currently expect to complete the merger in the first quarter of 2011, subject to receipt of Ladish's shareholder approval, governmental and regulatory approvals and other usual and customary closing conditions. However, no assurance can be given as to when, or if, the merger will occur.

Q: What do I need to do now?

A: After you have carefully read this entire document, please vote your shares of Ladish common stock. You may do this either by signing, dating and mailing the enclosed proxy card or by submitting your proxy by telephone or through the Internet, as explained in the voting instructions attached to your proxy card. This will enable your shares to be represented and voted at the special meeting. If you submit a valid proxy and do not indicate how you want to vote, Ladish will count your proxy as a vote in favor of the proposals described in this document and submitted at the special meeting.

The Ladish board of directors recommends that Ladish shareholders vote **FOR the adoption of the merger agreement and **FOR** the adjournment of the special meeting, if necessary, to permit solicitation of additional proxies in favor of the proposal to adopt the merger agreement.**

Q: Whom should I call with questions?

A: Ladish shareholders with any questions about the transaction should call Ladish's Investor Relations Department at (414) 747-2611.

Q: Where can I find more information about ATI and Ladish?

A: You can find more information about ATI and Ladish from various sources as described under **Where You Can Find More Information**.

Table of Contents

SUMMARY

This brief summary highlights selected information from this proxy statement/prospectus and may not contain all of the information that may be important to you. Accordingly, ATI and Ladish urge you to read carefully this entire proxy statement/prospectus, the Annexes and the other documents to which ATI and Ladish refer you for a more complete understanding of the merger and the other transactions contemplated by the merger agreement. In addition, ATI and Ladish incorporate by reference into this proxy statement/prospectus important business and financial information about ATI and Ladish. You may obtain the information incorporated by reference into this proxy statement/prospectus without charge by following the instructions in the section entitled "Where You Can Find More Information." Each item in this summary includes a page reference directing you to a more complete description of that item.

ATI and Ladish Propose That ATI Acquire Ladish (Page 24)

ATI and Ladish propose that ATI acquire Ladish by merging LPAD with and into Ladish, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI. Upon the completion of the merger, the separate corporate existence of LPAD will cease, and Ladish will continue as the surviving entity in the merger and become a wholly owned subsidiary of ATI. Immediately following the merger, Ladish will be merged with and into PADL, with PADL continuing as the surviving entity and a wholly owned subsidiary of ATI. Following the merger, ATI expects to continue to operate the Ladish businesses under the name Ladish Co. ATI's common stock will continue to trade on the NYSE under the symbol ATI. If Ladish shareholder approval and regulatory approvals are obtained and the other conditions to closing are satisfied, ATI and Ladish expect to complete the merger during the first quarter of 2011.

For Each Share of Ladish Common Stock, Ladish Shareholders Will Receive in the Merger 0.4556 of a Share of ATI Common Stock and \$24.00 in Cash (Page 48)

Upon completion of the merger, each of your shares of Ladish common stock will be converted into the right to receive 0.4556 of a share of ATI common stock and \$24.00 in cash. ATI will not issue fractional shares in the merger. Instead, it will pay cash for fractional shares of common stock based on the arithmetic average of the average of the daily high and low sales prices per share of ATI common stock as reported on the NYSE on each of the 10 trading days immediately preceding the date on which the merger is consummated.

If the merger were completed on _____, 2011, and you owned 100 shares of Ladish common stock immediately prior to the effective time of the merger, you would have received at the effective time of the merger:

\$2,400.00 in cash from ATI;

45 shares of ATI common stock; and

Assuming that the arithmetic average of the average of the daily high and low sales prices per share of ATI common stock as reported on the NYSE on each of the 10 trading days immediately preceding _____, 2011 was \$ _____, \$ _____ in cash for the fractional shares of ATI common stock (calculated by multiplying 0.5600 (the remaining fractional interest in an ATI common share) by \$ _____).

The Number of Shares of ATI Common Stock to Be Issued in the Merger Is Fixed, and Therefore the Value of the Merger Consideration Will Fluctuate with Market Prices (Page 48)

The number of shares of ATI common stock and cash to be issued in the merger for each Ladish common share is fixed and will not be adjusted for changes in the market price of either ATI common stock or Ladish common stock. Accordingly, any change in the price of ATI common stock prior to the merger will affect the market value of the merger consideration that Ladish shareholders will receive as a result of the merger.

You should obtain current stock price quotations for ATI common stock and Ladish common stock. ATI common stock is listed on the NYSE under the symbols ATI, and Ladish common stock is listed on the Nasdaq Global Select Market under the symbol LDSH. The following table shows the closing prices for ATI common stock and Ladish common stock and the implied per share value in the merger to Ladish shareholders on

Table of Contents

November 16, 2010, the last trading day completed before ATI and Ladish announced the execution of the merger agreement and on , 2011, the last practicable day before the date of this proxy statement/prospectus:

	ATI Common Stock	Ladish Common Stock	Implied Value of One Share of Ladish Common Stock
November 16, 2010	\$ 49.94	\$ 29.33	\$ 46.75
, 2011	\$	\$	\$

The Merger Will Be Accounted for as an Acquisition (Page 47)

The merger will be treated as an acquisition by ATI of Ladish in conformity with accounting principles generally accepted in the United States, referred to as GAAP.

Material United States Federal Income Tax Consequences (Page 61)

You generally will recognize gain, but not loss, equal to the lesser of: (1) the amount of cash you receive in the merger or (2) the excess, if any, of (a) the sum of the amount of the cash and the fair market value of ATI common stock that you receive in the merger, determined as of the closing date of the merger, over (b) your tax basis in the Ladish common stock surrendered in the merger. You should read Material U.S. Federal Income Tax Consequences for a more complete discussion of the U.S. federal income tax consequences of the transaction. Tax matters can be complicated, and the tax consequences of the transaction to you will depend on your particular tax situation. Accordingly, you are urged to consult your own tax advisors to determine the particular federal, state, local or foreign income, reporting or other tax consequences of the merger to you.

Opinion of Ladish's Financial Advisor (Page 31 and Annex B)

Robert W. Baird & Co. Incorporated, referred to as Baird, has provided an opinion to Ladish's board of directors, dated as of November 16, 2010, to the effect that, subject to the contents of such opinion, including the various assumptions and limitations set forth therein, the merger consideration to be received by the holders of Ladish common stock (other than ATI and its affiliates) in the merger was fair, from a financial point of view, to the holders of Ladish common stock (other than ATI and its affiliates). Baird's opinion did not constitute a recommendation to any Ladish shareholder as to how such shareholder should vote with respect to the adoption of the merger agreement. Baird expressed no opinion about the fairness of the amount or nature of the merger consideration to any of Ladish's creditors, officers, directors or employees, or any class of such persons, relative to the merger consideration to be received by Ladish's shareholders. The full text of Baird's written opinion, which sets forth the assumptions made, general procedures followed, matters considered and limitations on the scope of review undertaken by Baird in rendering its opinion, is attached as Annex B to this proxy statement/prospectus. You are urged to read the opinion in its entirety.

Interests of Ladish's Directors and Officers in the Merger (Page 43)

Certain of Ladish's directors and executive officers have interests in the merger that are different from, or are in addition to, their interests solely as shareholders of Ladish. The Ladish board of directors knew about these additional interests and considered them when it approved the merger agreement. These interests include:

the possible employment of certain of Ladish's executive officers by ATI after the merger, although no agreements have been proposed or entered into;

the beneficial ownership of restricted stock units which will vest in full as of the effective date of the merger and potential to receive unissued shares eligible for issuance under the 2010 Plan on the effective date of the merger;

the eligibility of certain executive officers to receive payments from a retention pool to be established by ATI; and

the receipt of indemnification and liability insurance benefits by directors and executive officers of Ladish from ATI.

Table of Contents

The Ladish Board of Directors Recommends That You Vote FOR Adopting the Merger Agreement (Page 29)

The Ladish board of directors, with one director dissenting, has approved and adopted the merger agreement and the transactions contemplated thereby, including the merger, resolved to submit the merger agreement to the Ladish shareholders and determined that the merger agreement and the merger are fair to and otherwise in the best interests of Ladish shareholders and recommends that you vote **FOR** the adoption of the merger agreement.

ATI and Ladish Have Agreed When and How Ladish Can Consider Third-Party Acquisition Proposals (Page 53)

In the merger agreement, Ladish has agreed not to, and to cause its subsidiaries and representatives not to, directly or indirectly, solicit, initiate, cause, facilitate or encourage (including by way of furnishing information) any inquiries or proposals from any third party that constitute, or may reasonably be expected to lead to, a takeover proposal to acquire Ladish or its businesses. In addition, Ladish has agreed not to participate in discussions or negotiations with any third party regarding such a takeover proposal, accept such a takeover proposal or enter into any agreement related to such a takeover proposal or enter into any agreement that would require Ladish to abandon the merger or terminate the merger agreement. However, if Ladish (i) receives an unsolicited, bona fide written acquisition proposal from a third party prior to the adoption of the merger agreement by Ladish's shareholders in circumstances not involving a breach of the merger agreement and (ii) provides ATI with not less than 24 hours written notice of its intention to take such action, Ladish may participate in discussions and negotiations with and furnish confidential information to the third party provided that, among other requirements, the Ladish board of directors reasonably determines in good faith (after receiving the advice of a financial advisor of nationally recognized reputation) that the takeover proposal is a superior proposal and (after considering applicable provisions of state law and after consulting with and receiving the advice of outside counsel) that the failure to take such action is reasonably likely to constitute a breach by the Ladish board of directors of its fiduciary duties to Ladish shareholders under applicable law. After the adoption of the merger agreement by Ladish's shareholders, Ladish may not participate in discussions or negotiations with or provide confidential information to a third party, and Ladish may not terminate the merger agreement to accept a superior proposal.

Adoption of the Merger Agreement by Ladish's Shareholders Requires the Affirmative Vote of a Majority of All the Votes Entitled to be Cast by Holders of Outstanding Shares of Ladish Common Stock. (Page 20)

Adoption of the merger agreement requires the affirmative vote of a majority of all the votes entitled to be cast by holders of outstanding shares of Ladish common stock as of _____, 2011, the record date for the special meeting. As of that date, Ladish's directors and executive officers had the right to vote approximately _____ shares of the then-outstanding Ladish common stock, or approximately _____ % of the shares entitled to vote at the special meeting. Ladish expects that each of its directors and executive officers will vote to adopt the merger agreement, although there is no requirement for them to do so.

Treatment of Outstanding Equity and Deferred Compensation Awards (Page 42)

Restricted Stock Units.

Under the 2010 Plan, all restricted stock units outstanding as of the date of the merger will vest in full, and shares deliverable under vested restricted stock units will be issued to participants in the 2010 Plan in a single lump sum on the date of the merger. In addition, any shares remaining unissued under the 2010 Plan as of the date of the merger will be issued to participants in the 2010 Plan who are employees or affiliates of Ladish immediately prior to the merger on a pro rata basis based on the number of restricted stock units then held by the participant.

Deferred Compensation.

All awards of deferred compensation under Ladish's Long-Term Incentive Award Plan, referred to as the 2006 Plan, will become immediately and fully vested upon completion of the merger if the participant is employed by Ladish or an affiliate of Ladish immediate prior to the date on which the merger is completed. Under Ladish's

Table of Contents

Elective Deferred Compensation Plan, referred to as the Deferred Compensation Plan, amounts that have been deferred and any earnings on those amounts will be paid to participants in a single lump sum within seven days of the consummation of the merger.

Retention Pool (Page 43)

Pursuant to the terms of the merger agreement, ATI has agreed to establish a retention pool in an amount of approximately \$7.0 million to make payments to certain Ladish employees who remain employees of PADL or any of its affiliates for a period of no less than six months following the effective date of the merger, referred to as the retention period. One half of the amounts awarded under the retention pool will be paid promptly after the effective time of the merger, and one half of the amounts awarded under the retention pool will be paid at the end of the retention period to eligible individuals, subject to the requirement that an eligible individual who ceases to be an employee of PADL or any affiliate of PADL during the retention period, except if terminated or caused to be terminated by ATI without cause, will no longer be eligible to receive the payment due at the end of the retention period and will repay ATI a portion of the initial amount paid on a pro rata basis. An eligible individual terminated by or caused to be terminated by PADL or any affiliate of PADL without cause during the retention period will be eligible to retain the initial payment and receive the subsequent payment from the retention pool. ATI, in consultation with Ladish management, will determine the allocation of the retention pool shortly before, or at, the closing of the merger.

Dissenters' Rights (Page 46)

Under Wisconsin law, the holders of Ladish common stock are not entitled to dissenters' rights in connection with the merger.

ATI and Ladish Must Meet Several Conditions to Complete the Merger (Page 56)

ATI's and Ladish's obligations to complete the merger depend on a number of conditions being met. These conditions include:

- the adoption of the merger agreement by the Ladish shareholders;

- the expiration or termination of the applicable waiting period under the HSR Act and any other applicable antitrust law, and the taking of all actions required by, and the making of all filings required to be made with, any governmental authority under any antitrust law that are necessary to permit the consummation of the merger;

- the absence of any law, injunction, judgment or ruling enacted, promulgated, issued, entered, amended or enforced by any governmental authority in effect enjoining, restraining, preventing or prohibiting consummation of the merger or making the consummation of the merger illegal;

- the effectiveness under the Securities Act of 1933, as amended, referred to as the Securities Act, of the registration statement of which this proxy statement/prospectus forms a part and the absence of any stop order or proceedings seeking a stop order with respect to such registration statement;

- the approval for listing of the shares of ATI common stock to be issued in the merger on the NYSE, subject to official notice of the issuance; and

subject to certain exceptions and limitations, the accuracy of the other's representations and warranties and the performance in all material respects of its covenants.

Where permitted by applicable law, either of ATI or Ladish could choose to waive a condition to its respective obligations to complete the merger even when that condition has not been satisfied. ATI and Ladish cannot be certain when, or if, the conditions to the merger will be satisfied or waived, or that the merger will be completed.

ATI and Ladish Must Obtain Regulatory Approvals to Complete the Merger (Page 55)

ATI and Ladish cannot complete the merger unless they receive approvals or waivers of approval from applicable regulatory authorities. The merger is subject to review by U.S. antitrust authorities under the HSR Act.

Table of Contents

On December 1, 2010, ATI and Ladish filed the requisite notification and report forms under the HSR Act with the FTC and the Antitrust Division of the DOJ. The merger can be completed only after expiration or termination of the applicable waiting periods required under the HSR Act and any other applicable antitrust law. ATI and Ladish are working to obtain the required regulatory approvals and consents. It is possible that one or more required regulatory approvals may not be received or may be received later than expected. ATI and Ladish have agreed to use their respective reasonable best efforts to take, or cause to be taken, all actions, and to do, or cause to be done, and to assist and cooperate with each other in doing, all things necessary, proper or advisable to obtain all approvals, consents, registrations, permits, authorizations and other confirmations from any governmental authority or third party necessary, proper or advisable to consummation the merger.

ATI and Ladish May Terminate the Merger Agreement in Certain Circumstances (Page 58)

The merger agreement may be terminated at any time prior to the effective time of the merger, notwithstanding the adoption of the merger agreement by Ladish's shareholders in certain circumstances, including:

by mutual written consent of ATI and Ladish;

by either ATI or Ladish, if:

the merger is not consummated on or before June 30, 2011; provided that a party may not terminate the merger agreement if the failure to consummate the merger was primarily due to a failure by that party to perform any of its obligations under the merger agreement;

any final, non-appealable law, injunction, judgment or ruling enacted, promulgated, issued, entered, amended or enforced by any governmental authority is in effect that enjoins, restrains, prevents or prohibits consummation of the merger or makes the consummation of the merger illegal; or

the Ladish shareholders do not vote to adopt the merger agreement at the special meeting; provided that Ladish may not terminate the merger agreement if it has failed to comply in all material respects with its covenants related to the registration statement of which this proxy statement/prospectus forms a part, holding the special meeting and the non-solicitation of takeover proposals.

by ATI, if:

Ladish has breached or failed to perform any of its representations, warranties, covenants or agreements set forth in the merger agreement, or if any of the representations or warranties of Ladish set forth in the merger agreement fails to be true, which breach or failure, if it occurred or was continuing as of the closing date of the merger, would give rise to the failure of a condition to ATI's obligation to close the merger and is incapable of being cured or is not cured by Ladish prior to the earlier of the 30th calendar day following Ladish's receipt of written notice of such breach or failure from ATI and June 30, 2011;

(i) Ladish's board of directors (A) withdraws or modifies, in a manner adverse to ATI, its recommendation that the Ladish shareholders adopt the merger agreement or (B) fails to reaffirm its recommendation that the Ladish shareholders adopt the merger agreement within seven days after a takeover proposal is made public and receipt of a written request to so reaffirm from ATI or (ii) prior to the adoption of the merger agreement by Ladish's shareholders, Ladish willfully and materially breaches its covenants in the merger agreement related to the non-solicitation of takeover proposals or its covenant to hold the special meeting; or

there have occurred any events or changes that, individually or in the aggregate, have had or would reasonably be expected to have a material adverse effect on Ladish; or

by Ladish, if:

ATI has breached or failed to perform any of its representations, warranties, covenants or agreements set forth in the merger agreement, or if any of the representations or warranties of ATI set forth in the merger agreement fails to be true, which breach or failure, if it occurred or was continuing as of the closing date of the merger, would give rise to the failure of a condition to Ladish's obligation to close the merger and is incapable of being cured or is not cured by ATI prior to the earlier of the 30th calendar day following ATI's receipt of written notice of such breach or failure from Ladish and June 30, 2011; or

Table of Contents

at any time prior to the adoption of the merger agreement by Ladish's shareholders while Ladish and its board of directors have complied with the provisions of the merger agreement with respect to a withdrawal or modification of its recommendation that Ladish's shareholders adopt the merger agreement, Ladish is simultaneously entering into a definitive agreement to effect a superior proposal.

Ladish May Be Obligated to Pay ATI a Termination Fee (Page 59)

In certain circumstances involving a termination of the merger agreement, Ladish has agreed promptly to pay ATI a termination fee of \$31.0 million in cash. The merger agreement provides that all expenses incurred by ATI or Ladish in connection with the merger or the merger agreement will be borne by the party that has incurred such expenses.

Litigation Relating to the Merger (Page 47)

Following announcement of the merger on November 17, 2010, Ladish, its directors and ATI were named as defendants in lawsuits brought by and on behalf of Ladish shareholders in Wisconsin state court and in the United States District Court for the Eastern District of Wisconsin, each challenging ATI's acquisition of Ladish pursuant to the merger agreement. The respective plaintiffs generally allege that the consideration that Ladish shareholders will receive in connection with the merger is inadequate and that Ladish's directors breached their fiduciary duties to Ladish shareholders in negotiating and approving the merger agreement. Generally, the respective plaintiffs further allege that Ladish and ATI aided and abetted the alleged breaches by Ladish's directors. The complaints seek various forms of relief, including injunctive relief that would, if granted, prevent the merger from being consummated in accordance with the agreed-upon terms. Ladish and ATI believe that the claims stated in the complaints against them (and, in Ladish's case, also its directors) are all without merit and intend to defend the actions vigorously.

The Rights of Ladish Shareholders Following the Merger Will Be Different (Page 69)

ATI is a Delaware corporation, and Ladish is a Wisconsin corporation. As a result, the rights of ATI stockholders are governed by Delaware law, and the rights of Ladish shareholders are governed by Wisconsin law. The rights of ATI stockholders also are governed by ATI's restated certificate of incorporation, as amended, referred to as ATI's certificate of incorporation, and ATI's amended and restated bylaws, referred to as ATI's bylaws, whereas the rights of Ladish shareholders are governed by Ladish's restated articles of incorporation, referred to as Ladish's articles of incorporation, and Ladish's amended and restated by-laws, referred to as Ladish's bylaws. Ladish's articles of incorporation and bylaws differ from ATI's certificate of incorporation and ATI's by-laws in certain respects. Ladish shareholders should be aware of these differences when they vote at the special meeting because, upon completion of the merger, they will own shares of ATI common stock and therefore their rights will be governed by ATI's certificate of incorporation, ATI's bylaws and Delaware law.

Information About the Companies (Page 65)

Allegheny Technologies Incorporated

ATI is one of the largest and most diversified specialty metals producers in the world. ATI uses innovative technologies to offer growing global markets a wide range of specialty metals solutions. ATI's products include titanium and titanium alloys, nickel-based alloys and superalloys, zirconium, hafnium and niobium, advanced powder alloys, stainless and specialty steel alloys, grain-oriented electrical steel, tungsten-based materials and cutting tools, carbon alloy impression die forgings, and large grey and ductile iron castings. ATI's specialty metals are produced in a wide range of alloys and product forms and are selected for use in applications that demand metals having exceptional

hardness, toughness, strength, resistance to heat, corrosion or abrasion, or a combination of these characteristics. ATI's principal executive offices are located at 1000 Six PPG Place, Pittsburgh, Pennsylvania 15222-5479, and the telephone number of ATI's principal executive offices is (412) 394-2800.

LPAD Co.

LPAD is a newly formed Wisconsin corporation and a wholly owned subsidiary of ATI. LPAD was formed solely for the purpose of effecting the transactions contemplated by the merger agreement and has not carried on any

Table of Contents

activities other than in connection with the merger. The address and telephone number for LPAD's principal executive offices are the same as for ATI.

PADL LLC

PADL is a newly formed Wisconsin limited liability company and a wholly owned subsidiary of ATI. PADL was formed solely for the purpose of effecting the transactions contemplated by the merger agreement and has not carried on any activities other than in connection with the merger. The address and telephone number for PADL's principal executive offices are the same as for ATI.

Ladish Co., Inc.

Ladish engineers, produces and markets high-strength, high-technology forged and cast metal components for a wide variety of load-bearing and fatigue-resisting applications in the jet engine, aerospace and industrial markets. Approximately 88% of Ladish's 2009 revenues were derived from the sale of jet engine parts, missile components, landing gear, helicopter rotors and other aerospace products. Approximately 44% of Ladish's 2009 revenues were derived from sales, directly or through prime contractors, under U.S. government contracts or under contracts with allies of the U.S. government, primarily covering defense equipment. Ladish's principal executive offices are located at 5481 South Packard Avenue, Cudahy, Wisconsin 53110, and the telephone number of Ladish's principal executive offices is (414) 747-2611.

The Special Meeting (Page 20)

Ladish plans to hold its special meeting of shareholders on _____, 2011, at _____:00 a.m., local time, at _____. At the special meeting, Ladish shareholders will be asked to adopt the merger agreement providing for the merger of Ladish with and into LPAD, with Ladish continuing as the surviving entity and a wholly owned subsidiary of ATI. In addition, Ladish shareholders will be asked to approve adjournment of the special meeting, if necessary, to solicit additional proxies in the event that there are insufficient votes at the time of the special meeting to adopt the merger agreement.

Ladish shareholders can vote at the special meeting of shareholders if they owned Ladish common stock at the close of business on _____, 2011, the record date for the special meeting. As of that date, there were approximately _____ shares of Ladish common stock outstanding and entitled to vote. Ladish shareholders can cast one vote for each share of Ladish common stock that they owned on the record date.

Risk Factors (Page 12)

In evaluating the merger and the merger agreement, you should read carefully this proxy statement/ prospectus and especially consider the factors discussed in the section titled "Risk Factors" beginning on page 12.

Listing of Shares of ATI Common Stock Issued to Ladish Shareholders on the New York Stock Exchange (Page 47)

If the merger is completed, Ladish shareholders will be able to trade the shares of ATI common stock that they receive in the merger on the NYSE, subject to restrictions on affiliates of ATI described in the section entitled "The Merger Restrictions on Resales by Affiliates." If the merger is completed, it is expected that Ladish common stock will be delisted from and will no longer be traded on the Nasdaq Global Select Market.

Table of Contents**SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA OF ATI**

Set forth below is certain selected historical consolidated financial information relating to ATI. The selected financial information of ATI for each of the fiscal years ended December 31, 2009, 2008 and 2007 and as of December 31, 2009 and 2008 are derived from ATI's audited financial statements filed as part of ATI's Annual Report on Form 10-K for its fiscal year ended December 31, 2009, referred to as the ATI Form 10-K, which is incorporated by reference into this proxy statement/prospectus. The selected financial information of ATI for each of the fiscal years ended December 31, 2006 and 2005, and as of December 31, 2007 and 2006 have been derived from ATI's audited consolidated financial statements for such periods, which have not been incorporated into this proxy statement/prospectus by reference. The selected financial information of ATI as of and for the nine months ended September 30, 2010 and September 30, 2009 are derived from ATI's unaudited consolidated financial statements filed as part of ATI's Quarterly Report on Form 10-Q for its fiscal quarter ended September 30, 2010, referred to as the ATI Form 10-Q, which is incorporated by reference into this proxy statement/prospectus. This financial information should be read in conjunction with the financial statements and the related notes and other financial information contained in the ATI Form 10-K and the ATI Form 10-Q. More comprehensive financial information, including management's discussion and analysis of ATI's financial condition and results of operations, is contained in the ATI Form 10-K, the ATI Form 10-Q and other reports filed by ATI with the SEC. The following selected historical consolidated financial data is qualified in its entirety by reference to such other documents and all of the financial information and notes contained in those documents. See *Where You Can Find More Information* for the location of information incorporated by reference into this proxy statement/prospectus. The information set forth below is not necessarily indicative of the results of future operations of ATI.

		Year Ended December 31,				Nine Months Ended	
	2005	2006	2007	2008	2009	September 30, 2009	2010
	(Dollars in millions, except operating data)						(Unaudited)
Statement of income data:							
Sales:							
High Performance							
Metals	\$ 1,246.0	\$ 1,806.6	\$ 2,067.6	\$ 1,944.9	\$ 1,300.0	\$ 987.6	\$ 988.5
Flat-Rolled Products	1,900.5	2,697.3	2,951.9	2,909.1	1,516.1	1,077.6	1,751.1
Engineered Products	393.4	432.7	433.0	455.7	238.8	174.0	270.6
Total sales	3,539.9	4,936.6	5,452.5	5,309.7	3,054.9	2,239.2	3,010.2
Operating profit (loss):							
High Performance							
Metals	335.1	657.2	729.1	539.0	234.7	146.6	194.3
Flat-Rolled Products	159.0	356.1	512.0	385.0	71.3	41.3	61.7
Engineered Products	47.5	56.7	32.1	20.9	(23.8)	(24.1)	12.5
Total operating profit	541.6	1,070.0	1,273.2	944.9	282.2	163.8	268.5
Income before income taxes and cumulative	316.0	880.7	1,154.1	867.7	64.9	2.9	103.1

effect of change in
accounting principle

Net income (loss) attributable to ATI	362.4	574.1	747.1	565.9	31.7	(6.1)	55.6
--	-------	-------	-------	-------	------	-------	------

**Balance sheet data (at
end of period):**

Working capital	\$ 926.1	\$ 1,344.8	\$ 1,544.7	\$ 1,235.5	\$ 1,373.0	\$ 1,465.0	\$ 1,450.3
Total assets	2,729.9	3,280.5	4,095.6	4,170.4	4,346.0	4,380.0	4,489.7
Long-term debt	547.0	529.9	507.3	494.6	1,037.6	1,050.4	1,039.2
Total debt	560.4	553.6	528.2	509.8	1,071.1	1,070.6	1,061.1
Cash and cash equivalents	362.7	502.3	623.3	469.9	708.8	826.3	443.3
Stockholders' equity	828.3	1,540.4	2,279.2	2,029.0	2,089.6	2,153.5	2,132.7

**Cash flow
information:**

Cash flow provided by (used in) operating activities	\$ 224.2	\$ 303.3	\$ 701.5	\$ 754.5	\$ 218.5	\$ 149.4	\$ (63.9)
Cash flow used in investing activities	(110.4)	(235.8)	(451.7)	(513.9)	(453.7)	(302.6)	(132.4)
Cash flow provided by (used in) financing activities	(1.9)	72.1	(128.8)	(394.0)	474.1	509.6	(69.2)

Table of Contents

	Year Ended December 31,					Nine Months Ended	
	2005	2006	2007	2008	2009	September 30, 2009	2010
	(Dollars in millions, except operating data)					(Unaudited)	
Operating data:							
Volume (000 s lbs.):							
High Performance							
Metals:							
Titanium mill							
products	24,882	27,361	30,689	32,530	23,588	18,386	19,750
Nickel-based and							
specialty alloys	39,939	42,873	44,688	42,525	32,562	24,652	26,819
Exotic alloys	4,018	4,304	5,169	5,473	5,067	3,674	3,305
Flat-Rolled Products:							
High value	495,868	502,524	491,891	500,375	367,195	268,720	337,212
Standard	652,870	889,105	557,016	584,389	474,950	346,696	500,683
Flat-Rolled Products							
total	1,148,738	1,391,629	1,048,907	1,084,764	842,145	615,416	837,895
Average Prices (per							
lb.):							
High Performance							
Metals:							
Titanium mill							
products	\$ 22.75	\$ 33.83	\$ 30.14	\$ 25.60	\$ 20.92	\$ 21.38	\$ 19.00
Nickel-based and							
specialty alloys	11.25	14.35	19.16	18.14	14.43	14.21	13.96
Exotic alloys	40.38	40.39	41.85	48.53	57.79	58.85	59.78
Flat-Rolled Products:							
High value	2.15	2.50	3.22	3.26	2.49	2.46	2.80
Standard	1.26	1.61	2.40	2.13	1.22	1.14	1.59
Flat-Rolled Products							
combined average	1.64	1.93	2.79	2.65	1.77	1.71	2.08

9

Table of Contents**SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA OF LADISH**

Set forth below is certain selected historical consolidated financial information relating to Ladish. The selected financial information of Ladish for each of the fiscal years ended December 31, 2009, 2008 and 2007 and as of December 31, 2009 and 2008 are derived from Ladish's audited financial statements filed as part of Ladish's Annual Report on Form 10-K for its fiscal year ended December 31, 2009, referred to as the Ladish Form 10-K, which is incorporated by reference into this proxy statement/prospectus. The selected financial information of Ladish for each of the fiscal years ended December 31, 2006 and 2005, and as of December 31, 2007 and 2006 have been derived from Ladish's audited consolidated financial statements for such periods, which have not been incorporated into this proxy statement/prospectus by reference. The selected financial information of Ladish as of and for the nine months ended September 30, 2010 and September 30, 2009 are derived from Ladish's unaudited consolidated financial statements filed as part of Ladish's Quarterly Report on Form 10-Q for its fiscal quarter ended September 30, 2010, referred to as the Ladish Form 10-Q, which is incorporated by reference into this proxy statement/prospectus. This financial information should be read in conjunction with the financial statements and the related notes and other financial information contained in the Ladish Form 10-K and the Ladish Form 10-Q. More comprehensive financial information, including management's discussion and analysis of Ladish's financial condition and results of operations, is contained in the Ladish Form 10-K, the Ladish Form 10-Q and other reports filed by Ladish with the SEC. The following selected historical consolidated financial data is qualified in its entirety by reference to such other documents and all of the financial information and notes contained in those documents. See *Where You Can Find More Information* for the location of information incorporated by reference into this proxy statement/prospectus. The information set forth below is not necessarily indicative of the results of future operations of Ladish.

	Year Ended December 31,					Nine Months Ended September 30,	
	2009	2008	2007	2006	2005	2010	2009
	(In thousands, except per share data)					(Unaudited)	
Income Statement							
Revenue:							
Net Sales	\$ 349,832	\$ 469,466	\$ 424,631	\$ 369,290	\$ 266,841	\$ 298,635	\$ 266,611
Income from operations	9,248	39,538	52,319	48,960	23,847	33,862	4,371
Interest expense	5,050	1,971	2,528	3,548	2,072	4,257	3,591
Net income (loss)	6,094	32,205	32,288	28,481	13,715	19,126	(411)
Basic earnings (loss) per share	0.38	2.15	2.22	2.01	1.00	1.21	(0.01)
Diluted earnings (loss) per share	0.38	2.15	2.22	2.00	0.98	1.21	(0.01)
Dividends paid							
Shares used to compute earnings per share:							
Basic	15,901,833	14,998,437	14,516,120	14,136,946	13,781,586	15,754,554	15,901,433
Diluted	15,902,246	15,000,844	14,550,258	14,205,641	13,931,539	15,755,826	15,901,433

Balance Sheet

ta:

total assets	\$	469,514	\$	509,466	\$	381,833	\$	329,060	\$	296,556	\$	490,426	\$	463,77
total working capital		137,515		138,910		130,855		123,764		71,116		141,171		133,65
total debt		90,000		118,900		53,500		54,100		45,000		84,285		90,00
stockholders' equity		225,582		223,411		201,554		152,670		117,469		241,082		224,93

Table of Contents**MARKET PRICE AND DIVIDEND INFORMATION**

ATI common stock is listed on the NYSE and traded under the symbol ATI, and Ladish common stock is listed on the Nasdaq Global Select Market and traded under the symbol LDSH. The following table shows the high and low reported sales prices per share of, and dividends declared with respect to, ATI and Ladish common stock for the periods indicated.

	High	ATI Low	Dividend	High	Ladish Low	Dividend
Year Ending December 31, 2010:						
Fourth Quarter (through December 23, 2010)	\$ 59.41	\$ 45.19	\$ 0.18	\$ 50.69	\$ 28.64	
Third Quarter	53.41	39.35	0.18	32.37	21.64	
Second Quarter	58.25	44.01	0.18	29.28	20.16	
First Quarter	56.23	39.00	0.18	21.74	14.91	
Year Ended December 31, 2009:						
Fourth Quarter	\$ 46.31	\$ 29.62	\$ 0.18	\$ 16.43	\$ 11.72	
Third Quarter	36.95	25.80	0.18	16.90	10.05	
Second Quarter	44.09	21.22	0.18	15.19	6.95	
First Quarter	31.83	16.92	0.18	15.47	5.21	
Year Ended December 31, 2008:						
Fourth Quarter	\$ 29.74	\$ 15.00	\$ 0.18	\$ 20.48	\$ 10.85	
Third Quarter	58.85	26.60	0.18	28.05	18.07	
Second Quarter	85.49	58.40	0.18	38.30	20.55	
First Quarter	87.32	59.00	0.18	43.44	32.16	

Past price performance is not necessarily indicative of likely future performance. Because market prices of ATI and Ladish common stock will fluctuate, you are urged to obtain current market prices for shares of ATI and Ladish common stock.

The last reported sale price of ATI's common stock on the NYSE on , 2011 was \$ per share. As of , 2011, there were shares of ATI's common stock outstanding held by approximately registered holders.

The payment of dividends by ATI, if any, and the amount of such dividends depends upon matters deemed relevant by ATI's board of directors on a quarterly basis, such as its results of operations, financial condition, cash requirements, future prospects, any limitations imposed by law, credit agreements or debt securities and other factors deemed relevant and appropriate. While ATI has historically paid cash dividends on its common stock on a quarterly basis, no assurance can be given that it will continue to pay dividends on its common stock in a manner and amount consistent with its historical practices, or at all, in the future.

Ladish has not paid cash dividends and currently intends to retain all of its earnings. Ladish does not expect to pay dividends for the foreseeable future. Ladish has agreed in the merger agreement that, through the effective time of the merger, it will not declare, set aside for payment or pay any dividend on, or otherwise make any payments to its shareholders in their capacity as such.

Table of Contents

RISK FACTORS

In addition to the risks described in Part I, Item 1A in each of the ATI Form 10-K and the Ladish Form 10-K and the risks described in the other information contained in or incorporated by reference into this proxy statement/prospectus, including the matters addressed under the heading "Cautionary Note Regarding Forward-Looking Statements," you should carefully consider the following risk factors in deciding how to vote.

Because the market value of the ATI common stock that Ladish shareholders will receive in the merger may fluctuate, Ladish shareholders cannot be sure of the market value of the ATI common stock to be issued upon completion of the merger.

At the effective time and as a result of the merger, each outstanding share of Ladish common stock will be converted into the right to receive 0.4556 of a share of ATI common stock and \$24.00 in cash. The number of shares of ATI common stock that Ladish shareholders will be entitled to receive in the merger will not be adjusted in the event of any increase or decrease in the share price of either ATI common stock or Ladish common stock. The market value of the shares of ATI common stock that Ladish shareholders will be entitled to receive when the merger is completed will depend on the market value of shares of ATI common stock at that time and could vary significantly from the market value of shares of ATI common stock on the date the merger agreement was executed, the date of this proxy statement/prospectus or the date of the special meeting.

Stock price changes may result from a variety of factors, including general market and economic conditions, changes in ATI's and Ladish's businesses, operations and prospects, regulatory considerations and market reaction to the merger and related developments. Many of these factors are beyond either party's control. As a result, the value represented by the merger consideration also will vary. For example, based on the range of closing prices of ATI common stock during the period from November 16, 2010, the last trading day completed before ATI and Ladish announced the execution of the merger agreement, through _____, 2011, the merger consideration represented a value ranging from a high of approximately \$ _____ to a low of approximately \$ _____ for each share of Ladish common stock. Because the merger is not expected to be consummated until the first quarter of 2011 and could be further delayed, at the time of the special meeting you will not know the market value of ATI common stock that Ladish shareholders will receive upon completion of the merger, and the market value of ATI common stock may continue to fluctuate following the merger. ATI and Ladish recommend that you obtain current market quotations for ATI common stock and Ladish common stock before voting at the special meeting. See the section entitled "Market Price and Dividend Information."

Combining the businesses of ATI and Ladish may be more difficult, costly or time-consuming than expected, which may adversely affect ATI's results and affect adversely the value of ATI's stock following the merger.

ATI and Ladish have entered into the merger agreement because they believe that the merger will be beneficial to the respective companies and their respective security holders. The success of the merger will depend, in part, on ATI's ability to realize the anticipated benefits from combining the businesses of ATI and Ladish. To realize these anticipated benefits, ATI must successfully combine the businesses of ATI and Ladish in an efficient and effective manner. If ATI and Ladish are not able to achieve these objectives within the anticipated time frame, or at all, the anticipated benefits and cost savings of the merger may not be realized fully, or at all, or may take longer to realize than expected, and the value of ATI's common stock may be affected adversely.

ATI and Ladish have operated and, until the completion of the merger, will continue to operate, independently. It is possible that the integration process could result in the loss of key employees, the disruption of each company's ongoing business or inconsistencies in standards, controls, procedures and policies that adversely affect ATI's ability to

maintain relationships with customers, employees, suppliers and other business partners following the merger or to achieve the anticipated benefits of the merger.

Specifically, issues that must be addressed in integrating the operations of Ladish into ATI's operations in order to realize the anticipated benefits of the merger include, among other things:

integrating and optimizing the utilization of the properties and equipment of ATI and Ladish;

Table of Contents

integrating the sales and information technology systems of ATI and Ladish; and

conforming standards, controls, procedures and policies, business cultures and compensation structures between the companies.

Integration efforts between the two companies will also divert management attention and resources. An inability to realize the full extent of the anticipated benefits of the merger, as well as any delays encountered in the integration process, could have an adverse effect upon the revenues, level of expenses and operating results of ATI, which may affect adversely the value of the ATI common stock after the completion of the merger.

In addition, the actual integration may result in additional and unforeseen expenses, and the anticipated benefits of the integration plan may not be realized. Actual synergies, if achieved at all, may be lower than what ATI expects and may take longer to achieve than anticipated. If ATI is not able to adequately address these challenges, ATI may be unable to successfully integrate Ladish's operations into its own, or to realize the anticipated benefits of the integration of the two companies.

ATI and Ladish may be unable to obtain in the anticipated timeframe, or at all, the regulatory approvals required to complete the merger, or, in order to do so, ATI and Ladish may be required to comply with material restrictions or conditions.

Completion of the merger is conditioned upon, among other things, the receipt of certain governmental approvals, including the expiration or termination of the applicable waiting periods under the HSR Act and any other applicable antitrust laws. On December 1, 2010, ATI and Ladish filed the requisite notification and report forms under the HSR Act with the FTC and the Antitrust Division of the DOJ. The merger can be completed only after expiration or termination of the applicable waiting periods required under the HSR Act and any other applicable antitrust law. ATI and Ladish have agreed to use their respective reasonable best efforts to take, or cause to be taken, all actions, and to do, or cause to be done, and to assist and cooperate with each other in doing, all things necessary, proper or advisable to obtain all approvals, consents, registrations, permits, authorizations and other confirmations from any governmental authority or third party necessary, proper or advisable to consummate the merger. ATI and Ladish are working to obtain the required regulatory approvals and consents. It is possible that one or more required regulatory approvals may not be received, may be received later than expected or may contain conditions that adversely affect ATI's and Ladish's ability to obtain the anticipated benefits of the merger. If ATI becomes subject to any material conditions in order to obtain any approvals required to complete the merger, the business and results of operations of the combined company could be adversely affected.

Ladish may not terminate the merger agreement to accept a superior proposal to acquire Ladish after the Ladish shareholders have adopted the merger agreement and, in certain circumstances, may be required to pay a termination fee to ATI.

In the merger agreement, Ladish has agreed not to, and to cause its subsidiaries and representatives not to, directly or indirectly, solicit, initiate, cause, facilitate or encourage (including by way of furnishing information) any inquiries or proposals from any third party that constitute, or may reasonably be expected to lead to, a takeover proposal to acquire Ladish or its businesses. In addition, Ladish has agreed not to participate in discussions or negotiations with any third party regarding such a takeover proposal, accept such a takeover proposal or enter into any agreement related to such a takeover proposal or enter into any agreement that would require Ladish to abandon the merger or terminate the merger agreement. However, if Ladish (i) receives an unsolicited, bona fide written acquisition proposal from a third party prior to the adoption of the merger agreement by Ladish's shareholders in circumstances not involving a breach of the merger agreement and (ii) provides ATI with not less than 24 hours written notice of its intention to take such

action, Ladish may participate in discussions and negotiations with and furnish confidential information to the third party provided that, among other requirements, the Ladish board of directors reasonably determines in good faith (after receiving the advice of a financial advisor of nationally recognized reputation) that the takeover proposal is a superior proposal and (after considering applicable provisions of state law and after consulting with and receiving the advice of outside counsel) that the failure to take such action is reasonably likely to constitute a breach by the Ladish board of directors of its fiduciary duties to Ladish shareholders under applicable law. After the adoption of the merger agreement by Ladish's shareholders, Ladish

Table of Contents

may not participate in discussions or negotiations with or provide confidential information to a third party, and Ladish may not terminate the merger agreement to accept a superior proposal. In addition, under specified circumstances, Ladish is required to pay a termination fee of \$31.0 million to ATI. See The Merger Agreement No Solicitation by Ladish.

These provisions might discourage a potential competing acquiror that might have an interest in acquiring all or a significant part of Ladish from considering or proposing an acquisition even if it were prepared to pay consideration with a higher value than the consideration offered in connection with the merger, or might result in a potential competing acquiror proposing to pay a less valuable per share consideration to acquire Ladish than it might otherwise have proposed to pay.

Any delay in completing the merger may substantially reduce the benefits that ATI expects to be obtained from the merger.

In addition to obtaining the required governmental clearances and approvals, the merger is subject to a number of other conditions beyond the control of ATI and Ladish that may prevent, delay or otherwise materially adversely affect its completion. See The Merger Agreement Conditions to Completion of the Merger. ATI and Ladish cannot predict whether or when the conditions required to complete the merger will be satisfied. The requirements for obtaining the required clearances and approvals could delay the effective time of the merger for a significant period of time or prevent it from occurring. Moreover, each of ATI and Ladish may terminate the merger agreement if the merger is not consummated by June 30, 2011. Any delay in completing the merger may materially adversely affect the synergies and other benefits that ATI expects to achieve if the merger and the integration of the companies respective businesses are completed within the expected timeframe.

Ladish will be subject to business uncertainties and contractual restrictions while the merger is pending.

Uncertainty about the effect of the merger on customers, suppliers and other business partners may have an adverse effect on Ladish and consequently on ATI following the merger. These uncertainties could cause customers, suppliers, business partners and others that deal with Ladish to defer entering into contracts with Ladish or making other decisions concerning Ladish or seek to change existing business relationships with Ladish. In addition, except as expressly permitted by the merger agreement or as required by applicable law, subject to certain exceptions, until the effective time of the merger, the merger agreement restricts Ladish's ability to take certain action and engage in certain transactions, as described under The Merger Agreement Conduct of Business Pending the Merger.

Uncertainties associated with the merger may cause a loss of employees and may otherwise affect the future business and operations of ATI and Ladish.

ATI's success after the merger will depend in part upon its ability to retain key employees of ATI and Ladish. Prior to the merger, employees of ATI or Ladish may experience uncertainty about their roles with ATI following the merger. Employees of Ladish whom are retained by ATI following the merger may also experience similar uncertainty after the completion of the merger. This may adversely affect the ability of each of ATI and Ladish to attract or retain key management, sales, technical and other personnel. In addition, Ladish's executive officers are not subject to any non-compete agreement. Key employees may depart because of issues relating to the uncertainty and difficulty of integration or a desire not to remain with ATI following the merger. As a result, ATI may not be able to attract or retain key employees of ATI and Ladish following the merger to the same extent that ATI and Ladish have been able to attract or retain their own employees in the past, which could have a negative impact on the business of ATI following the merger. If key employees depart, the integration of the companies may be more difficult, and ATI's business following the merger could be materially harmed.

Some of Ladish's officers and directors have interests in the merger that are different from, and in addition to, your interests.

Some of the directors of Ladish who recommend that you vote in favor of the proposals to be considered at the special meeting of Ladish shareholders, and the officers of Ladish who provided information to Ladish's board of directors relating to the merger and the other transactions contemplated by the merger agreement, have rights to

Table of Contents

acceleration of the vesting of certain equity-based awards, may participate in a retention pool to be established by ATI and have rights to ongoing indemnification and insurance that provide them with interests in the transaction that may differ from, or be in addition to, yours. The receipt of compensation or other benefits in the transaction might result in these directors and officers being more likely to support and vote to adopt the merger agreement than if they did not have these interests. Ladish shareholders should consider whether their interests and benefits may have influenced these directors and officers to support or recommend adoption of the merger agreement. See the section entitled "The Merger – Interests of Certain Persons in the Merger" for a further description of these interests, including the aggregate cash payments that each director and executive officer of Ladish is entitled to receive in connection with the completion of the merger.

The market price of ATI common stock after the merger may be affected by factors different from those affecting Ladish common stock currently.

The businesses of ATI and Ladish differ in many respects including product offerings and relationships with customers and suppliers, and, accordingly, the results of operations of ATI following the merger and the market price of shares of ATI's common stock after the merger may be affected by factors different from those currently affecting the independent results of operations of Ladish. For a discussion of the businesses of ATI and Ladish and of certain factors to consider in connection with their respective businesses, see the documents incorporated by reference into this proxy statement/prospectus and referred to under "Where You Can Find More Information." See the section entitled "Market Price and Dividend Information" for additional information on the historical market value of shares of ATI common stock and Ladish common stock.

ATI will incur significant transaction and merger-related costs in connection with the merger.

ATI expects to incur non-recurring costs associated with combining the operations of the two companies. Most of these costs will be comprised of transaction costs related to the merger, facilities and systems consolidation costs and employment-related costs. ATI will also incur transaction fees and costs related to formulating integration plans. Additional unanticipated costs may be incurred in the integration of the two companies' businesses. Although ATI expects that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the businesses, should allow ATI to offset incremental transaction and merger-related costs over time, this net benefit may not be achieved in the near term, or at all.

The merger may not be accretive and may cause dilution to ATI's earnings per share, which may negatively affect the market price of ATI common stock.

ATI currently anticipates that the merger will be accretive to its earnings per share (on an adjusted earnings basis) within 18 to 24 months after the merger. This expectation is based on preliminary estimates, which may change materially. ATI could also encounter additional transaction-related costs or other factors such as the failure to realize all of the benefits anticipated in the merger. All of these factors could cause dilution to ATI's earnings per share or decrease or delay the expected accretive effect of the merger and cause a decrease in the market price of ATI common stock.

The stock prices and businesses of ATI and Ladish may be adversely affected if the merger is not completed.

Completion of the merger is subject to certain closing conditions, including, among others, obtaining requisite regulatory approvals and the approval of Ladish's shareholders. ATI and Ladish may be unable to obtain such approvals on a timely basis or at all. If the merger is not completed, the prices of ATI common stock and Ladish common stock may decline to the extent that the current market prices of ATI common stock and Ladish common stock reflect a market assumption that the merger will be completed.

If the merger is not completed, the respective ongoing businesses of ATI and Ladish may be adversely affected and ATI and Ladish will be subject to several risks and consequences, including the following:

Ladish may be required, under certain circumstances, to pay ATI a termination fee of \$31.0 million under the merger agreement;

Table of Contents

ATI and Ladish will be required to pay certain costs incurred by each of them relating to the merger, whether or not the merger is completed, such as fees and expenses of their respective advisors, litigation related expenses and printing fees;

under the merger agreement, Ladish is subject to certain restrictions on the conduct of its business prior to completing the merger which may adversely affect its ability to execute certain of its business strategies; and

matters relating to the merger may require substantial commitments of time and resources by ATI and Ladish management, which could otherwise have been devoted to other opportunities that may have been beneficial to ATI and Ladish as independent companies, as the case may be.

In addition, there may be uncertainty surrounding the future direction of the businesses and strategy of ATI or Ladish on a standalone basis, and ATI or Ladish may experience negative reactions from the financial markets and from their respective employees, customers, suppliers and other business partners. ATI and Ladish are subject to litigation related to the merger and could be subject to additional litigation related to any failure to complete the merger, or to enforcement proceedings commenced against ATI or Ladish to perform their respective obligations under the merger agreement. If the merger is not completed, ATI and Ladish cannot assure their respective securityholders that the risks described above will not materialize and will not materially affect the business, financial results and stock prices of ATI or Ladish.

Certain existing indebtedness of Ladish, if not refinanced, amended or repaid, may decrease ATI's financial or business flexibility, reduce its ability to incur additional indebtedness, affect its existing debt covenants, increase its borrowing costs or result in repayment or collateralization obligations.

Certain of Ladish's existing indebtedness is expected to be outstanding upon completion of the merger. The agreements governing Ladish's indebtedness differ from those governing ATI's indebtedness and in certain respects could require waivers, amendments or refinancing of the Ladish indebtedness. Although ATI and Ladish will try to resolve any such conflicts prior to closing, there can be no assurance that such conflicts will be resolved by that time or at the anticipated cost or that any refinancing may be obtained at favorable terms. In addition, the failure to effect any such refinancing, if required, on favorable terms may, among other things, have the effect of reducing ATI's liquidity or operational flexibility and have a material adverse effect on ATI following the merger, including its ability to obtain further financing, take advantage of certain growth opportunities and respond to comparatively better financed competitors.

Ladish shareholders will have a significantly reduced ownership and voting interest after the merger and will exercise less influence over the management and policies of ATI than they do over Ladish.

Ladish shareholders currently have the right to vote in the election of the board of directors of Ladish and on other matters affecting Ladish. When the merger occurs, each Ladish shareholder that receives shares of ATI common stock will become a stockholder of ATI with a percentage ownership of ATI that is much smaller than the shareholder's percentage ownership of Ladish. It is expected that the former shareholders of Ladish as a group will own approximately % of the outstanding shares of ATI immediately after the merger. Because of this, Ladish shareholders will have less influence over the management and policies of ATI than they now have over the management and policies of Ladish.

The shares of ATI common stock to be received by Ladish shareholders as a result of the merger will have different rights from the shares of Ladish common stock.

Upon completion of the merger, Ladish shareholders will become ATI stockholders and their rights as stockholders will be governed by ATI's certificate of incorporation, ATI's bylaws and Delaware law. Certain of the rights associated with Ladish common stock are different from the rights associated with ATI common stock. See the section entitled **Comparison of Rights of Ladish Shareholders and ATI Stockholders** for a discussion of the different rights associated with ATI common stock.

Table of Contents

Lawsuits have been filed against Ladish, the members of the Ladish board of directors and ATI challenging the merger, and an adverse judgment in any lawsuit challenging the merger may prevent the merger from being completed within the expected timeframe, or at all.

Following announcement of the merger on November 17, 2010, Ladish, its directors and ATI were named as defendants in lawsuits brought by and on behalf of Ladish shareholders in Wisconsin state court and in the United States District Court for the Eastern District of Wisconsin, each challenging ATI's acquisition of Ladish pursuant to the merger agreement. The respective plaintiffs generally allege that the consideration that Ladish shareholders will receive in connection with the merger is inadequate and that Ladish's directors breached their fiduciary duties to Ladish shareholders in negotiating and approving the merger agreement. Generally, the respective plaintiffs further allege that Ladish and ATI aided and abetted the alleged breaches by Ladish's directors. The complaints seek various forms of relief, including injunctive relief that would, if granted, prevent the merger from being consummated in accordance with the agreed-upon terms. Ladish and ATI believe that the claims stated in the complaints against them (and, in Ladish's case, also its directors) are all without merit and intend to defend the actions vigorously. See "The Merger" Litigation Relating to the Merger.

One of the conditions to the closing of the merger is the absence of any law, injunction, judgment or ruling by any governmental authority enjoining, restraining, preventing or prohibiting the consummation of the merger or making the merger illegal. As such, if the plaintiffs are successful in obtaining an injunction prohibiting Ladish or ATI from consummating the merger on the agreed-upon terms, then such injunction may prevent the merger from being completed within the expected timeframe, or at all.

ATI may pursue other strategic transactions in the future, which could be difficult to implement, disrupt its business or change its business profile significantly.

ATI will continue to consider opportunistic strategic transactions, which could involve acquisitions or dispositions of businesses or assets. Any future strategic transaction could involve numerous risks, including:

potential disruption of ATI's ongoing business and distraction of management;

difficulty integrating acquired businesses or segregating assets to be disposed of;

exposure to unknown and/or contingent or other liabilities, including litigation arising in connection with the acquisition, disposition and/or against any businesses ATI may acquire; and

changing ATI's business profile in ways that could have unintended consequences.

If ATI enters into significant strategic transactions in the future, related accounting charges may affect its financial condition and results of operations, particularly in the case of any acquisitions. In addition, the financing of any significant acquisition may result in changes in its capital structure, including the incurrence of additional indebtedness. Conversely, any material disposition could reduce its indebtedness or require the amendment or refinancing of a portion of its outstanding indebtedness. ATI may not be successful in addressing these risks or any other problems encountered in connection with any strategic transactions.

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus, and the documents incorporated herein by reference, include certain forward-looking information about ATI, Ladish and the combined company after completion of the merger that is intended to be covered by the safe harbor for forward-looking statements provided by the U.S. Private Securities Litigation Reform Act of 1995. You should not place undue reliance on these statements. Representatives of ATI and Ladish may also make forward-looking statements. Forward-looking statements include information concerning ATI's and Ladish's possible or assumed future results of operations, including descriptions of ATI's and Ladish's business strategies. These statements often include words such as believe, expect, project, anticipate, intend, plan, estimate, seek, would, should, could, can, feel, forecasts, to be or similar expressions. These statements are based on ATI's and Ladish's expectations and beliefs at the time such statements were made; however, any such statement may be influenced by factors that could cause actual outcomes and results to be materially different from those projected or anticipated. As you read and consider this proxy statement/prospectus, you should understand that these statements are not guarantees of performance or results. These forward-looking statements are subject to numerous risks and uncertainties, including the risks described in this proxy statement/prospectus under Risk Factors, that could cause actual results to differ.

Some other risks and uncertainties include, but are not limited to:

the risk that the respective businesses of ATI and Ladish will not be integrated successfully or such integration may be more difficult, time-consuming or costly than expected;

the risk that expected synergies, operational efficiencies and cost savings from the merger may not be fully realized or realized within the expected time frame;

the risk that ATI's revenues following the merger may be lower than expected;

the inability to obtain governmental approvals of the merger on the proposed terms and schedule;

the operational and profitability impact of divestitures that may be required to be undertaken to secure regulatory approval;

the risk of changes in applicable tax or other laws;

the failure of Ladish shareholders to adopt the merger agreement;

adverse response by Ladish's and ATI's employees, customers, suppliers or other business partners;

other risks to consummation of the merger;

significant changes in the business environment, including as a result of industry consolidation, and the effect of competition in ATI's and Ladish's markets;

unanticipated regulatory or judicial proceedings or rulings;

potential or actual litigation;

the risk that assumptions and estimates used in applying critical accounting policies prove unreliable, inaccurate or not predictive of actual results;

the risk that the design of either company's disclosure controls and procedures or internal controls prove inadequate, or are circumvented, thereby causing losses or errors in information or a delay in the detection of fraud; and

the impact on ATI's or Ladish's respective businesses, as well as on the risks set forth above, of various domestic or international military or terrorist activities or conflicts.

For additional information about factors that could cause actual results to differ materially from those described in the forward-looking statements, please see the factors described under the headings "Forward-Looking Statements" in the ATI Form 10-K, "Forward-Looking and Other Statements" in the ATI Form 10-Q and "Forward Looking Statements" in the Ladish Form 10-K and in Part I, Item 3, Quantitative and Qualitative Disclosures About

Table of Contents

Market Risk, in the Ladish Form 10-Q. See [Where You Can Find More Information](#) for the location of information incorporated by reference into this proxy statement/prospectus.

Because these forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by these forward-looking statements, and the factors that will determine these results are beyond ATI's or Ladish's ability to control or predict.

ATI and Ladish caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this proxy statement/prospectus, in the case of forward-looking statements contained in this proxy statement/prospectus, or the dates of the documents incorporated by reference in this proxy statement/prospectus, in the case of forward-looking statements made in those incorporated documents.

Except to the extent required by applicable law or regulation, ATI and Ladish undertake no obligation to update these forward-looking statements to reflect events or circumstances after the date of this proxy statement/prospectus or to reflect the occurrence of unanticipated events.

All subsequent written or oral forward-looking statements concerning the merger or other matters addressed in this proxy statement/prospectus and attributable to ATI or Ladish or any person acting on their behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

Neither ATI's nor Ladish's independent registered public accounting firms have compiled, examined or otherwise applied procedures to the prospective financial information presented herein and, accordingly, do not express an opinion or any other form of assurance on such information or its achievability.

Table of Contents

THE SPECIAL MEETING

Overview

This proxy statement/prospectus is being provided to Ladish shareholders as part of a solicitation of proxies by the Ladish board of directors for use at the special meeting of Ladish shareholders and at any adjournments or postponements thereof. This proxy statement/prospectus is first being furnished to shareholders of Ladish on or about , 2011. In addition, this proxy statement/prospectus constitutes a prospectus of ATI in connection with the issuance by ATI of its common stock in connection with the merger. This proxy statement/prospectus provides Ladish shareholders with information they need to know to be able to vote or instruct their vote to be cast at the special meeting of Ladish shareholders.

&nb