UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-8 **REGISTRATION STATEMENT**

UNDER THE SECURITIES ACT OF 1933

KENNAMETAL INC.

(Exact name of registrant as specified in its charter)

Pennsylvania (State or other jurisdiction of incorporation or organization)

600 Grant Street **Suite 5100** Pittsburgh, Pennsylvania (Address of Principal Executive Offices)

> KENNAMETAL INC. 2016 STOCK AND INCENTIVE PLAN (Full title of the plan)

Michelle R. Keating, Esq. Vice President, Secretary and Interim General Counsel Kennametal Inc. 600 Grant Street, Suite 5100 Pittsburgh, Pennsylvania 15219-2706 (Name and Address of agent for service)

(412) 248-8000 (Telephone Number, including area code, of agent for service)

Copy to:

Jeffrey G. Aromatorio, Esq. Reed Smith LLP 225 Fifth Avenue Pittsburgh, Pennsylvania 15222-2716 Telephone: (412) 288-3364

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 \times

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

CALCULATION OF REGISTRATION FEE

| | | Proposed | Proposed | |
|---|----------------------------------|--|--|--|
| | Amount | Maximum | Maximum | |
| Title of Securities to be Registered | to be Registered ¹ | Offering Price Per Share ² | Aggregate Offering Price ² | Amount of Registration Fee ³ |
| Capital Stock, par value \$1.25 per share | 3,500,000 | \$28.48 | \$99,680,000 | \$11,552.91 |

If, as a result of stock splits, stock dividends or similar transactions, the number of securities purported to be registered by this Registration Statement (1)changes, the provisions of Rule 416 under the Securities Act of 1933, as amended, shall apply to this Registration Statement, and this Registration Statement shall be deemed to cover the additional securities resulting from the split of, or the dividend on, the securities covered by this Registration Statement. The 3,500,000 shares of Capital Stock to be registered are in addition to 9,500,000 shares of Capital Stock previously registered in connection with the Plan (previously named Kennametal Inc. Stock and Incentive Plan of 2010) on registration statements on Form S-8 filed with the Securities and Exchange Commission on November 4, 2010 (Registration No. 333-170348) and February 6, 2014 (Registration No. 333-193782). Estimated solely for purposes of calculating the registration fee pursuant to Rules 457(c) and 457(h). In accordance with Rule 457(h), such price is the (2)

25-0900168 (I.R.S. Employer Identification No.)

15219-2706 (Zip Code)

Accelerated filer

Smaller reporting company

average of the high and low sale prices for the Capital Stock as quoted on the New York Stock Exchange on November 4, 2016.(3) Calculated pursuant to Section 6(b) of the Securities Act of 1933, as amended.

PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The document(s) containing the information specified in Part I are not required to be filed with the Securities and Exchange Commission (the "Commission") as part of this Form S-8 Registration Statement in accordance with Rule 428 of the Securities Act of 1933, as amended (the "1933 Act"). The documents containing information specified in the instructions to Part I of Form S-8 will be sent or given to employees participating in the 2016 Stock and Incentive Plan as specified by Rule 428(b)(1) of the 1933 Act. Those documents and the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the 1933 Act.

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the registrant Kennametal Inc. (the "Corporation") with the Commission are incorporated by reference in this Registration Statement:

(a) The registrant's latest annual report on Form 10-K filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the "1934 Act");

(b) All other reports filed by the registrant pursuant to Section 13(a) or 15(d) of the 1934 Act since the end of the fiscal year covered by the annual report on Form 10-K referred to in paragraph (a) above; and

(c) The description of the registrant's Capital Stock set forth in the registrant's filed registration statement under Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the 1934 Act (other than portions of those documents furnished or otherwise not deemed to be filed), prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any other contemporaneously or subsequently filed document which also is or is deemed to be incorporated by reference in this Registration Statement modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

1. *Pennsylvania Business Corporation Law*. Sections 1741 and 1742 of the Pennsylvania Business Corporation Law (the "BCL") provide that a business corporation shall have the power to indemnify any person who was or is a party, or is threatened to be made a party, to any proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such proceeding, if such person acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal proceeding, had no reasonable cause to believe his conduct was unlawful. In the case of an action by or in the right of the corporation, such indemnification is limited to expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action, except that no indemnification shall be made

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in respect of any claim, issue or matter as to which such person has been adjudged to be liable to the corporation unless, and only to the extent that, a court determines upon application that, despite the adjudication of liability but in view of all the circumstances, such person is fairly and reasonably entitled to indemnity for the expenses that the court deems proper.

BCL Section 1744 provides that, unless ordered by a court, any indemnification referred to above shall be made by the corporation only as authorized in the specific case upon a determination that indemnification is proper in the circumstances because the indemnitee has met the applicable standard of conduct. Such determination shall be made:

(1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to the proceeding; or

(2) if such a quorum is not obtainable, or if obtainable and a majority vote of a quorum of disinterested directors so directs, by independent legal counsel in a written opinion; or

(3) by the shareholders.

Notwithstanding the above, BCL Section 1743 provides that to the extent that a director, officer, employee or agent of a business corporation is successful on the merits or otherwise in defense of any proceeding referred to above, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

BCL Section 1745 provides that expenses (including attorneys' fees) incurred by an officer, director, employee or agent of a business corporation in defending any proceeding may be paid by the corporation in advance of the final disposition of the proceeding upon receipt of an undertaking to repay the amount advanced if it is ultimately determined that the indemnitee is not entitled to be indemnified by the corporation.

2. Indemnification Bylaws. Kennametal's Bylaws provide that it is obligated to indemnify directors, officers and other persons serving at the request of Kennametal in certain other capacities, against all reasonable expenses (including attorneys' fees) and any liability and loss, including judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement incurred or paid by such person in connection with any action, suit or proceeding, whether civil, criminal, administrative or investigative and whether or not by or in the right of the Corporation or otherwise, by reason of the fact that such person was an officer or director of Kennametal or served in certain other capacities. The Bylaws provide that no indemnification shall be made where the act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted willful misconduct or recklessness or where the proceeding has been initiated by the person seeking indemnification and was not pre-authorized by the Board of Directors (except in the case where the person successfully, in whole or in part, brings suit against the Corporation to enforce such person's right to indemnification). The Bylaws provide that to the extent required by law, the payment of expenses incurred by an officer or director in advance of the final disposition of a proceeding shall be made only upon receipt of an undertaking, by or on behalf of such person, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified. The Bylaws also state that the right to indemnification, including the right to advancement of expenses, is a contract right which will continue as to a person who has ceased to be a director or officer or trustee, and inure to the benefit of the heirs, executors and administrators of such person.

As permitted by BCL Section 1713, Kennametal's Bylaws provide that directors generally will not be personally liable for monetary damages for any action taken or failure to take any action unless the director has breached or failed to perform his or her duty as a fiduciary (the standard of care established by the BCL), and such failure constitutes self-dealing, willful misconduct or recklessness; provided, however, that the foregoing provision shall not eliminate or limit the liability of a director (i) for any responsibility or liability of such director pursuant to any criminal statute, or (ii) for any liability of a director for the payment of taxes pursuant to local, State or Federal law.

3. Director and Officer Liability Insurance. Kennametal purchases and maintains directors' and officers' liability insurance. Through this liability insurance, Kennametal provides insurance contracts for its directors and officers which insures them, within the limits and subject to the limitations of the policies, against certain expenses and liabilities which have been incurred by, or resulted from, any actions, suits or proceedings to which they are parties by reason of being or having served as directors or officers of Kennametal.

4. *Indemnification Agreements*. Kennametal has entered into Indemnification Agreements, with such officers of the registrant as are designated from time to time by the Board of Directors.

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The form of agreement provides similar rights to indemnification against liability and expenses as are provided in the Indemnification Bylaws. In addition, the form of agreement provides that Kennametal will pay expenses (including attorneys' fees) incurred or estimated to be incurred by an indemnitee in connection with a threatened, pending or completed action, suit or proceeding in advance of its final disposition provided the indemnitee agrees to repay to Kennametal the amount of such expenses that it is ultimately determined the indemnitee is not entitled to be indemnified for.

In the form of agreement, Kennametal represents that it has directors' and officers' liability insurance in place and agrees to purchase and maintain such insurance, in such amount as is deemed appropriate by the Board of Directors, during the term of the officers service to Kennametal and thereafter (but in no event longer than four years) so long as indemnitee is subject to any possible claim or threatened, pending or completed action, suit or proceeding, by reason of the indemnitees service to Kennametal. The indemnification provided under the form of agreement is not exclusive of any other rights and the indemnification rights provided under the form of agreement of the rights to indemnification provided by the Indemnification Bylaws.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are hereby filed as part of this Registration Statement:

| Exhibit No. | Description |
|-------------|--|
| 4.1 | Articles of Incorporation of Kennametal Inc., as amended and restated through October 28, 2014, incorporated herein by reference to Exhibit 3.(i) to the Corporation's Current Report on Form 8-K filed with the Commission on October 30, 2014. |
| 4.2 | By-Laws of Kennametal Inc., as amended and restated through July 26, 2016, incorporated herein by reference to Exhibit 10.1 to the Corporation's Current Report on Form 8-K filed with the Commission on July 28, 2016. |
| 4.3 | Kennametal Inc. 2016 Stock and Incentive Plan, amended and restated through October 25, 2016, incorporated herein by reference to Appendix C of the Corporation's Proxy Statement filed September 13, 2016. |
| 5.1 | Opinion of Reed Smith LLP.* |
| 23.1 | Consent of Reed Smith LLP (included in the opinion filed as Exhibit 5.1 to this registration statement).* |
| 23.2 | Consent of PricewaterhouseCoopers LLP.* |
| 24.1 | Powers of Attorney (included on signature page hereto). |

Filed herewith.

Item 9. Undertakings.

(a) Rule 415 offering.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933 (the "1933 Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

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(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, *however*, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "1934 Act") that are incorporated by reference in the registration statement;

(2) That, for the purpose of determining any liability under the 1933 Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) Filings incorporating subsequent 1934 Act Documents by Reference.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the 1933 Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the 1934 Act that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Filing of Registration Statement on Form S-8.

Insofar as indemnification for liabilities arising under the 1933 Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the 1933 Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the 1933 Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Pittsburgh, Pennsylvania, on October 25, 2016.

KENNAMETAL INC.

By: /s/ Ronald M. De Feo

Ronald M. De Feo President and Chief Executive Officer (Principal Executive Officer)

Canadity

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Ronald M. De Feo and Michelle R. Keating, and each of them, such person's true and lawful attorneys-in-fact and agents, with full power of substitution and revocation, for such person and in such person's name, place and stead, in any and all capacities to sign any and all amendments (including post-effective amendments to this Registration Statement) and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agent or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated on this 25th day of October, 2016.

Cignoture

| Director; Chairman of the Board of Directors | |
|---|--|
| | |
| Vice President and Chief Financial Officer; Principal Financial Officer | |
| | |
| Vice President Finance and Corporate Controller; Principal Accounting | |
| Officer | |
| Director | |
| | |
| | |

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/s/ Timothy R. McLevish Timothy R. McLevish Director /s/ Sagar A. Patel Sagar A. Patel Director /s/ Steven H. Wunning Steven H. Wunning Director

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EXHIBIT INDEX

- Exhibit No. Description 4.1 Articles of Incorporation of Kennametal Inc., as amended and restated through October 28, 2014, incorporated herein by reference to Exhibit 3.(i) to the Corporation's Current Report on Form 8-K filed with the Commission on October 30, 2014. 4.2 By-Laws of Kennametal Inc., as amended and restated through July 26, 2016, incorporated herein by reference to Exhibit 10.1 to the Corporation's Current Report on Form 8-K filed with the Commission on July 28, 2016. Kennametal Inc. 2016 Stock and Incentive Plan, amended and restated through October 25, 2016, incorporated herein by reference to 4.3 Appendix C of the Corporation's Proxy Statement filed September 13, 2016. Opinion of Reed Smith LLP.* 5.1 23.1 Consent of Reed Smith LLP (included in the opinion filed as Exhibit 5.1 to this registration statement).* 23.2 Consent of PricewaterhouseCoopers LLP.*
- 24.1 Powers of Attorney (included on signature page hereto).
- Filed herewith.

November 7, 2016

Kennametal Inc. 600 Grant Street, Suite 5100 Pittsburgh, Pennsylvania 15219-2706

> Re: Registration Statement on Form S-8 for Kennametal Inc. 2016 Stock and Incentive Plan

Ladies and Gentlemen:

We have acted as counsel to Kennametal Inc., a Pennsylvania corporation (the "Company"), in connection with the registration under the Securities Act of 1933 (the "Act") on Form S-8 (the "Registration Statement") of the issuance by the Company from time to time of up to 3,500,000 shares of its Common Stock, par value \$1.25 per share (the "Shares") under the Company's 2016 Stock and Incentive Plan (the "Plan").

We have examined such corporate records, certificates and other documents, and such questions of law as we have considered necessary or appropriate for the purposes of this opinion. Upon the basis of such examination, we advise you that, in our opinion, the Shares have been duly authorized, and when the Registration Statement has become effective under the Act and when the Shares have been duly issued in accordance with the Plan, the Shares will be validly issued, fully paid and nonassessable.

The foregoing opinion is limited to the Federal laws of the United States and the laws of the Commonwealth of Pennsylvania, and we are expressing no opinion as to the effect of the laws of any other jurisdiction.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Yours truly,

/s/ Reed Smith LLP

REED SMITH LLP

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated August 11, 2016 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in Kennametal Inc.'s Annual Report on Form 10-K for the year ended June 30, 2016.

PricewaterhouseCoopers LLP Pittsburgh, Pennsylvania November 7, 2016