WORTHINGTON INDUSTRIES INC
Form 10-K
July 30, 2018

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended May 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _______ to _______

Commission File Number 1-8399

WORTHINGTON INDUSTRIES, INC.

(Exact Name of Registrant as Specified in its Charter)

Ohio	31-1189815
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
200 Old Wilson Bridge Road, Columbus, Ohio	43085
(Address of Principal Executive Offices)	(Zip Code)

Registrant’s telephone number, including area code: (614) 438-3210

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Shares, Without Par Value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the Registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the Common Shares (the only common equity of the Registrant) held by non-affiliates computed by reference to the closing price on the New York Stock Exchange on November 30, 2017, the last business day of the Registrant's most recently completed second fiscal quarter, was $1,781,949,312. For this purpose, executive officers and directors of the Registrant are considered affiliates.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of the latest practicable date. On July 24, 2018, the number of Common Shares issued and outstanding was 59,839,778.

DOCUMENT INCORPORATED BY REFERENCE:

Selected portions of the Registrant's definitive Proxy Statement to be furnished to shareholders of the Registrant in connection with the Annual Meeting of Shareholders to be held on September 26, 2018, are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent provided herein.

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SAFE HARBOR STATEMENT

Selected statements contained in this Annual Report on Form 10-K, including, without limitation, in "PART I – Item 1. – Business" and "PART II – Item 7. – Management's Discussion and Analysis of Financial Condition and Results of Operations," constitute "forward-looking statements" as that term is used in the Private Securities Litigation Reform Act of 1995 (the "Act"). Forward-looking statements reflect our current expectations, estimates or projections concerning future results or events. These statements are often identified by the use of forward-looking words or phrases such as "believe," "expect," "anticipate," "may," "could," "intend," "estimate," "plan," "foresee," "likely," "will," "should," or other si phrases. These forward-looking statements include, without limitation, statements relating to:

- outlook, strategy or business plans;
- future or expected growth, growth potential, forward momentum, performance, competitive position, sales, volumes, cash flows, earnings, balance sheet strengths, debt, financial condition or other financial measures;
- pricing trends for raw materials and finished goods and the impact of pricing changes;
- demand trends for us or our markets;
- additions to product lines and opportunities to participate in new markets;
- expected benefits from Transformation and innovation efforts and the ability to improve performance and competitive position at our operations;
- anticipated working capital needs, capital expenditures and asset sales;
- anticipated improvements and efficiencies in costs, operations, sales, inventory management, sourcing and the supply chain and the results thereof;
- projected profitability potential;
- the ability to successfully integrate AMTROL and the expected benefits, costs and results from the acquisition of AMTROL;
- the ability to make acquisitions and the projected timing, results, benefits, costs, charges and expenditures related to acquisitions, newly-created joint ventures, headcount reductions and facility dispositions, shutdowns and consolidations;
- the expected sale of the WAVE international business;
- projected capacity and the alignment of operations with demand;
- the ability to operate profitably and generate cash in down markets;
- the ability to maintain margins and capture and maintain market share and to develop or take advantage of future opportunities, customer initiatives, new businesses, new products and new markets;
- expectations for Company and customer inventories, jobs and orders;
- expectations for the economy and markets or improvements therein;
- expectations for generating improving and sustainable earnings, earnings potential, margins or shareholder value;
- the expected impact of the provisions of the Tax Cuts and Jobs Act (the "TCJA") on the Company;

- effects of judicial rulings; and
- other non-historical matters.

Because they are based on beliefs, estimates and assumptions, forward-looking statements are inherently subject to risks and uncertainties that could cause actual results to differ materially from those projected. Any number of factors could affect actual results, including, without limitation, those that follow:

- the effect of national, regional and global economic conditions generally and within major product markets, including a recurrent slowing economy;
- the effect of conditions in national and worldwide financial markets;
- the impact of tariffs, the adoption of trade restrictions affecting our products or suppliers, a United States withdrawal from or significant renegotiation of trade agreements, the occurrence of trade wars, and other changes in trade regulations;
- lower oil prices as a factor in demand for products;
- product demand and pricing;
- changes in product mix, product substitution and market acceptance of our products;
- fluctuations in the pricing, quality or availability of raw materials (particularly steel), supplies, transportation, utilities and other items required by operations;
- effects of facility closures and the consolidation of operations;
- the effect of financial difficulties, consolidation and other changes within the steel, automotive, construction, oil and gas, and other industries in which we participate;
- failure to maintain appropriate levels of inventories;
- financial difficulties (including bankruptcy filings) of original equipment manufacturers, end-users and customers, suppliers, joint venture partners and others with whom we do business;
- the ability to realize targeted expense reductions from headcount reductions, facility closures and other cost reduction efforts;
- the ability to realize cost savings and operational, sales and sourcing improvements and efficiencies, and other expected benefits from Transformation initiatives, on a timely basis;
- the overall success of, and the ability to integrate, newly-acquired businesses and joint ventures, maintain and develop their customers, and achieve synergies and other expected benefits and cost savings therefrom;
- capacity levels and efficiencies, within facilities, within major product markets and within the industries as a whole;
- the effect of disruption in the business of suppliers, customers, facilities and shipping operations due to adverse weather, casualty events, equipment breakdowns, civil unrest, international conflicts, terrorist activities or other causes;
- changes in customer demand, inventories, spending patterns, product choices, and supplier choices;
- risks associated with doing business internationally, including economic, political and social instability, foreign currency exchange rate exposure and the acceptance of our products in global markets;

- the ability to improve and maintain processes and business practices to keep pace with the economic, competitive and technological environment;
- the outcome of adverse claims experience with respect to workers' compensation, product recalls or product liability, casualty events or other matters;
- deviation of actual results from estimates and/or assumptions used by us in the application of our significant accounting policies;
- level of imports and import prices in our markets;
- the impact of judicial rulings and governmental regulations, both in the United States and abroad, including those adopted by the United States Securities and Exchange Commission and other governmental agencies as contemplated by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010;
- the effect of healthcare laws in the United States and potential changes for such laws which may increase our healthcare and other costs and negatively impact our operations and financial results;
- the actual impact on our business of the TCJA differing materially from our estimates;
- cyber security risks;
- the effects of privacy and information security laws and standards; and
- other risks described from time to time in the filings of Worthington Industries, Inc. with the United States Securities and Exchange Commission, including those described in "PART I – Item 1A. – Risk Factors" of this Annual Report on Form 10-K.

We note these factors for investors as contemplated by the Act. It is impossible to predict or identify all potential risk factors. Consequently, you should not consider the foregoing list to be a complete set of all potential risks and uncertainties. Any forward-looking statements in this Annual Report on Form 10-K are based on current information as of the date of this Annual Report on Form 10-K, and we assume no obligation to correct or update any such statements in the future, except as required by applicable law.

PART I

Item 1. — Business

General Overview

Worthington Industries, Inc. is a corporation formed under the laws of the State of Ohio (individually, the “Registrant” or “Worthington Industries” or, collectively with the subsidiaries of Worthington Industries, Inc., “we,” “our,” “Worthington” or the “Company”). Founded in 1955, Worthington is primarily a diversified metals manufacturing company, focused on value-added steel processing and manufactured metal products. Our manufactured metal products include: pressure cylinders for liquefied petroleum gas (“LPG”), compressed natural gas (“CNG”), oxygen, refrigerant and other industrial gas storage; water well tanks for commercial and residential uses; hand torches and filled hand torch cylinders; propane-filled camping cylinders; helium-filled balloon kits; steel and fiberglass tanks and processing equipment primarily for the oil and gas industry; cryogenic pressure vessels for liquefied natural gas (“LNG”) and other gas storage applications; engineered cabs and operator stations and cab components; and, through our joint ventures, complete ceiling grid solutions; laser welded blanks; light gauge steel framing for commercial and residential construction; and current and past model automotive service stampings.

Worthington is headquartered at 200 Old Wilson Bridge Road, Columbus, Ohio 43085, telephone (614) 438-3210. The common shares of Worthington Industries are traded on the New York Stock Exchange under the symbol WOR.

Worthington Industries maintains an Internet web site at www.worthingtonindustries.com. This uniform resource locator, or URL, is an inactive textual reference only and is not intended to incorporate Worthington Industries’ web site into this Annual Report on Form 10-K. Worthington Industries’ Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, filed or furnished pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as well as Worthington Industries’ definitive annual meeting proxy materials filed pursuant to Section 14 of the Exchange Act, are available free of charge, on or through the Worthington Industries web site, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission (the “SEC”).

Segments

As of May 31, 2018, we, together with our unconsolidated affiliates, operated 85 manufacturing facilities in 25 states and 11 countries. Thirty-six of these facilities are operated by wholly-owned and consolidated subsidiaries of the Company. The remaining facilities are operated by our consolidated and unconsolidated joint ventures.

Our operations are managed principally on a products and services basis and are comprised of three primary operating segments which correspond with our reportable business segments: Steel Processing; Pressure Cylinders; and Engineered Cabs. The Steel Processing operating segment consists of the Worthington Steel business unit (“Worthington Steel”) which operates eight manufacturing facilities (seven of which we own); and three consolidated joint ventures: Spartan Steel Coating, LLC (“Spartan”), which operates a cold-rolled, hot-dipped galvanizing line in Monroe, Michigan; TWB Company, L.L.C. (“TWB”), which operates 10 laser welded blank facilities and is headquartered in Monroe, Michigan; and Worthington Specialty Processing (“WSP”), which processes wide-sheet steel for the auto industry and operates three facilities in Michigan. The Pressure Cylinders operating segment consists of the Worthington Cylinders business unit (“Worthington Cylinders”), which includes recently-acquired New AMTROL Holdings, Inc. and its subsidiaries (collectively “AMTROL”), and operates 24 manufacturing facilities. The Engineered Cabs operating segment consists of the Worthington Industries Engineered Cabs business unit (“Engineered Cabs”), which operates four manufacturing facilities.

Effective June 1, 2017, Worthington Steelpac Systems, LLC (“Packaging Solutions”), which designs and manufactures recyclable steel packaging solutions for the movement of products and operates one manufacturing facility, was realigned under the Engineered Cabs operating segment, moving from the Steel Processing operating segment. See the Recent Developments section below.

On June 2, 2017, we acquired AMTROL, which operates as part of the Pressure Cylinders operating segment. See the Recent Developments section below.

We hold equity positions in 9 joint ventures, which are further discussed in the Joint Ventures section below. Of these, Spartan, TWB and WSP are consolidated with their operating results reported within our Steel Processing operating segment.

During the fiscal year ended May 31, 2018 (“fiscal 2018”), the Steel Processing, Pressure Cylinders and Engineered Cabs operating segments served approximately 800, 4,500, and 65 customers, respectively, located primarily in the United States. International operations accounted for approximately 9% of our consolidated net sales during fiscal 2018 and were comprised primarily of sales to customers in Europe. No single customer accounted for over 10% of our consolidated net sales in fiscal 2018.

Refer to “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note N – Segment Data” of this Annual Report on Form 10-K for a full description of our reportable business segments.

Recent Developments

Effective June 1, 2017, we made certain organizational changes impacting the internal reporting and management structure of Packaging Solutions. As a result of these organizational changes, management responsibilities and internal reporting were realigned, moving Packaging Solutions from the Steel Processing reportable segment to the Engineered Cabs reportable segment, where we expect to achieve synergies in design engineering and manufacturing development.

On June 2, 2017, we acquired AMTROL, a leading manufacturer of pressure cylinders and water system tanks, which is part of our Pressure Cylinders reportable segment. AMTROL has manufacturing facilities in Rhode Island, Kentucky and Maryland which also produce refrigerant gas cylinders and ASME code products for industrial and commercial applications. Its Portuguese subsidiary, AMTROL-ALFA, is a leading European producer of LPG, refrigerant, industrial and specialty gas cylinders. The aggregate merger consideration for AMTROL was approximately $291.9 million after closing adjustments. A portion of the merger consideration was used to pay off certain indebtedness and other liabilities of AMTROL.

On November 20, 2017, we announced that our joint venture Worthington Armstrong Venture (“WAVE”) has agreed to sell its business and operations in Europe and Asia, to the Knauf Group, a family-owned manufacturer of building materials headquartered in Germany. The WAVE businesses and operations in the Americas are not part of this transaction. The transaction is subject to regulatory approvals and other customary closing conditions and is anticipated to close before the end of calendar 2018.

On March 31, 2018, we sold a 65% stake in Worthington Energy Innovations, LLC (“WEI”) to its founder, Tom Kiser, who already owned 20% of the business. We now hold a 10% equity interest and will have a passive role in the business.

On May 23, 2018, we acquired the remaining 25% ownership interest in Turkey-based Worthington Arıtaş Basınçlı Kaplar Sanayi (“Worthington Aritas”), a manufacturer of cryogenic pressure vessels for LNG and other gas storage applications. Management committed to a plan to sell this business in a non-cash transaction. The net assets of Worthington Aritas are now classified as assets held for sale in our consolidated balance sheets.

Steel Processing

Our Steel Processing reportable segment consists of the Worthington Steel business unit, our consolidated joint ventures, Spartan, TWB and, beginning with the last quarter of fiscal 2016, WSP. It also included Packaging Solutions through May 31, 2017. For fiscal 2018, fiscal 2017 and fiscal 2016, the percentage of our consolidated net sales generated by the Steel Processing operating segment was approximately 63%, 69% and 65%, respectively.

Worthington Steel is one of the largest independent intermediate processors of flat-rolled steel in the United States. It occupies a niche in the steel industry by focusing on products requiring exact specifications. These products cannot typically be supplied as efficiently by steel mills to the end-users of these products.

As of May 31, 2018, the Steel Processing reportable segment, including Spartan, TWB, and WSP, operated 22 manufacturing facilities located in Ohio (5), Michigan (5), Mexico (5), Tennessee (2), Indiana (1), Alabama (1), Kentucky (1), New York (1), and Canada (1).

Our Steel Processing reportable segment serves approximately 800 customers, principally in the automotive, aerospace, agricultural, appliance, construction, container, hardware, HVAC, lawn and garden, leisure and recreation, office furniture and office equipment markets. The automotive industry is one of the largest consumers of flat-rolled steel, and thus the largest end market for our Steel Processing operating segment. For fiscal 2018, Steel Processing's top three customers represented approximately 32% of the operating segment's total net sales.

Our Steel Processing reportable segment buys coils of steel from integrated steel mills and mini-mills and processes them to the precise type, thickness, length, width, shape and surface quality required by customer specifications. Computer-aided processing capabilities include, among others:

- cold reducing, which achieves close tolerances of thickness;
- configured blanking, which mechanically stamps steel into specific shapes;
- coil fed laser blanking, which uses lasers to cut coils of steel, aluminum and other metals into specific shapes;
- cutting-to-length, which cuts coils into sheets of exact length;
- dry-lube, the process of coating steel with a dry, soap-based lubricant;
- hot-dipped galvanizing, which coats steel with zinc and zinc alloys through a hot-dip process;
- hydrogen annealing, a thermal process that changes the hardness and certain metallurgical characteristics of steel;
- laser welding, which joins steel or aluminum blanks and coils with different thicknesses, coatings or material strength;
- pickling, a chemical process using an acidic solution to remove surface oxide which develops on hot-rolled steel;
- slitting, which cuts steel coils or steel sheets to specific widths;
- oscillate slitting, a slitting process that spools together several narrow coils welded end-to-end into one larger coil;
- temper rolling, which is the process of light cold-rolling steel;
- tension leveling, a method of applying pressure to achieve precise flatness tolerances; and
- non-metallic coating, including acrylic and paint coating.

Our Steel Processing reportable segment also toll processes steel for steel mills, large end-users, service centers and other processors. Toll processing is different from typical steel processing in that the mill, end-user or other party retains title to the steel and has the responsibility for selling the end product. Toll processing enhances Worthington Steel's participation in the market for wide sheet steel and large standard orders, a market generally served by steel mills rather than by intermediate steel processors.

The steel processing industry is fragmented and highly competitive. There are many competitors, including other independent intermediate processors. Competition is primarily on the basis of price, product quality and the ability to meet delivery requirements. Technical service and support for material testing and customer-specific applications enhance the quality of products (see the Technical Services section below). However, the extent to which technical service capability has improved Worthington Steel's competitive position has not been quantified. Worthington Steel's ability to meet tight delivery schedules is, in part, based on the proximity of our facilities to customers, suppliers and one another. The extent to which plant location has impacted Worthington Steel's competitive position has not been quantified. Processed steel products are priced competitively, primarily based on market factors, including, among other things, market pricing, the cost and availability of raw materials, transportation and shipping costs, and overall economic conditions in the United States and abroad.

Effective in the first quarter of fiscal 2018, the operations of Packaging Solutions were realigned, moving from the Steel Processing reportable segment to the Engineered Cabs reportable segment.

Pressure Cylinders

The Pressure Cylinders reportable segment consists of the Worthington Cylinders business unit and Worthington Aritas. Worthington Aritas is a manufacturer of cryogenic pressure vessels for LNG and other gas storage applications. The percentage of our consolidated net sales generated by Pressure Cylinders was approximately 34%, 28% and 30% in fiscal 2018, fiscal 2017 and fiscal 2016, respectively. We acquired AMTROL on June 2, 2017, which has been included in the Pressure Cylinders reportable segment since that date, and accounted for approximately 7% of the Company's consolidated net sales in fiscal 2018.

Our Pressure Cylinders reportable segment manufactures and sells filled and unfilled pressure cylinders, tanks, hand torches, well water and expansion tanks, and oil and gas equipment along with various accessories and related products for diversified end-use market applications. The following is a description of these markets:

- Industrial Products: This market sector includes high pressure and acetylene cylinders for industrial gases, refrigerant and certain propane gas cylinders, cryogenic equipment and systems and services for handling liquid gases, and other specialty products. Cylinders in this market sector are generally sold to gas producers, cylinder exchangers and industrial distributors. Industrial cylinders hold fuel for uses such as cutting, brazing and soldering, semiconductor production, and beverage delivery. Refrigerant gas cylinders are used to hold refrigerant gases for commercial, residential and automotive air conditioning and refrigeration systems. LPG cylinders hold fuel for barbeque grills, recreational vehicle equipment, residential and light commercial heating systems, industrial forklifts and commercial/residential cooking (the latter, generally outside North America). Cryogenic equipment and systems include LNG systems for marine and mining applications, liquid nitrogen storage freezers and shipping containers for organic specimens in healthcare markets, and tanks, trailers, and regasification plants for liquefied nitrogen, oxygen, argon, hydrogen, and natural gas. Specialty products include a variety of fire suppression and chemical tanks.
- Consumer Products: This market sector includes propane-filled cylinders for torches, camping stoves and other applications, hand held torches and accessories such as solder and brazing rods, Balloon Time® helium-filled balloon kits, well water tanks and expansion tanks. These products are sold primarily to mass merchandisers and distributors.
- Alternative Fuels: This market sector includes composite and steel cylinders used to hold CNG and hydrogen for automobiles, buses, and light-duty trucks, and to hold propane/autogas for automobiles and light- and medium-duty trucks, as well as CNG fuel systems for heavy duty, refuse and other trucks.
- Oil & Gas Equipment: This market sector includes steel and fiberglass storage tanks, separation equipment, controls and other products primarily used in the energy markets, including oil and gas and nuclear. This market sector also

includes hoists and other marine products which are used principally in shipyard lift systems. It also leverages its manufacturing competencies to produce pressure vessels, atmospheric tanks, controls and various custom machined components for other industrial and agricultural end markets.

While a large percentage of Pressure Cylinders sales are made to major accounts, this operating segment served approximately 4,500 customers during fiscal 2018. No single customer represented greater than 10% of net sales for the Pressure Cylinders operating segment during fiscal 2018.

The Pressure Cylinders reportable segment, operates 24 manufacturing facilities located in Alabama, California, Kansas (2), Kentucky, Maryland, North Carolina, North Dakota, Ohio (6), Oklahoma, Rhode Island, Utah, Wisconsin, Austria, Poland (2), Portugal (2) and Turkey.

For sales in the United States and Canada, high-pressure and low-pressure cylinders are primarily manufactured in accordance with United States Department of Transportation and Transport Canada specifications. Outside the United States and Canada, cylinders are manufactured according to European norm specifications, as well as various other international standards. Other products are produced to applicable industry standards including, as applicable, those standards issued by the American Petroleum Institute, ASME and UL.

Worthington Cylinders has one principal domestic competitor in the low-pressure LPG cylinder market, and there are a number of foreign competitors in the LPG cylinder market and in the non-refillable refrigerant market. We believe that Worthington Cylinders has the largest market share in its domestic low-pressure cylinder markets. In the other cylinder markets, there are several competitors. Worthington Cylinders is a leading supplier to the European markets for both the high-pressure cylinders and the low-pressure non-refillable cylinders. Worthington Cylinders generally has a strong competitive position for its industrial, energy, retail and specialty products, but competition varies on a product-by-product basis, and geographically for energy products. As with our other operating segments, competition is based upon price, service and quality.

The Pressure Cylinders reportable segment uses the trade names “Worthington Cylinders”, “AMTROL” and “Alfa” to conduct business.

The Company uses the registered trademark “Balloon Time®” to market helium-filled balloon kits; the registered trademark “BERNZOMATIC®” to market certain fuel cylinders and hand held torches; the trademark “WORTHINGTON PRO-GRADE” to market certain LPG cylinders, hand torches and camping fuel cylinders; and the registered trademarks “MAP-PRO®” and “Pro-Max®” to market certain hand torch cylinders; “Therm-X-Trol®” and “Extrol®” to market thermal expansion tanks; “Well X Trol®”, “Champion®”, and “Wel-Flo and Design®” to market well tanks; and “Hydromax®” and “Boilermate®” to market indirect fired water heaters.

Engineered Cabs

The Engineered Cabs reportable segment consists of the Worthington Industries Engineered Cabs business unit and, effective June 1, 2017, our Packaging Solutions business. For fiscal 2018, fiscal 2017 and fiscal 2016, the percentage of our consolidated net sales generated by the Engineered Cabs operating segment was approximately 3%, 3%, and 4%, respectively.

Engineered Cabs is headquartered in Columbus, Ohio and operates four manufacturing facilities, one each in Indiana, Ohio, South Dakota and Tennessee, which are located near key assembly locations of original equipment manufacturers.

Engineered Cabs is a non-captive designer and manufacturer of high-quality, custom-engineered open and enclosed cabs and operator stations and custom fabrications and packaging for heavy mobile equipment used primarily in the agricultural, construction, forestry, military and mining industries. Engineered Cabs' product design, engineering support and broad manufacturing capabilities enable it to produce custom cabs and structures used in products ranging from small utility equipment to the large earthmovers. Packaging Solutions designs and manufactures reusable custom steel platforms, racks and pallets for supporting, protecting and handling products throughout the shipping process.

In addition to its engineered cab products, this operating segment has the capability to provide a full suite of complementary products such as machined structural components, complex and painted weldments, and engine doors. Engineered Cabs has the manufacturing capability for steel laser cutting, steel bending and forming, roll-form tube curving and bending, machining, welding – robotic and manual, automated steel product cleaning and E-coating, top coat painting and assembly.

Engineered Cabs produces products for approximately 100 different equipment platforms for approximately 65 customers. For fiscal 2018, Engineered Cabs' top three customers represented approximately 55% of the operating segment's total net sales. Its production levels can range from small and medium production volumes through high volume productions.

Engineered Cabs competes with a limited number of non-captive producers of engineered cabs in the United States, although there are numerous other suppliers who can perform various functions supplied by the Company. Some customers can also produce operator cabs in-house. The Company's competitive strengths include design and engineering capabilities as well as broad manufacturing capabilities, often providing a fully-integrated complete cab at a more effective cost than customers can produce in-house. Competitive drivers are related to innovation, quality, delivery and service.

Key supplies for this operating segment include steel sheet and plate, stampings, steel tubing, hardware, controls, wiper systems, glazing materials (glass, polycarbonate), perishables (paint, urethane, caulk), electrical materials, HVAC systems and aesthetic materials (acoustical trim, plastics, foam), which are available from a variety of sources.

As noted above, effective June 1, 2017, the operations of Packaging Solutions were realigned, moving from the Steel Processing reportable segment to the Engineered Cabs reportable segment. Packaging Solutions operates one facility in Indiana.

Segment Financial Data

Financial information for the reportable business segments is provided in "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note N – Segment Data".

Financial Information About Geographic Areas

For fiscal 2018, our international operations represented 9% of our consolidated net sales, 6% of our net earnings attributable to controlling interest and 14% of our consolidated net assets. During fiscal 2018, fiscal 2017 and fiscal 2016, we had consolidated operations in Austria, Canada, Mexico, Poland, Portugal, Turkey and the United States. During these same three fiscal years, our unconsolidated joint ventures had operations in China, France, Mexico, the United Kingdom and the United States. As noted in the Recent Developments section above, our joint venture WAVE has agreed to sell its business and operations in Europe and Asia. The transaction is subject to regulatory approvals and other customary closing conditions and is anticipated to close before the end of calendar 2018. Summary information about our foreign operations, including net sales and fixed assets by geographic region, is provided in "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note A – Summary of Significant Accounting Policies – Risks and Uncertainties" and "Note N – Segment Data" of this Annual Report on Form 10-K.

Suppliers

The primary raw material purchased by Worthington is steel. We purchase steel in large quantities at regular intervals from major primary producers of steel, both domestic and foreign. The amount purchased from any particular supplier varies from year to year depending on a number of factors including market conditions, then current relationships and prices and terms offered. In nearly all market conditions, steel is available from a number of suppliers and generally any supplier relationship or contract can and has been replaced with little or no significant interruption to our business. During fiscal 2018, we purchased approximately 2.7 million tons of steel (73% hot-rolled, 12% cold-rolled and 15% galvanized) on a consolidated basis.

In the Steel Processing operating segment, steel is primarily purchased and processed based on specific customer orders. The Pressure Cylinders and Engineering Cabs operating segments purchase steel to meet production schedules. For certain raw materials, there are more limited suppliers -- for example, helium and zinc, which are generally purchased at market prices. Since there are a limited number of suppliers in the helium and zinc markets, if delivery from a major supplier is disrupted due to a force majeure type occurrence, it may be difficult to obtain an alternative supply. Raw materials are generally purchased in the open market on a negotiated spot-market basis at prevailing market prices. Supply contracts are also entered into, some of which have fixed pricing and some of which are indexed (monthly or quarterly). During fiscal 2018, we purchased steel from the following major suppliers, in alphabetical order: AK Steel Holding Corporation; ArcelorMittal; NLMK USA; North Star BlueScope Steel, LLC; Nucor Corporation; Steel Dynamics, Inc.; and United States Steel Corporation ("U.S. Steel"). Major suppliers of aluminum to the Pressure Cylinders operating segment in fiscal 2018 were, in alphabetical order: Arconic Inc.; DK Resources Limited; Geumsan Tech; Meyer Aluminum; Sapa Group and Shanghai Everskill. Major suppliers of zinc to the Steel Processing operating segment in fiscal 2018 were, in alphabetical order: Considar Metal Marketing Inc. (a/k/a HudBay); Glencore Ltd; and Teck Resources Limited. Approximately 29.1 million pounds of zinc and 4.9 million pounds of aluminum were purchased in fiscal 2018. We believe our supplier relationships are good.

Technical Services

We employ a staff of engineers and other technical personnel, and we maintain fully equipped laboratories to support operations. These facilities enable verification, analysis and documentation of the physical, chemical, metallurgical and mechanical properties of raw materials and products. Technical Service personnel also work in conjunction with the sales force to specify components and materials required to fulfill customer needs. Engineers at Engineered Cabs design cabs and cab manufacturing processes according to applicable industry standards. To provide these services, we maintain a continuing program of developmental engineering with respect to product characteristics and product performance under applicable operating conditions. Laboratory facilities also perform metallurgical and chemical testing as dictated by the regulations of the United States Department of Transportation, Transport Canada, and other associated agencies, along with International Organization for Standardization (ISO), ASTM International, and other customer and industry specific requirements. An IASI (International Accreditations Service, Incorporated) accredited product material testing laboratory supports some of these efforts.

Seasonality and Backlog

Sales are generally strongest in the fourth quarter of our fiscal year as our operating segments are generally operating at seasonal peaks. Historically, sales have generally been weaker in the third quarter of our fiscal year, primarily due to reduced activity in the building and construction industry as a result of inclement weather, as well as customer plant shutdowns, particularly in the automotive industry, due to holidays. We do not believe backlog is a significant indicator of our business.

Employees

As of May 31, 2018, we had approximately 12,000 employees, including those employed by our unconsolidated joint ventures. Approximately 9% of our consolidated labor force is represented by collective bargaining units. Worthington believes it has good relationships with its employees, including those covered by collective bargaining units.

Joint Ventures

As part of our strategy to selectively develop new products, markets and technological capabilities and to expand our international presence, while mitigating the risks and costs associated with those activities, as of May 31, 2018, we participated in three consolidated and six unconsolidated joint ventures.

Consolidated

The results of the following three consolidated joint ventures have been consolidated with the financial results of the Company since the respective dates on which the Company acquired majority ownership or effective control. The equity owned by the minority members is shown as noncontrolling interests on our consolidated balance sheets and their portions of net earnings are included as net earnings attributable to noncontrolling interests in our consolidated statements of earnings. The financial results of all of our consolidated joint ventures are consolidated within the Steel Processing operating segment.

- Spartan is a 52%-owned consolidated joint venture with AK Steel Corporation, located in Monroe, Michigan. It operates a cold-rolled, hot-dipped galvanizing line for toll processing steel coils into galvanized and galvannealed products intended primarily for the automotive industry.
- TWB Company, L.L.C. is a 55%-owned consolidated joint venture with a subsidiary of Baoshan Iron & Steel Co., Ltd. ("Bao"). It is a leading North American supplier of laser welded blanks, tailor welded aluminum blanks, laser welded coils and other laser welded products for use primarily in the automotive industry for products such as inner-door panels, body sides, rails and pillars. TWB operates facilities in Monroe, Michigan; Glasgow, Kentucky; Antioch and Smyrna, Tennessee; Puebla, Ramos Arizpe (Saltillo), Escobedo (Monterrey), Hermosillo and Silao, Mexico; and Cambridge, Ontario, Canada.

- WSP, a 51%-owned joint venture with a subsidiary of U.S. Steel, operates three steel processing facilities located in Canton, Jackson and Taylor, Michigan, which are managed by Steel Processing. WSP serves primarily as a toll processor for U.S. Steel and others. WSP's services include slitting, blanking, cutting-to-length, laser blanking, laser welding, tension leveling and warehousing.

Unconsolidated

- ArtiFlex Manufacturing, LLC ("ArtiFlex"), a 50%-owned joint venture with ITS-H Holdings, LLC, provides an integrated solution for engineering, tooling, stamping, assembly and other services to customers primarily in the automotive industry. ArtiFlex operates six manufacturing facilities: three in Michigan, two in Ohio and one in Kentucky.
- Clarkwestern Dietrich Building Systems LLC ("ClarkDietrich"), a 25%-owned joint venture with CWBS-MISA, Inc., is the industry leader in the manufacture and supply of light gauge steel framing products in the United States. ClarkDietrich manufactures a full line of drywall studs and accessories, structural studs and joists, metal lath and accessories, shaft wall studs and track, vinyl and finishing products used primarily in residential and commercial construction. This joint venture operates 14 manufacturing facilities, one each in Connecticut, Georgia, Hawaii, Illinois, Maryland and Missouri and two each in California, Ohio, Florida and Texas.
- Samuel Steel Pickling Company ("Samuel"), a 31.25%-owned joint venture with Samuel Manu-Tech Pickling Inc., operates one steel pickling facility in Twinsburg, Ohio, and another in Cleveland, Ohio.
- Serviacero Planos, S. de R.L. de C.V. ("Serviacero Worthington"), a 50%-owned joint venture with Inverzer, S.A. de C.V., operates three facilities in Mexico, one each in Leon, Queretaro and Monterrey. Serviacero Worthington provides steel processing services, such as pickling, blanking, slitting, multi-blanking and cutting-to-length, to customers in a variety of industries including automotive, appliance and heavy equipment.
- WAVE, a 50%-owned joint venture with Armstrong Ventures, Inc., a subsidiary of Armstrong World Industries, Inc., is one of the two largest global manufacturers of ceiling suspension systems for concealed and lay-in panel ceilings used in commercial and residential ceiling markets. It competes with the one other global manufacturer and numerous regional manufacturers. WAVE operates nine facilities in five countries: Santa Fe Springs, California; Alpharetta, Georgia; Aberdeen, Maryland; Benton Harbor, Michigan; North Las Vegas, Nevada; Qingpu, Shanghai, China; Team Valley, United Kingdom; Prouvy, France; and Marval, Pune, India. As noted in the Recent Developments section above, our joint venture WAVE entered into an agreement to sell its business and operations in Europe and Asia. The transaction is subject to regulatory approvals and other customary closing conditions and is anticipated to close before the end of calendar 2018.
- Zhejiang Nisshin Worthington Precision Specialty Steel Co., Ltd., a 10%-owned unconsolidated joint venture with Nisshin Steel Co., Ltd. and Marubeni-Itochu Steel Inc., operates one steel processing facility in Pinghu City, Zhejiang, China.

See "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note B – Investments in Unconsolidated Affiliates" of this Annual Report on Form 10-K for additional information about our unconsolidated joint ventures.

Environmental Regulation

Our manufacturing facilities, generally in common with those of similar industries making similar products, are subject to many federal, state, local and foreign laws and regulations relating to the protection of the environment. We examine ways to reduce emissions and waste and to decrease costs related to environmental compliance. The cost of compliance or capital expenditures for environmental control facilities required to meet environmental requirements are not anticipated to be material when compared with overall costs and capital expenditures and, accordingly, are not anticipated to have a material effect on our financial position, results of operations or cash flows, or on the competitive position of Worthington or any particular business segment.

Item 1A. — Risk Factors

Future results and the market price for Worthington Industries' common shares are subject to numerous risks, many of which are driven by factors that cannot be controlled or predicted. The following discussion, as well as other sections of this Annual Report on Form 10-K, including "PART II—Item 7. — Management's Discussion and Analysis of Financial Condition and Results of Operations," describe certain business risks. Consideration should be given to the risk factors described below as well as those in the Safe Harbor Statement at the beginning of this Annual Report on Form 10-K, in conjunction with reviewing the forward-looking statements and other information contained in this Annual Report on Form 10-K. The risks described below are not the only risks we face. Our business operations could also be affected by additional factors that are not presently known to us or that we currently consider to be immaterial in our operations.

Risks Related to Our Business

General Economic or Industry Downturns and Weakness

Our industries are cyclical and weakness or downturns in the general economy or certain industries could have an adverse effect on our business. If the domestic or global economies, or certain industry sectors of those economies that are key to our sales, deteriorate, it could result in a corresponding decrease in demand for our products and negatively impact our results of operations and financial condition.

The automotive and construction industries account for a significant portion of our net sales, and reduced demand from these industries could adversely affect our business. An overall downturn in the general economy, a disruption in capital and credit markets, high unemployment, reduced consumer confidence or other factors could cause reductions in demand from our end markets in general and, in particular, the automotive and construction end markets. If demand for the products we sell to the automotive, construction or other end markets which we supply were to be reduced, our sales, financial results and cash flows could be negatively affected.

We face intense competition which may cause decreased demand, decreased market share and/or reduced prices for our products and services. Our businesses operate in industries that are highly competitive and have been subject to increasing consolidation of customers. Because of the range of the products and services we sell and the variety of markets we serve, we encounter a wide variety of competitors. Our failure to compete effectively and/or pricing pressures resulting from competition may adversely impact our businesses and financial results.

Financial difficulties and bankruptcy filings by our customers could have an adverse impact on our businesses. In past years, some customers have experienced and some continue to experience challenging financial conditions. The financial difficulties of certain customers and/or their failure to obtain credit or otherwise improve their overall financial condition could result in changes within the markets we serve, including plant closings, decreased production, reduced demand, changes in product mix, unfavorable changes in the prices, terms or conditions we are able to obtain and other changes that may result in decreased purchases from us and otherwise negatively impact our businesses. These conditions also increase the risk that our customers may delay or default on their payment obligations to us. If the general economy or any of our markets decline, the risk of bankruptcy filings by and financial difficulties of our customers may increase. While we have taken and will continue to take steps intended to mitigate the impact of financial difficulties and potential bankruptcy filings by our customers, these matters could have a negative impact on our businesses.

Volatility in the prices of natural gas and/or oil may adversely affect the demand for products in our oil and gas equipment business. Volatility or weakness in oil prices or natural gas prices, or the perception of future price weakness, affects the spending patterns of our customers within the oil and gas equipment business and the demand for our products. This has resulted and may continue to result in the drilling of fewer wells and lower production spending on existing wells, lowering demand for our oil and gas equipment products and negatively impacting our results of operations and financial condition. Likewise, recent downturns in the oil industry have limited, and may continue to limit, the number of vehicles changing from gasoline as a fuel to CNG, propane or alternative fuels which could negatively impact demand for our alternative fuel cylinders and systems.

Volatility in the United States and worldwide capital and credit markets could impact our end markets and result in negative impacts on demand, increased credit and collection risks and other adverse effects on our businesses. The domestic and worldwide capital and credit markets have experienced significant volatility, disruptions and dislocations with respect to price and credit availability. These factors caused diminished availability of credit and other capital in our end markets, and for participants in, and the customers of, those markets. Although domestic credit markets have largely stabilized from the height of the financial crisis, the effects of the financial crisis continue to present additional risks to us, our customers and suppliers. In particular, there is no guarantee that the credit markets or liquidity will not once again be restricted. Additionally, stricter lending standards may make it more difficult and costly for some firms to access the credit markets. Further, uncertainties in Europe regarding the financial sector and sovereign debt and the potential impact on banks in other regions of the world will continue to weigh on global and domestic growth. Although we believe we have adequate access to several sources of contractually committed borrowings and other available credit facilities, these risks could temporarily restrict our ability to borrow money on acceptable terms in the credit markets and potentially could affect our ability to draw on our credit facilities. In addition, restricted access to the credit markets could make it difficult, or in some cases, impossible for customers to borrow money to fund their operations. Lack of, or limited access to, capital would adversely affect our customers' ability to purchase our products or, in some cases, to pay for our products on a timely basis.

Raw Material Pricing and Availability

Our operating results may be adversely affected by declining steel prices. If steel prices or other raw material prices decrease, competitive conditions may impact how quickly we must reduce our prices to our customers, and we could be forced to use higher-priced raw materials then on hand to complete orders for which the selling prices have decreased. Decreasing steel prices could also require us to write-down the value of our inventory to reflect current market pricing.

Our operating results may be affected by fluctuations in raw material prices and our ability to pass on increases in raw material costs to our customers. Our principal raw material is flat-rolled steel, which we purchase from multiple primary steel producers. The steel industry as a whole has been cyclical, and at times availability and pricing can be volatile due to a number of factors beyond our control. These factors include general economic conditions, domestic and worldwide supply and demand, the influence of hedge funds and other investment funds participating in commodity markets, curtailed production from major suppliers due to factors such as the closing or idling of facilities, accidents or equipment breakdowns, repairs or catastrophic events, labor costs or problems, competition, new laws and regulations, import duties, tariffs, energy costs, availability and cost of steel inputs (e.g., ore, scrap, coke and energy), currency exchange rates and other factors described in the immediately following paragraph. This volatility, as well as any increases in raw material costs, could significantly affect our steel costs and adversely impact our financial results. If our suppliers increase the prices of our critical raw materials, we may not have alternative sources of supply. In addition, in an environment of increasing prices for steel and other raw materials, competitive conditions may impact how much of the price increases we can pass on to our customers. To the extent we are unable to pass on future price increases in our raw materials to our customers, our financial results could be adversely affected.

The costs of manufacturing our products and our ability to meet our customers' demands could be negatively impacted if we experience interruptions in deliveries of needed raw materials or supplies. If, for any reason, our supply of flat-rolled steel or other key raw materials, such as aluminum, zinc or helium, or other supplies is curtailed or we are otherwise unable to obtain the quantities we need at competitive prices, our business could suffer and our financial results could be adversely affected. Such interruptions could result from a number of factors, including a shortage of capacity in the supplier base of raw materials, energy or the inputs needed to make steel or other supplies, a failure of suppliers to fulfill their supply or delivery obligations, financial difficulties of suppliers resulting in the closing or idling of supplier facilities, other significant events affecting supplier facilities, significant weather events, those factors listed in the immediately preceding paragraph or other factors beyond our control. Further, the number of suppliers has decreased in recent years due to industry consolidation and the financial difficulties of certain suppliers, and this consolidation may continue.

An increase in the spread between the price of steel and steel scrap prices can have a negative impact on our margins. No matter how efficient, our operations which use steel as a raw material, create some amount of scrap. The expected price of scrap compared to the price of the steel raw material is generally factored into pricing. Generally, as the price of steel increases, the price of scrap increases by a similar amount. Recently, increases in scrap prices have not kept pace with the increases in the price of the steel raw material and when this occurs, it can have a negative impact on our margins.

Inventories

Our businesses could be harmed if we fail to maintain proper inventory levels. We are required to maintain sufficient inventories to accommodate the needs of our customers including, in many cases, short lead times and just-in-time delivery requirements. Although we typically have customer orders in hand prior to placement of our raw material orders for our Steel Processing operating segment, we anticipate and forecast customer demand for each of our operating segments. We purchase raw materials on a regular basis in an effort to maintain our inventory at levels that we believe are sufficient to satisfy the anticipated needs of our customers based upon orders, customer volume expectations, historic buying practices and market conditions. Inventory levels in excess of customer demand may result in the use of higher-priced inventory to fill orders reflecting lower selling prices, if raw material prices have significantly decreased. For example, if steel prices decrease, we could be forced to use higher-priced steel then on hand to complete orders for which the selling price has decreased. These events could adversely affect our financial results. Conversely, if we underestimate demand for our products or if our suppliers fail to supply quality products in a timely manner, we may experience inventory shortages. Inventory shortages could result in unfilled orders, negatively impacting our customer relationships and resulting in lost revenues, which could harm our businesses and adversely affect our financial results.

Suppliers and Customers

The loss of significant volume from our key customers could adversely affect us. A significant loss of, or decrease in, business from any of our key customers could have an adverse effect on our sales and financial results if we cannot obtain replacement business. Also, due to consolidation in the industries we serve, including the construction, automotive and retail industries, our sales may be increasingly sensitive to deterioration in the financial condition of, or other adverse developments with respect to, one or more of our top customers. In addition, certain of our top customers may be able to exert pricing and other influences on us, requiring us to market, deliver and promote our products in a manner that may be more costly to us. We generally do not have long-term contracts with our customers. As a result, although our customers periodically provide notice of their future product needs and purchases, they generally purchase our products on an order-by-order basis, and the relationship, as well as particular orders, can be terminated at any time.

Many of our key industries, such as automotive, oil and gas, construction and heavy mobile equipment, are cyclical in nature. Many of our key industries, such as automotive, oil and gas, construction and heavy mobile equipment, are cyclical and can be impacted by both market demand and raw material supply, particularly with respect to steel. The demand for our products is directly related to, and quickly impacted by, customer demand in our industries, which can change as the result of changes in the general United States or worldwide economies and other factors beyond our control. Adverse changes in demand or pricing can have a negative effect on our businesses.

Significant reductions in sales to any of the Detroit Three automakers, or to our automotive-related customers in general, could have a negative impact on our business. More than half of the net sales of our Steel Processing operating segment and a significant amount of the net sales of certain joint ventures are to automotive-related customers. Although we do sell to the domestic operations of foreign automakers and their suppliers, a significant portion of our automotive sales are to Ford, General Motors, and FCA US (the “Detroit Three automakers”) and their suppliers. A reduction in sales for any of the Detroit Three automakers could negatively impact our business. Since 2011, automobile producers have been taking steps toward complying with new Corporate Average Fuel Economy mileage requirements for new cars and light trucks that they produce. As automobile producers work to produce vehicles in compliance with these standards, they may reduce the amount of steel or begin utilizing alternative materials in cars and trucks to improve fuel economy, thereby reducing demand for steel and resulting in further over-supply of steel in North America. Certain automakers have begun using greater amounts of aluminum and smaller proportions of steel in some new models.

A significant reduction in sales to any of our large heavy mobile equipment customers could have a negative impact on our business. Substantially all of the sales of our Engineered Cabs operating segment are to customers who manufacture heavy mobile equipment. A reduction in sales to any of our major customers in this market could negatively impact our business. A reduction in demand could result from numerous causes including a reduction in overall market demand for heavy mobile equipment, in-sourcing of engineered cabs by our customers, or increased competition.

The closing or relocation of customer facilities could adversely affect us. Our ability to meet delivery requirements and the overall cost of our products as delivered to customer facilities are important competitive factors. If customers close or move their production facilities further away from our manufacturing facilities which can supply them, it could have an adverse effect on our ability to meet competitive conditions, which could result in the loss of sales. Likewise, if customers move their production facilities outside the United States, it could result in the loss of potential sales for us.

Sales conflicts with our customers and/or suppliers may adversely impact us. In some instances, we may compete with one or more of our customers and/or suppliers in pursuing the same business. In addition, in the Engineered Cabs business, our customers often have the option of producing certain cabs in-house instead of having them supplied by us or our competition and to the extent they elect to produce such cabs in-house, it could adversely affect our sales. Such conflicts may strain our relationships with the parties involved, which could adversely affect our future business with them.

The closing or idling of steel manufacturing facilities could have a negative impact on us. As steel makers have reduced their production capacities by closing or idling production lines, the number of facilities from which we can purchase steel, in particular certain specialty steels, has decreased. Accordingly, if delivery from a supplier is disrupted, particularly with respect to certain types of specialty steel, it may be more difficult to obtain an alternate supply than in the past. These closures and disruptions could also have an adverse effect on our suppliers' on-time delivery performance, which could have an adverse effect on our ability to meet our own delivery commitments and may have other adverse effects on our businesses.

The loss of key supplier relationships could adversely affect us. Over the years, our various manufacturing operations have developed relationships with certain steel and other suppliers which have been beneficial to us by providing more assured delivery and a more favorable all-in cost, which includes price and shipping costs. If any of those relationships were disrupted, it could have an adverse effect on delivery times and the overall cost and quality of our raw materials, which could have a negative impact on our businesses. In addition, we do not have long-term contracts with any of our suppliers. If, in the future, we are unable to obtain sufficient amounts of steel and other products at competitive prices and on a timely basis from our traditional suppliers, we may be unable to obtain these products from alternative sources at competitive prices to meet our delivery schedules, which could have a material adverse impact on our results of operations.

Competition

Our businesses are highly competitive, and increased competition could negatively impact our financial results. Generally, the markets in which we conduct business are highly competitive. Our competitors include a variety of both domestic and foreign companies in all major markets. Competition for most of our products is primarily on the basis of price, product quality and our ability to meet delivery requirements. Depending on a variety of factors, including raw material, energy, labor and capital costs, government control of currency exchange rates and government subsidies of foreign steel producers or competitors, our businesses may be materially adversely affected by competitive forces. Competition may also increase if suppliers to or customers of our industries begin to more directly compete with our businesses through new facilities, acquisitions or otherwise. As noted above, we can have conflicts with our customers or suppliers who, in some cases, supply the same products and services as we do. Increased competition could cause us to lose market share, increase expenditures, lower our margins or offer additional services at a higher cost to us, which could adversely impact our financial results.

Material Substitution

If steel prices increase compared to certain substitute materials, the demand for our products could be negatively impacted, which could have an adverse effect on our financial results. In certain applications, steel competes with other materials, such as aluminum (particularly in the automobile industry), cement and wood (particularly in the construction industry), composites, glass and plastic. Prices of all of these materials fluctuate widely, and differences between the prices of these materials and the price of steel may adversely affect demand for our products and/or encourage material substitution, which could adversely affect the prices of and demand for steel products. The higher cost of steel relative to certain other materials may make material substitution more attractive for certain uses.

If increased government mileage standards for automobiles result in the substitution of other materials for steel, demand for our products could be negatively impacted, which could have an adverse effect on our financial results. Due to government requirements that manufacturers increase the fuel efficiency of automobiles, the automobile industry is exploring alternative materials to steel to decrease weight. The substitution of lighter weight material for steel in automobiles could adversely affect prices of and demand for our steel products.

Freight and Energy

Increasing freight and energy costs could increase our operating costs, which could have an adverse effect on our financial results. The availability and cost of freight and energy, such as electricity, natural gas and diesel fuel, are important in the manufacture and transport of our products. Our operations consume substantial amounts of energy, and our operating costs generally increase when energy costs rise. Factors that may affect our energy costs include significant increases in fuel, oil or natural gas prices, unavailability of electrical power or other energy sources due to droughts, hurricanes or other natural causes or due to shortages resulting from insufficient supplies to serve customers, or interruptions in energy supplies due to equipment failure or other causes. During periods of increasing energy and freight costs, we may be unable to fully recover our operating cost increases through price increases without reducing demand for our products. Our financial results could be adversely affected if we are unable to pass all of the increases on to our customers or if we are unable to obtain the necessary freight and energy. Also, increasing energy costs could put a strain on the transportation of our materials and products if the increased costs force certain transporters to close.

We depend on third parties for freight services, and increases in costs or the lack of availability of freight services can adversely affect our operations. We rely primarily on third parties for transportation of our products as well as delivery of our raw materials, primarily by truck. If, due to a lack of freight services, raw materials are not delivered to us in a timely manner, we may be unable to manufacture and deliver our products to meet customer demand. Likewise, if due to a lack of freight service, we cannot deliver our products in a timely manner, it could harm our reputation, negatively affect our customer relationships and have a material adverse effect on our results of operations. In addition, any increase in the cost of the transportation of raw materials or our products, as a result of increases in fuel or labor costs, higher demand for logistics services or otherwise, may adversely affect our results of operations as we may not be able to pass such cost increases on to our customers.

Information Systems

We are subject to information system security risks and systems integration issues that could disrupt our internal operations. We are dependent upon information technology and networks in connection with a variety of business activities including the distribution of information internally and to our customers and suppliers. This information technology is subject to potential damage or interruption from a variety of sources, including, without limitation, computer viruses, security breaches, and natural disasters. We could also be adversely affected by system or network disruptions if new or upgraded business management systems are defective, not installed properly or not properly integrated into operations. In addition, security breaches of our information systems could result in unauthorized disclosure or destruction of confidential or proprietary information and/or loss of the functionality of our systems. Various measures have been implemented to manage our risks related to information system and network disruptions and to prevent attempts to gain unauthorized access to our information systems. While we undertake mitigating activities to counter these risks, a system failure could negatively impact our operations and financial results and cyber attacks could threaten the integrity of our trade secrets and sensitive intellectual property.

Business Disruptions

Disruptions to our business or the business of our customers or suppliers could adversely impact our operations and financial results. Business disruptions, including increased costs for, or interruptions in, the supply of energy or raw materials, resulting from shortages of supply or transportation, severe weather events (such as hurricanes, tsunamis, earthquakes, tornados, floods and blizzards), casualty events (such as explosions, fires or material equipment breakdown), acts of terrorism, pandemic disease, labor disruptions, the idling of facilities due to reduced demand (resulting from a downturn in economic activity or otherwise) or other events (such as required maintenance shutdowns), could cause interruptions to our businesses as well as the operations of our customers and suppliers. While we maintain insurance coverage that can offset some losses relating to certain types of these events, losses from business disruptions could have an adverse effect on our operations and financial results and we could be adversely impacted to the extent any such losses are not covered by insurance or cause some other adverse impact to us.

Foreign Operations

Economic, political and other risks associated with foreign operations could adversely affect our international financial results. Although the substantial majority of our business activity takes place in the United States, we derive a portion of our revenues and earnings from operations in foreign countries, and we are subject to risks associated with doing business internationally. We have wholly-owned facilities in Austria, Poland, Portugal and Turkey and joint venture facilities in Canada, China, France, India, Mexico and the United Kingdom, and are active in exploring other foreign opportunities. The risks of doing business in foreign countries include, among other factors: the potential for adverse changes in the local political climate, in diplomatic relations between foreign countries and the United States or in government policies, laws or regulations; terrorist activity that may cause social disruption; logistical and communications challenges; costs of complying with a variety of laws and regulations; difficulty in staffing and managing geographically diverse operations; deterioration of foreign economic conditions; inflation and fluctuations in interest rates; foreign currency exchange rate fluctuations; foreign exchange restrictions; differing local business practices and cultural considerations; restrictions on imports and exports or sources of supply, including energy and raw materials; changes in duties, quotas, tariffs, taxes or other protectionist measures; and potential issues related to matters covered by the Foreign Corrupt Practices Act, regulations related to import/export controls, the Office of Foreign Assets Control sanctions program, anti-boycott provisions or similar laws. We believe that our business activities outside of the United States involve a higher degree of risk than our domestic activities, and any one or more of these factors could adversely affect our operating results and financial condition. In addition, global and regional economic conditions and the volatility of worldwide capital and credit markets have significantly impacted and may continue to significantly impact our foreign customers and markets. These factors may result in decreased demand in our foreign operations and have had significant negative impacts on our business. Refer to the General Economic or Industry Downturns and Weakness risk factors herein for additional information concerning the impact of the global economic conditions and the volatility of capital and credit markets on our business.

Joint Ventures

A change in the relationship between the members of any of our joint ventures may have an adverse effect on that joint venture. We have been successful in the development and operation of various joint ventures, and our equity in net income from our joint ventures, particularly WAVE, has been important to our financial results. We believe an important element in the success of any joint venture is a solid relationship between the members of that joint venture. If there is a change in ownership, a change of control, a change in management or management philosophy, a change in business strategy or another event with respect to a member of a joint venture that adversely impacts the relationship between the joint venture members, it could adversely impact that joint venture. The other members in our joint ventures may also, as a result of financial or other reasons, be unable or unwilling to fulfill their obligations in the respective joint ventures. In addition, joint ventures necessarily involve special risks. Whether or not we hold a majority interest or maintain operational control in a joint venture, the other members in our joint ventures may have economic or business interests or goals that are inconsistent with our interests or goals. For example, the other members in our joint ventures may exercise veto rights to block actions that we believe to be in our best interests, may take action contrary to our policies or objectives with respect to our investments, or may be unable or unwilling to fulfill their obligations or commitments to the joint venture.

Acquisitions

We may be unable to successfully consummate, manage or integrate our acquisitions or our acquisitions may not meet our expectations. A portion of our growth has occurred through acquisitions. We may from time to time continue to seek attractive opportunities to acquire businesses, enter into joint ventures and make other investments that are complementary to our existing strengths. There are no assurances, however, that any acquisition opportunities will arise or, if they do, that they will be consummated, or that any needed additional financing for such opportunities will be available on satisfactory terms when required. In addition, acquisitions involve risks that the businesses acquired will not perform in accordance with expectations, that business judgments concerning the value, strengths and weaknesses of businesses acquired will prove incorrect, that we may assume unknown liabilities from the seller, that the acquired businesses may not be integrated successfully and that the acquisitions may strain our management resources or divert management's attention from other business concerns. International acquisitions may present unique challenges and increase our exposure to the risks associated with foreign operations and countries. Also, failure to successfully integrate any of our acquisitions may cause significant operating inefficiencies and could adversely affect our operations and financial condition.

Capital Expenditures

Our business requires capital investment and maintenance expenditures, and our capital resources may not be adequate to provide for all of our cash requirements. Many of our operations are capital intensive. For the five-year period ended May 31, 2018, our total capital expenditures, including acquisitions and investment activity, were approximately $857.1 million. Additionally, as of May 31, 2018, we were obligated to make aggregate lease payments of $43.4 million under operating lease agreements. Our businesses also require expenditures for maintenance of our facilities. We currently believe that we have adequate resources (including cash and cash equivalents, cash provided by operating activities, availability under existing credit facilities and unused lines of credit) to meet our cash needs for normal operating costs, capital expenditures, debt repayments, dividend payments, future acquisitions and working capital for our existing businesses. However, given the potential for challenges, uncertainty and volatility in the domestic and global economies and financial markets, there can be no assurance that our capital resources will be adequate to provide for all of our cash requirements.

Litigation

We may be subject to legal proceedings or investigations, the resolution of which could negatively affect our results of operations and liquidity in a particular period. Our results of operations or liquidity in a particular period could be affected by an adverse ruling in any legal proceedings or investigations which may be pending against us or filed against us in the future. We are also subject to a variety of legal and compliance risks, including, without limitation, potential claims relating to product liability, product recall, privacy and information security, health and safety, environmental matters, intellectual property rights, taxes and compliance with U.S. and foreign export laws, anti-bribery laws, competition laws and sales and trading practices. While we believe that we have adopted appropriate risk management and compliance programs to address and reduce these risks, the global and diverse nature of our operations means that these risks will continue to exist and additional legal proceedings and contingencies may arise from time to time. An adverse ruling or settlement or an unfavorable change in laws, rules or regulations could have a material adverse effect on our results of operations or liquidity in a particular period.

Claims and Insurance

Adverse claims experience, to the extent not covered by insurance, may have an adverse effect on our financial results. We self-insure a significant portion of our potential liability for workers' compensation, product liability, cyber liability, product recall, general liability, pollution liability, property liability, automobile liability and employee medical claims. In order to reduce risk, we purchase insurance from highly-rated, licensed insurance carriers that cover most claims in excess of the applicable deductible or retained amounts. We maintain reserves for the estimated cost to resolve open claims as well as an estimate of the cost of claims that have been incurred but not reported. The occurrence of significant claims, our failure to adequately reserve for such claims, a significant cost increase to maintain our insurance or the failure of our insurance providers to perform could have an adverse impact on our financial condition and results of operations.

Accounting and Tax-Related Estimates

We are required to make accounting and tax-related estimates, assumptions and judgments in preparing our consolidated financial statements, and actual results may differ materially from the estimates, assumptions and judgments that we use. In preparing our consolidated financial statements in accordance with accounting principles generally accepted in the United States, we are required to make certain estimates and assumptions that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made because certain information that is used in the preparation of our consolidated financial statements is dependent on future events, or cannot be calculated with a high degree of precision from data available to us. In some cases, these estimates and assumptions are particularly difficult to determine and we must exercise significant judgment. Some of the estimates, assumptions and judgments having the greatest amount of uncertainty, subjectivity and complexity are related to our accounting for bad debts, returns and allowances, inventory, self-insurance reserves, derivatives, stock-based compensation, deferred tax assets and liabilities and asset impairments. Our actual results may differ materially from the estimates, assumptions and judgments that we use, which could have a material adverse effect on our financial condition and results of operations.

Tax Laws and Regulations

Tax increases or changes in tax laws or regulations could adversely affect our financial results. We are subject to tax and related obligations in the jurisdictions in which we operate or do business, including state, local, federal and foreign taxes. The taxing rules of the various jurisdictions in which we operate or do business often are complex and subject to varying interpretations. Tax authorities may challenge tax positions that we take or historically have taken, and may assess taxes where we have not made tax filings or may audit the tax filings we have made and assess additional taxes. Some of these assessments may be substantial, and also may involve the imposition of penalties and interest. In addition, governments could change their existing tax laws, impose new taxes on us or increase the rates at which we are taxed in the future. The payment of substantial additional taxes, penalties or interest resulting from tax assessments, or the imposition of any new taxes, could materially and adversely impact our results of operations and financial condition.

In particular, while the passage of the Tax Cuts and Jobs Act (the “TCJA”) reduced our corporate tax rate, any future changes in tax legislation, including changing tax rates and tax base by U.S. states in implementation of the TCJA, or any guidance that may be issued in implementation of the TCJA and related legislation could have a significant impact, whether positive or negative, on our financial performance. We are continuing to review the components of the TCJA and evaluate its anticipated impact. In addition, the portions of the TCJA that transition the U.S. tax regime from a worldwide system to a modified territorial system provide for U.S. tax on certain types of foreign income may also cause tax increases on our foreign operations.

Principal Shareholder

Our principal shareholder may have the ability to exert significant influence in matters requiring a shareholder vote and could delay, deter or prevent a change in control of Worthington Industries. Pursuant to our charter documents, certain matters such as those in which a person would attempt to acquire or take control of the Company, must be approved by the vote of the holders of common shares representing at least 75% of Worthington Industries’ outstanding voting power. Approximately 30% of our outstanding common shares are beneficially owned, directly or indirectly, by John P. McConnell, our Chairman of the Board and Chief Executive Officer. As a result of his beneficial ownership of our common shares, Mr. McConnell may have the ability to exert significant influence in these matters and other proposals upon which our shareholders may vote.

Key Employees

If we lose senior management or other key employees, our business may be adversely affected. Our ability to successfully operate, grow our business and implement our business strategies is largely dependent on the efforts, abilities and services of our senior management and other key employees. The loss of any of these individuals or our inability to attract, train and retain additional personnel could reduce the competitiveness of our business or otherwise impair our operations or prospects. Our future success will also depend, in part, on our ability to attract and retain qualified personnel, including engineers and other skilled technicians, who have experience in the application of our products and are knowledgeable about our business, markets and products. We cannot assure that we will be able to retain our existing senior management personnel or other key employees or attract additional qualified personnel when needed. The loss of any member of our management team could adversely impact our business and operations. We have not entered into any formal employment contracts with or other stand-alone change in control provisions relative to our executive officers. However, we do have certain change in control provisions in our various compensation plans. We may modify our management structure from time to time or reduce our overall workforce, which may create marketing, operational and other business risks.

Credit Ratings

Ratings agencies may downgrade our credit ratings, which may make it more difficult for us to raise capital and could increase our financing costs. Any downgrade in our credit ratings may make raising capital more difficult, may increase the cost and affect the terms of future borrowings, may affect the terms under which we purchase goods and services and may limit our ability to take advantage of potential business opportunities. In addition, the interest rate on our revolving credit facility is tied to our credit ratings, and any downgrade of our credit ratings would likely result in an increase in the cost of borrowings under our revolving credit facility.

Difficult Financial Markets

Should we be required to raise capital in the future, we could face higher borrowing costs, less available capital, more stringent terms and tighter covenants or, in extreme conditions, an inability to raise capital. Although we currently have significant borrowing availability under our existing credit facilities and should be able to access other capital if needed, should those facilities become unavailable due to covenant or other defaults, or should financial results tighten so that we otherwise cannot raise capital outside our existing facilities, or the terms under which we do so change, we may be negatively impacted. Any adverse change in our access to capital or the terms of our borrowings, including increased costs, could have a negative impact on our financial condition.

Environmental, Health and Safety

We may incur additional costs related to environmental and health and safety matters. Our operations and facilities are subject to a variety of federal, state, local and foreign laws and regulations relating to the protection of the environment and human health and safety. Compliance with these laws and regulations and any changes therein may sometimes involve substantial operating costs and capital expenditures, and any failure to maintain or achieve compliance with these laws and regulations or with the permits required for our operations could result in increased costs and capital expenditures and potentially fines and civil or criminal sanctions, third-party claims for property damage or personal injury, cleanup costs or temporary or permanent discontinuance of operations. Over time, we and predecessor operators of our facilities have generated, used, handled and disposed of hazardous and other regulated wastes. Environmental liabilities, including cleanup obligations, could exist at our facilities or at off-site locations where materials from our operations were disposed of or at facilities we have divested, which could result in future expenditures that cannot be currently quantified and which could reduce our profits and cash flow. We may be held strictly liable for any contamination of these sites, and the amount of any such liability could be material. Under the "joint and several" liability principle of certain environmental laws, we may be held liable for all remediation costs at a particular site, even with respect to contamination for which we are not responsible. In addition, changes in environmental and human health and safety laws, rules, regulations or enforcement policies could have a material adverse effect on our business, financial condition or results of operations.

Legislation and Regulations

Certain proposed legislation and regulations may have an adverse impact on the economy in general and in our markets specifically, which may adversely affect our businesses. Our businesses may be negatively impacted by a variety of new or proposed legislation or regulations. For example, legislation and regulations proposing increases in taxation on, or heightened regulation of, greenhouse gas emissions may result in higher prices for steel, higher prices for utilities required to run our facilities, higher fuel costs for us and our suppliers and distributors and other adverse impacts. To the extent that new legislation or regulations increase our costs, we may not be able to fully pass these costs on to our customers without a resulting decline in sales and adverse impact to our profits. Likewise, to the extent new legislation or regulations would have an adverse effect on the economy, our markets or the ability of domestic businesses to compete against foreign operations, we could also be adversely impacted.

Legislation, regulations or other events which could adversely affect the ability or cost to recover natural gas or oil may negatively affect our business. In recent years, increasing amounts of oil and natural gas have been produced through the hydraulic fracking process throughout the United States and North America. This has resulted in decreasing energy costs, particularly for natural gas and similar energy products. This reduction has helped lower energy costs for U.S. businesses. Also, some of our recent acquisitions supply products which are used by companies engaged in hydraulic fracking. If legislation, regulations or other events limit the ability to recover such fuels through hydraulic fracking or increase the cost thereof, it could have a negative impact on our business, the U.S. economy and U.S. businesses in general, which could result in decreased demand for our products or otherwise negatively impact our business.

The impact of U.S. health care laws could adversely affect our businesses. In the wake of the Patient Protection and Affordable Care Act ("Obamacare"), U.S. health care costs have increased. Many project that there will continue to be significant increases in health care costs which could adversely impact the U.S. economy and U.S. businesses. This could result in a decreased demand for our products, as well as an increase in expenditures for health care costs for our personnel, both of which would negatively impact our profits. Congress has considered amending or replacing Obamacare, but it is uncertain if any changes or a replacement will be affected or what the impact of any such changes or replacement will be.

Changes to global data privacy laws and cross-border transfer requirements could adversely affect our businesses and operations. Our businesses depend on the transfer of data between our affiliated entities, to and from our business partners, and with third-party service provides, which may be subject to global data privacy laws and cross-border transfer restrictions. In particular, the European Union recently implemented the General Data Protection Regulation ("GDPR"), which contains numerous requirements that must be complied with in connection with how we handle personal data related to our European-based operations and employees. While we take steps to comply with these legal requirements, the volatility and changes to the applicability of those laws may impact our ability to effectively transfer data across borders in support of our business operations. Compliance with GDPR, or other regulatory standards, could also increase our cost of doing business and/or force us to change our business practices in a manner adverse to our businesses. In addition, violations of GDPR may result in significant fines, penalties and damage to our brands and businesses which could, individually or in the aggregate, materially harm our businesses and reputation.

Significant changes to the U.S. federal government's trade policies, including new tariffs or the renegotiation or termination of existing trade agreements and/or treaties, may adversely affect our financial performance. The U.S. federal government has indicated its intention to alter U.S. international trade policy and to renegotiate or terminate certain existing trade agreements and treaties with foreign governments. Most recently, the U.S. federal government has initiated re-negotiation of the North American Free Trade Agreement ("NAFTA") with Mexico and Canada. While negotiations among these parties remain ongoing, the U.S. federal government's potential decision to withdraw or materially modify NAFTA or other existing trade agreements or treaties may adversely impact our business, customers and/or suppliers by disrupting trade and commercial transactions and/or adversely affecting the U.S. economy or specific portions thereof.

Additionally, the U.S. federal government has imposed, and is considering imposing additional tariffs on certain foreign goods. For example, in March and again in May of 2018, the U.S. federal government imposed additional tariffs under Section 232 of the Trade Expansion Act of 1962, as amended, on certain steel products imported into the United States. Although the new steel tariffs may benefit portions of our business, these tariffs, as well as country-specific or product-specific exemptions, may also lead to retaliatory actions from foreign governments and/or modifications to the purchasing patterns of our customers that could adversely affect our business or the steel industry as a whole. In particular, certain foreign governments, including Canada, China and Mexico, as well as the European Union, have instituted or are considering imposing tariffs on certain U.S. goods. Restrictions on trade with foreign countries, imposition of customs duties or further modifications to U.S. international trade policy have the potential to disrupt our supply chain or the supply chains of our customers and to adversely impact demand for our products, our costs, customers, suppliers and/or the U.S. economy or certain sectors thereof, potentially leading to negative effects on our business.

Seasonality

Our operations have been subject to seasonal fluctuations that may impact our cash flows for a particular period. Historically our sales are generally strongest in the fourth quarter of the fiscal year when all of our business segments are normally operating at seasonal peaks, and our sales are generally weaker in the third quarter of the fiscal year, primarily due to reduced activity in the building and construction industry as a result of the colder, more inclement weather, as well as customer plant shutdowns in the automotive industry due to holidays. Our quarterly results may also be affected by the timing of large customer orders. Consequently, our cash flow from operations may fluctuate significantly from quarter to quarter. If, as a result of any such fluctuation, our quarterly cash flows were significantly reduced, we may be unable to service our indebtedness or maintain compliance with certain covenants under our credit facilities. A default under any of the documents governing our indebtedness could prevent us from borrowing additional funds, limit our ability to pay interest or principal and allow our lenders to declare the amounts outstanding to be immediately due and payable and to exercise certain other remedies.

Impairment Charges

Weakness or instability in the general economy, our markets or our results of operations could result in future asset impairments, which would reduce our reported earnings and net worth. We review the carrying value of our long-lived assets, excluding purchased goodwill and intangible assets with indefinite lives, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. Impairment testing involves a comparison of the sum of the undiscounted future cash flows of the asset or asset group to its respective carrying amount. If the sum of the undiscounted future cash flows exceeds the carrying amount, then no impairment exists. If the carrying amount exceeds the sum of the undiscounted future cash flows, then a second step is performed to determine the amount of impairment, if any, to be recognized. For long-lived assets other than goodwill, an impairment loss is recognized to the extent that the carrying amount of the asset or asset group exceeds fair value. Goodwill and intangible assets with indefinite lives are tested for impairment annually, during the fourth quarter, or more frequently if events or changes in circumstances indicate that impairment may be present. For goodwill and indefinite lived intangible assets, we test for impairment by completing what is referred to as the “Step 0” analysis which involves evaluating qualitative factors including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance. If our “Step 0” analysis indicates it is more likely than not that the fair value is less than the carrying amount, we would perform a quantitative impairment test. The quantitative analysis compares the fair value of each reporting unit or indefinite-lived intangible asset to the respective carrying amount, and an impairment loss is recognized in our consolidated statements of earnings equivalent to the excess of the carrying amount over the fair value. Fair value is determined based on discounted cash flows or appraised values, as appropriate. Economic conditions remain fragile in some markets and the possibility remains that the domestic or global economies, or certain industry sectors that are key to our sales, may deteriorate. If certain of our business segments are adversely affected by challenging economic and financial conditions, we may be required to record future impairments, which would negatively impact our results of operations.

Item 1B. — Unresolved Staff Comments

None.

Item 2. — Properties.

General

Our principal corporate offices are located in an owned office building in Columbus, Ohio, which also houses the principal corporate offices of our Pressure Cylinders and Engineered Cabs operating segments. Our Steel Processing corporate offices are located in an office building next to the principal corporate offices where we lease office space. We also own three facilities in Columbus, Ohio used for administrative and medical purposes. As of May 31, 2018, excluding our consolidated and unconsolidated joint ventures, we operated 36 manufacturing facilities and 12 warehouses. Altogether, as of May 31, 2018, we owned or leased a total of approximately 10,800,000 square feet of space for our operations, of which approximately 9,600,000 square feet (10,400,000 square feet with warehouses) was devoted to manufacturing, product distribution and sales offices. Major leases contain renewal options for periods of up to 10 years. For information concerning rental obligations, refer to “Item 7. – Management’s Discussion and Analysis of Financial Condition and Results of Operations – Contractual Cash Obligations and Other Commercial Commitments” as well as “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note R – Operating Leases” of this Annual Report on Form 10-K. We believe these facilities are well maintained and in good operating condition, and are sufficient to meet our current needs.

Steel Processing

As of May 31, 2018, our wholly-owned operations within the Steel Processing operating segment operated a total of eight manufacturing facilities, seven of which are owned by the Company, and one which is leased. These facilities are located in Alabama, New York, Indiana, and Ohio (5). As of May 31, 2018, this operating segment also owned one warehouse in Ohio and one warehouse in South Carolina. As noted above, this operating segment's corporate offices are located in Columbus, Ohio.

Pressure Cylinders

As of May 31, 2018, our wholly-owned operations within the Pressure Cylinders operating segment operated a total of 24 manufacturing facilities, 21 of which are owned by the Company and three of which are leased. These facilities are located in Alabama, California, Kansas (2), Kentucky, Maryland, North Carolina, North Dakota, Ohio (6), Oklahoma, Rhode Island, Utah, Wisconsin, Austria, Poland (2), Portugal (2) and Turkey. As of May 31, 2018, Pressure Cylinders also operated two owned warehouses, one each in Austria and Poland, and five leased warehouses, one each in Ohio, Rhode Island, and Kentucky, and two in Portugal. As noted above, this operating segment's corporate offices are located in Columbus, Ohio.

Engineered Cabs

As of May 31, 2018, Engineered Cabs operated four manufacturing facilities, two owned by the Company, which are located in South Dakota and Tennessee, and two leased by the Company, which are located in Indiana and Ohio. As of May 31, 2018, this operating segment also had three leased warehouses, which are located in South Dakota (2) and Tennessee. As noted above, this operating segment's corporate offices are located in Columbus, Ohio.

Other

The Company also owns a manufacturing facility in Wooster, Ohio, that is subject to a lease agreement with our automotive body panels joint venture, ArtiFlex.

Joint Ventures

As outlined below, our consolidated and unconsolidated joint ventures operate a total of 49 manufacturing facilities.

Consolidated

- Spartan owns and operates one manufacturing facility in Monroe, Michigan.
- TWB operates ten manufacturing facilities, one owned facility located in Monroe, Michigan, and nine leased facilities located in Kentucky, Tennessee (2), Canada, and Mexico (5).
- WSP owns and operates three steel processing facilities located in Michigan.

Unconsolidated

- ArtiFlex operates six manufacturing facilities, four of which are owned. These facilities are located in Kentucky (1), Michigan (3), and Ohio (2).
- ClarkDietrich operates 14 manufacturing facilities, one each in Connecticut, Georgia, Hawaii, Illinois, Maryland and Missouri and two each in California, Florida, Ohio and Texas. The two facilities in Ohio are owned. The remaining 12 facilities are leased.
- Samuel owns and operates two steel pickling facilities in Ohio.
- Serviacero Worthington owns and operates three steel processing facilities in Mexico.
- WAVE operates nine manufacturing facilities in five countries, five of which are located in the United States, including one owned facility each in Michigan and Nevada, and one leased facility each in California, Georgia and Maryland. The foreign facilities include one owned facility each in China, France and India, and one leased facility in the United Kingdom. WAVE entered into an agreement to sell its operations in Europe and Asia.
- Zhejiang Nisshin Worthington Precision Specialty Steel Co., Ltd, operates one steel processing facility in Pinghu City, Zhejiang, China.

Item 3. — Legal Proceedings

The Company is involved in various judicial and administrative proceedings as both plaintiff and defendant, arising in the ordinary course of business. The Company does not believe that any such proceedings will have a material adverse effect on its business, financial position, results of operation or cash flows.

Item 4. — Mine Safety Disclosures

Not Applicable

Supplemental Item — Executive Officers of the Registrant

The following table lists the names, positions held and ages of the individuals serving as executive officers of the Registrant as of July 24, 2018.

Name	Age	Position(s) with the Registrant	Present Office Held Since
John P. McConnell	64	Chairman of the Board and Chief Executive Officer; a Director	1996
Mark A. Russell	55	President and Chief Operating Officer	2012
B. Andrew Rose	48	Executive Vice President and Chief Financial Officer	2014
Dale T. Brinkman	65	Vice President-Administration, General Counsel and Secretary	2000
Terrance M. Dyer	51	Vice President-Human Resources	2012
Geoffrey G. Gilmore	46	President-Worthington Cylinder Corporation	2016
John G. Lamprinakos	60	President-The Worthington Steel Company	2016
Catherine M. Lyttle	59	Vice President-Communications and Investor Relations	2009
Richard G. Welch	60	Corporate Controller	2000
Virgil L. Winland	70	Senior Vice President-Manufacturing	2001

John P. McConnell has served as Worthington Industries' Chief Executive Officer since June 1993, as a director of Worthington Industries continuously since 1990, and as Chairman of the Board of Worthington Industries since September 1996. Mr. McConnell serves as the Chair of the Executive Committee of Worthington Industries' Board of Directors. He served in various positions with the Company from 1975 to June 1993.

Mark A. Russell has served as President and Chief Operating Officer of Worthington Industries since August 1, 2012. From February 2007 to July 31, 2012, Mr. Russell served as President of The Worthington Steel Company.

B. Andrew 'Andy' Rose has served as Executive Vice President of Worthington Industries since July 2014 and as Chief Financial Officer of Worthington Industries since December 2008. From December 2008 to July 2014, Mr. Rose also served as Vice President of Worthington Industries. From 2007 to 2008, he served as a senior investment professional with MCG Capital Corporation, a publicly-traded company specializing in debt and equity investments in middle market companies; and from 2002 to 2007, he was a founding partner at Peachtree Equity Partners, L.P., a private equity firm backed by Goldman Sachs.

Dale T. Brinkman has served as Worthington Industries' Vice President-Administration since December 1998 and as Worthington Industries' General Counsel since September 1982. He has been Secretary of Worthington Industries since September 2000 and served as Assistant Secretary of Worthington Industries from September 1982 to September 2000.

Terrance M. Dyer has served as Vice President-Human Resources of Worthington Industries since June 2012. From October 2009 to June 2012, he served as the Vice President-Human Resources for our WAVE joint venture in Malvern, Pennsylvania. Prior to serving as Vice President-Human Resources for WAVE, Mr. Dyer spent five years in various human resources roles of increasing responsibility at Armstrong World Industries, Inc.

Geoffrey G. Gilmore has served as President of Worthington Cylinder Corporation since June 2016. He served as President of The Worthington Steel Company from August 2012 through May 2016. From July 2011 to July 2012, he served as Vice President-Purchasing for Worthington Industries. From April 2010 to July 2011, he served as General Manager of The Worthington Steel Company's Delta, Ohio facility; and from June 2006 to February 2010, he served as Director of Automotive Sales for The Worthington Steel Company. Mr. Gilmore served in various other positions with the Company from 1998 to June 2006.

John G. Lamprinakos has served as President of The Worthington Steel Company since June 2016. He served as President of Worthington Industries Engineered Cabs from June 2013 through May 2016. From December 2004 to July 2013, Mr. Lamprinakos served as President and Chief Executive Officer of our WAVE joint venture in Malvern, Pennsylvania. Before joining WAVE, Mr. Lamprinakos spent 24 years at Worthington Cylinder Corporation, including as President from 2001 to 2003.

Catherine M. Lyttle has served as Vice President-Communications and Investor Relations of Worthington Industries since April 2009. She served as Vice President of Communications of Worthington Industries from January 1999 to April 2009. Ms. Lyttle served as Vice President of Marketing for the Columbus Chamber of Commerce from 1987 to September 1997 and as Vice President of JMAC Hockey from 1997 to 1999.

Richard G. Welch has served as the Corporate Controller of Worthington Industries since March 2000 and prior thereto, he served as Assistant Controller of Worthington Industries from August 1999 to March 2000. He served as Principal Financial Officer of Worthington Industries on an interim basis from September 2008 to December 2008.

Virgil L. Winland has served as Senior Vice President-Manufacturing of Worthington Industries since January 2001. He served in various other positions with the Company from 1971 to January 2001, including as President of Worthington Cylinder Corporation from June 1998 through January 2001.

Executive officers serve at the pleasure of the directors of the Registrant. There are no family relationships among any of the Registrant's executive officers or directors. No arrangements or understandings exist pursuant to which any individual has been, or is to be, selected as an executive officer of the Registrant.

PART II

Item 5. – Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Common Shares Information

The common shares of Worthington Industries, Inc. (“Worthington Industries”) trade on the New York Stock Exchange (“NYSE”) under the symbol "WOR" and are listed in most newspapers as "WorthgtnInd." As of July 24, 2018, Worthington Industries had 5,233 registered shareholders. The following table sets forth (i) the low and high closing prices and the closing price per share for Worthington Industries’ common shares for each quarter of fiscal 2018 and fiscal 2017, and (ii) the cash dividends per share declared on Worthington Industries’ common shares for each quarter of fiscal 2018 and fiscal 2017.

	Market Price Low	High	Closing	Cash Dividends Declared
Fiscal 2018				
Quarter Ended				
August 31, 2017	$41.99	$53.14	$49.96	$ 0.21
November 30, 2017	$39.65	$52.11	$41.60	$ 0.21
February 28, 2018	$41.22	$49.53	$44.24	$ 0.21
May 31, 2018	$39.80	$48.26	$47.95	$ 0.21
Fiscal 2017				
Quarter Ended				
August 31, 2016	$36.26	$45.47	$42.90	$ 0.20
November 30, 2016	$39.75	$62.35	$56.28	$ 0.20
February 28, 2017	$46.12	$58.85	$49.05	$ 0.20
May 31, 2017	$41.18	$51.96	$41.97	$ 0.20

Dividends are declared at the discretion of Worthington Industries’ Board of Directors (the “Board”). The Board declared quarterly dividends of $0.21 per common share in fiscal 2018 and of $0.20 per common share in fiscal 2017. On June 27, 2018, the Board declared a quarterly dividend of $0.23 per common share for the first quarter of fiscal 2019, an increase of $0.02 per share over the dividend declared for the fourth quarter of fiscal 2018. This dividend is payable on September 28, 2018, to shareholders of record on September 14, 2018.

The Board reviews the dividend on a quarterly basis and establishes the dividend rate based upon Worthington Industries’ financial condition, results of operations, capital requirements, current and projected cash flows, business prospects and other factors which the directors may deem relevant. While Worthington Industries has paid a dividend every quarter since becoming a public company in 1968, there is no guarantee this will continue in the future. We currently have no material contractual or regulatory restrictions on the payment of dividends.

Shareholder Return Performance

The following information in this Item 5 of this Annual Report on Form 10-K is not deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission or subject to Regulation 14A or Regulation 14C under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent we specifically incorporate such information into such a filing.

The following graph compares the five-year cumulative return on Worthington Industries' common shares, the S&P Midcap 400 Index and the S&P 1500 Steel Composite Index. The graph assumes that $100 was invested at May 31, 2013, in Worthington Industries' common shares and each index.

	5/13	5/14	5/15	5/16	5/17	5/18
Worthington Industries, Inc.	$100.00	$118.61	$81.70	$115.23	$131.72	$153.26
S&P Midcap 400 Index	$100.00	$118.04	$132.54	$131.98	$154.63	$177.61
S&P 1500 Steel Composite Index	$100.00	$119.49	$107.47	$101.36	$124.36	$163.28

Worthington Industries is a component of the S&P Midcap 400 Index. The S&P 1500 Steel Composite Index, of which Worthington Industries is also a component, is the most specific index relative to the largest line of business of Worthington Industries and its subsidiaries. At May 31, 2018, the S&P 1500 Steel Composite Index included 13 steel related companies from the S&P 500, S&P Midcap 400 and S&P 600 indices: AK Steel Holding Corporation; Allegheny Technologies, Inc.; Carpenter Technology Corporation; Commercial Metals Company; Haynes International, Inc.; Nucor Corporation; Olympic Steel, Inc.; Reliance Steel & Aluminum Co.; Steel Dynamics, Inc.; SunCoke Energy, Inc.; TimkenSteel Corporation; United States Steel Corporation; and Worthington Industries, Inc.

Issuer Purchases of Equity Securities

The following table provides information about purchases made by, or on behalf of, Worthington Industries, Inc. or any "affiliated purchaser" (as defined in Rule 10b – 18(a) (3) under the Exchange Act) of common shares of Worthington Industries, Inc. during each month of the fiscal quarter ended May 31, 2018:

Period	Total Number of Common Shares Purchased	Average Price Paid per Common Share	Total Number of Common Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Common Shares that May Yet Be Purchased Under the Plans or Programs (1)
March 1-31, 2018	-	$ -	-	7,500,000
April 1-30, 2018 (2)	953,270	$ 44.33	950,000	6,550,000
May 1-31, 2018 (2)	53,160	$ 44.36	50,000	6,500,000
Total	1,006,430	$ 44.33	1,000,000	

(1) The number shown represents, as of the end of each period, the maximum number of common shares that could be purchased under the publicly announced repurchase authorization then in effect. On June 26, 2014, Worthington Industries, Inc. announced that on June 25, 2014, the Board had authorized the repurchase of up to 10,000,000 of the outstanding common shares of Worthington Industries, Inc. As of the end of the month of April, 2018 a total of 10,000,000 common shares had been repurchased under this authorization and no further purchases may be made under this authorization. On September 27, 2017, the Board authorized the repurchase of up to an additional 6,828,855 of common shares. The total number of common shares available for repurchase at May 31, 2018 was 6,500,000.

The common shares available for repurchase under the authorization currently in effect may be purchased from time to time, with consideration given to the market price of the common shares, the nature of other investment opportunities, cash flows from operations, general economic conditions and other appropriate factors. Repurchases may be made on the open market or through privately negotiated transactions.

(2) Includes an aggregate of 6,430 common shares surrendered by employees in the period from April 1, 2018 through May 31, 2018 to satisfy tax withholding obligations upon the vesting of restricted common shares. These common shares were not counted against the share repurchase authorizations in effect during fiscal 2018 and discussed in footnote (1) above.

Item 6. – Selected Financial Data

	Fiscal Years Ended May 31,				
(In thousands, except per share amounts)	2018	2017	2016	2015	2014
FINANCIAL RESULTS					
Net sales	$3,581,620	$3,014,108	$2,819,714	$3,384,234	$3,126,426
Cost of goods sold	3,018,763	2,478,203	2,367,121	2,920,701	2,633,907
Gross margin	562,857	535,905	452,593	463,533	492,519
Selling, general and administrative expense	367,460	316,373	297,402	295,920	300,396
Impairment of goodwill and long-lived assets	61,208	-	25,962	100,129	58,246
Restructuring and other expense (income), net	(7,421)	6,411	7,177	6,927	(1,876)
Operating income	141,610	213,121	122,052	60,557	135,753
Miscellaneous income, net	2,996	3,764	11,267	795	16,963
Interest expense	(38,675)	(29,796)	(31,670)	(35,800)	(26,671)
Equity in net income of unconsolidated affiliates	103,139	110,038	114,966	87,476	91,456
Earnings before income taxes	209,070	297,127	216,615	113,028	217,501
Income tax expense	8,220	79,190	58,987	25,772	57,349
Net earnings	200,850	217,937	157,628	87,256	160,152
Net earnings attributable to noncontrolling interests	6,056	13,422	13,913	10,471	8,852
Net earnings attributable to controlling interest	$194,794	$204,515	$143,715	$76,785	$151,300
Earnings per share - diluted:					
Net earnings per share attributable to controlling interest	$3.09	$3.15	$2.22	$1.12	$2.11
Depreciation and amortization	$103,359	$86,793	$84,699	$85,089	$79,730
Capital expenditures (including acquisitions and investments)	358,716	68,386	136,837	210,346	82,855
Cash dividends declared	51,772	51,448	47,949	48,303	41,816
Per common share	$0.84	$0.80	$0.76	$0.72	$0.60
Average common shares outstanding - diluted	63,042	64,874	64,755	68,483	71,664
FINANCIAL POSITION					
Total current assets	$1,241,122	$1,190,969	$915,115	$991,848	$1,198,550
Total current liabilities	646,895	520,783	430,078	524,392	589,635
Working capital	$594,227	$670,186	$485,037	$467,456	$608,915
Total property, plant and equipment, net	$584,970	$570,489	$582,838	$513,190	$498,861
Total assets	2,621,787	2,325,344	2,061,264	2,082,305	2,293,578
Total debt	750,368	578,610	581,004	667,905	663,521
Total shareholders' equity - controlling interest	918,769	951,635	793,371	749,112	850,812
Per share	$15.60	$15.15	$12.89	$11.68	$12.62
Common shares outstanding	58,877	62,802	61,534	64,141	67,408

The acquisition of the assets of AMTROL has been reflected since June 2017. The operations of Worthington Energy Innovations, LLC (“WEI”) have been excluded since the disposal of a 65% stake of the Company in WEI in March 2018. Worthington Specialty Processing has been reflected since March 2016 when the Company obtained effective control of this joint venture. The acquisition of the assets of NetBraze, LLC has been reflected since January 2016. The acquisition of the assets of the CryoScience business of Taylor Wharton has been reflected since December 2015. Our aluminum high-pressure cylinder business has been excluded since its disposal in May 2015. The Advanced

Component Technologies, Inc. business has been excluded since its disposal in January 2015. The acquisition of the assets of Rome Strip Steel Company, Inc. has been reflected since January 2015. The operations of dHybrid Systems, LLC have been reflected since October 2014. The acquisition of the assets of Midstream Equipment Fabrication LLC has been reflected since August 2014. The acquisition of the assets of James Russell Engineering Works, Inc. has been reflected since July 2014. The operations of the tank manufacturing division of Steffes Corporation have been reflected since their acquisition in March 2014. The operations of Worthington Arıtaş Basınçlı Kaplar Sanayi have been reflected since January 2014. Our small and medium steel high pressure industrial gas and acetylene cylinders business in North America has been excluded from consolidated operating results since its disposal in November 2013. TWB Company, L.LC. has been reflected since July 2013 when we acquired an additional 10% ownership interest bringing our total to 55%.

Item 7. – Management's Discussion and Analysis of Financial Condition and Results of Operations

Selected statements contained in this "Item 7. – Management's Discussion and Analysis of Financial Condition and Results of Operations" constitute "forward-looking statements" as that term is used in the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based, in whole or in part, on management's beliefs, estimates, assumptions and currently available information. For a more detailed discussion of what constitutes a forward-looking statement and of some of the factors that could cause actual results to differ materially from such forward-looking statements, please refer to the "Safe Harbor Statement" in the beginning of this Annual Report on Form 10-K and "Part I - Item 1A. - Risk Factors" of this Annual Report on Form 10-K.

Introduction

Worthington Industries, Inc. is a corporation formed under the laws of the State of Ohio (individually, the "Registrant" or "Worthington Industries" or, collectively with the subsidiaries of Worthington Industries, Inc., "we," "our," "Worthington" or the "Company"). Founded in 1955, Worthington is primarily a diversified metals manufacturing company, focused on value-added steel processing and manufactured metal products. Our manufactured metal products include: pressure cylinders for liquefied petroleum gas ("LPG"), compressed natural gas ("CNG"), oxygen, refrigerant and other industrial gas storage; water well tanks for commercial and residential uses; hand torches and filled hand torch cylinders; propane-filled camping cylinders; helium-filled balloon kits; steel and fiberglass tanks and processing equipment primarily for the oil and gas industry; cryogenic pressure vessels for liquefied natural gas ("LNG") and other gas storage applications; engineered cabs and operator stations and cab components; and, through our joint ventures, complete ceiling grid solutions; laser welded blanks; light gauge steel framing for commercial and residential construction; and current and past model automotive service stampings. Our number one goal is to increase shareholder value, which we seek to accomplish by optimizing existing operations, developing and commercializing new products and applications, and pursuing strategic acquisitions and joint ventures.

As of May 31, 2018, excluding our joint ventures, we operated 36 manufacturing facilities worldwide, principally in three operating segments, which correspond with our reportable business segments: Steel Processing, Pressure Cylinders and Engineered Cabs.

We also held equity positions in nine joint ventures, which operated 49 manufacturing facilities worldwide, as of May 31, 2018. Three of these joint ventures are consolidated within Steel Processing with the equity owned by the other joint venture member(s) shown as noncontrolling interests in our consolidated balance sheets, and the other joint venture member(s)' portion of net earnings and other comprehensive income shown as net earnings or comprehensive income attributable to noncontrolling interests in our consolidated statements of earnings and consolidated statements of comprehensive income, respectively. The remaining six of these joint ventures are unconsolidated and accounted for using the equity method.

Overview

The Company delivered overall sales growth of 19% for fiscal 2018 compared to fiscal 2017, driven by the June 2, 2017, acquisition of New AMTROL Holdings, Inc. and its subsidiaries (collectively "AMTROL"). Also contributing to sales growth were higher average direct selling prices in Steel Processing and higher volumes in the consumer and industrial products businesses within Pressure Cylinders. Operating results were mixed, as contributions from AMTROL and near record performance in the consumer and industrial products businesses in Pressure Cylinders were more than offset by an overall decline in earnings at Steel Processing and significant impairment charges related to plans to sell the Company's cryogenics business in Turkey and certain oil & gas asset groups within Pressure Cylinders. Lower direct spreads and lower tolling volumes weighed on Steel Processing's results, offsetting the favorable impact of inventory holding gains resulting from rising steel prices. Equity in net income of unconsolidated affiliates ("equity income") decreased from fiscal 2017 as higher steel prices compressed margins at our Clarkwestern Dietrich Building Systems LLC ("ClarkDietrich") joint venture, and additional allocations resulting from a new cost sharing agreement between its owners were absorbed by WAVE. The enactment of the Tax Cuts and Jobs Act of 2017 (the "TCJA") also had a significant favorable impact on net income. As a result of the TCJA, the Company elected to pass on a portion of the expected cash savings resulting from the lower statutory federal corporate income tax rate in the form of a one-time bonus to non-executive employees, which reduced pre-tax earnings by $5.5 million in the fourth quarter of fiscal 2018. See Recent Business Developments for further discussion of these and other factors affecting the Company's results.

Recent Business Developments

- Effective June 1, 2017, the Company made certain organizational changes impacting the internal reporting and management structure of Worthington Steelpac Systems, LLC ("Packaging Solutions"). As a result of these organizational changes, management responsibilities and internal reporting were realigned, moving Packaging Solutions from the Steel Processing operating segment to the Engineered Cabs operating segment. Previously reported segment results have not been restated to conform to this new presentation and are immaterial for all periods presented.
- On June 2, 2017, the Company acquired AMTROL, a leading manufacturer of pressure cylinders and water system tanks with operations in the U.S. and Europe. The total purchase price was approximately $291.9 million after adjusting for excess working capital, and was funded primarily by cash on hand. The net assets became part of the Pressure Cylinders operating segment at closing, with the well water and expansion tank operations aligning under the consumer products business and the refrigerant, liquid propane and industrial and specialty gas operations aligning under the industrial products business.
- On July 28, 2017, Worthington Industries completed the public offering of $200.0 million aggregate principal amount of senior unsecured notes. The notes bear interest at a rate of 4.300% and mature on August 1, 2032.
- On September 27, 2017, the Board of Directors of Worthington Industries (the "Board") authorized the repurchase of up to an additional 6,828,855 of Worthington Industries' common shares. During fiscal 2018, the Company repurchased a total of 4,375,000 common shares for $204.3 million at an average price of $46.69 per share. The total number of common shares available for repurchase at May 31, 2018 was 6,500,000.
- On November 20, 2017, the Company announced that its Worthington Armstrong Venture ("WAVE") joint venture had agreed to sell its international operations to the Knauf Group, a family-owned manufacturer of building materials headquartered in Germany. The Company expects to receive proceeds of approximately $45 million for its 50% share of the WAVE operations being sold. The transaction is subject to regulatory approvals and other customary closing conditions and is anticipated to close before the end of calendar 2018.
- On December 22, 2017, the TCJA was enacted into law. Among other things, the TCJA lowered the U.S. corporate federal corporate income tax rate from 35% to 21% effective January 1, 2018. Our best estimate of the Company's ongoing effective income tax rate as a result of the tax reform legislation is 24% beginning in fiscal 2019. Results for the full fiscal year ended May 31, 2018 reflected only five months of the lower rate. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note L – Income Taxes" of this Annual Report on Form 10-K.
- On January 16, 2018, the Company amended its accounts receivable securitization facility (the "AR Facility"), reducing the borrowing capacity from $100.0 million to $50.0 million and extending the maturity to January 2019.
- On February 16, 2018, the Company amended its revolving credit facility, extending the maturity by three years to February 2023. Borrowing capacity remained unchanged at $500.0 million.
- During the fourth quarter of fiscal 2018, management committed to plans to sell the Company's cryogenics business in Turkey, Worthington Aritas, and certain underperforming oil & gas equipment assets within Pressure Cylinders. As all of the criteria for classification as assets held for sale were met in both instances, the net assets of each asset group have been presented separately as assets held for sale in our consolidated balance sheets.
- On June 27, 2018, the Board declared a quarterly dividend of $0.23 per share, an increase of $0.02 per share from the previous quarterly rate. The dividend is payable on September 28, 2018 to shareholders of record on September 14, 2018.

Market & Industry Overview

We sell our products and services to a diverse customer base and a broad range of end markets. The breakdown of our net sales by end market for fiscal 2018 and fiscal 2017 is illustrated in the following chart:

The automotive industry is one of the largest consumers of flat-rolled steel, and thus the largest end market for our Steel Processing operating segment. Approximately 59% of the net sales of our Steel Processing operating segment are to the automotive market. North American vehicle production, primarily by Ford, General Motors and FCA US (the "Detroit Three automakers"), has a considerable impact on the activity within this operating segment. The majority of the net sales of three of our unconsolidated joint ventures are also to the automotive end market.

Approximately 13% of the net sales of our Steel Processing operating segment and 41% of the net sales of our Engineered Cabs operating segment are to the construction market. The construction market is also the predominant end market for two of our unconsolidated joint ventures: WAVE and ClarkDietrich. While the market price of steel significantly impacts these businesses, there are other key indicators that are meaningful in analyzing construction market demand, including U.S. gross domestic product ("GDP"), the Dodge Index of construction contracts and, in the case of ClarkDietrich, trends in the relative price of framing lumber and steel.

Substantially all of the net sales of our Pressure Cylinders operating segment, and approximately 28% and 59% of the net sales of our Steel Processing and Engineered Cabs operating segments, respectively, are to other markets such as consumer products, industrial, lawn and garden, agriculture, oil & gas equipment, heavy truck, mining, forestry and appliance. Given the many different products that make up these net sales and the wide variety of end markets, it is very difficult to detail the key market indicators that drive this portion of our business. However, we believe that the trend in U.S. GDP growth is a good economic indicator for analyzing the demand of these end markets.

We use the following information to monitor our costs and demand in our major end markets:

	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
U.S. GDP (% growth year-over-year) [1]	2.5 %	1.6 %	1.9 %	0.9 %	-0.3 %
Hot-Rolled Steel ($ per ton) [2]	$687	$593	$437	$94	$156
Detroit Three Auto Build (000's vehicles) [3]	8,577	9,216	9,296	(639)	(80)
No. America Auto Build (000's vehicles) [3]	16,996	18,329	18,181	(1,333)	148
Zinc ($ per pound) [4]	$1.42	$1.13	$0.80	$0.29	$0.33
Natural Gas ($ per mcf) [5]	$2.89	$3.01	$2.31	$(0.12)	$0.70
On-Highway Diesel Fuel Prices ($ per gallon) [6]	$2.87	$2.58	$2.40	$0.29	$0.18
Crude Oil - WTI ($ per barrel) [6]	$56.75	$48.80	$42.67	$7.95	$6.13

[1] 2017/2016 figures based on revised actuals [2] CRU Hot-Rolled Index; period average [3] IHS Global [4] LME Zinc; period average [5] NYMEX Henry Hub Natural Gas; period average [6] Energy Information Administration; period

average

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U.S. GDP growth rate trends are generally indicative of the strength in demand and, in many cases, pricing for our products. A year-over-year increase in U.S. GDP growth rates is indicative of a stronger economy, which generally increases demand and pricing for our products. Conversely, decreasing U.S. GDP growth rates generally indicate a weaker economy. Changes in U.S. GDP growth rates can also signal changes in conversion costs related to production and in selling, general and administrative ("SG&A") expense.

The market price of hot-rolled steel is one of the most significant factors impacting our selling prices and operating results. When steel prices fall, we typically have higher-priced material flowing through cost of goods sold, while selling prices compress to what the market will bear, negatively impacting our results. On the other hand, in a rising price environment, our results are generally favorably impacted, as lower-priced material purchased in previous periods flows through cost of goods sold, while our selling prices increase at a faster pace to cover current replacement costs. The rapid rise in steel prices experienced during the fourth quarter of fiscal 2018 is expected to continue to result in inventory holding gains in the first quarter of fiscal 2019.

The following table presents the average quarterly market price per ton of hot-rolled steel during fiscal 2018, fiscal 2017 and fiscal 2016:

	Fiscal Year		
(Dollars per ton [1])	2018	2017	2016
1st Quarter	$604	$617	$461
2nd Quarter	$608	$511	$419
3rd Quarter	$674	$608	$381
4th Quarter	$860	$636	$486
Annual Avg.	$687	$593	$437

[1] CRU Hot-Rolled Index

No single customer accounted for more than 10% of our consolidated net sales during fiscal 2018. While our automotive business is largely driven by the production schedules of the Detroit Three automakers, our customer base is much broader and includes other domestic manufacturers and many of their suppliers. During fiscal 2018, vehicle production for the Detroit Three automakers was off 7% from the record levels achieved in fiscal 2017, while North American vehicle production as a whole was also down 7%.

Certain other commodities, such as zinc, natural gas and diesel fuel, represent a significant portion of our cost of goods sold, both directly through our plant operations and indirectly through transportation and freight expense.

Results of Operations

Fiscal 2018 Compared to Fiscal 2017

Consolidated Operations

The following table presents consolidated operating results for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2018	% of Net sales	2017	% of Net sales	Increase/ (Decrease)
Net sales	$3,581.6	100.0%	$3,014.1	100.0%	$ 567.5
Cost of goods sold	3,018.7	84.3 %	2,478.2	82.2 %	540.5
Gross margin	562.9	15.7 %	535.9	17.8 %	27.0
Selling, general and administrative expense	367.5	10.3 %	316.4	10.5 %	51.1
Impairment of goodwill and long-lived assets	61.2	1.7 %	-	0.0 %	61.2
Restructuring and other expense (income), net	(7.4)	-0.2 %	6.4	0.2 %	(13.8)
Operating income	141.6	4.0 %	213.1	7.1 %	(71.5)
Miscellaneous income	3.1	0.1 %	3.8	0.1 %	(0.7)
Interest expense	(38.7)	-1.1 %	(29.8)	-1.0 %	8.9
Equity in net income of unconsolidated affiliates	103.1	2.9 %	110.0	3.6 %	(6.9)
Income tax expense	(8.2)	-0.2 %	(79.2)	-2.6 %	(71.0)
Net earnings	200.9	5.6 %	217.9	7.2 %	(17.0)
Net earnings attributable to noncontrolling interests	6.1	0.2 %	13.4	0.4 %	(7.3)
Net earnings attributable to controlling interest	$194.8	5.4 %	$204.5	6.8 %	$ (9.7)
Equity income by unconsolidated affiliate					
WAVE	$77.5		$78.3		$ (0.8)
ClarkDietrich	9.8		17.3		(7.5)
Serviacero Worthington	8.8		7.2		1.6
ArtiFlex	4.9		7.0		(2.1)
Other	2.1		0.2		1.9
Total	$103.1		$110.0		$ (6.9)

Fiscal 2018 net earnings attributable to controlling interest decreased $9.7 million from fiscal 2017. Net sales and operating highlights were as follows:

- Net sales increased $567.5 million over fiscal 2017. The AMTROL acquisition was the largest driver of the increase, contributing net sales of $265.2 million. The remaining increase in net sales was driven by higher average direct selling prices in Steel Processing and higher overall volumes in Pressure Cylinders, partially offset by lower tolling volume at certain consolidated joint ventures.
- Gross margin increased $27.0 million over fiscal 2017. Pressure Cylinders drove the increase, up $65.1 million, on contributions from AMTROL and higher volumes in the consumer and industrial products businesses. Lower direct spreads and lower tolling volume at Steel Processing partially offset the overall increase in gross margin.
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SG&A expense increased $51.1 million over fiscal 2017. The increase was driven primarily by the AMTROL acquisition, which added $36.9 million to SG&A expense in fiscal 2018. Overall, SG&A expense was 10.3% of consolidated net sales in fiscal 2018 compared to 10.5% in the prior fiscal year.

- Impairment charges totaled $61.2 million, of which $52.9 million related to plans to sell the Company's cryogenics business in Turkey, Worthington Aritas, and certain underperforming oil & gas equipment asset groups within Pressure Cylinders. For additional information regarding these impairment charges, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note C – Goodwill and Other Long-Lived Assets" of this Annual Report on Form 10-K.

- Restructuring and other income, net totaled $7.4 million in fiscal 2018 driven by a net gain of $10.6 million related to the sale of the legacy real estate of the Company's former stainless steel business, Precision Specialty Metals, Inc. ("PSM"), partially offset by severance expense of $2.4 million at Pressure Cylinders related to corporate management and other positions at AMTROL that were eliminated. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note D – Restructuring and Other Expense (Income), Net" of this Annual Report on Form 10-K.
- Interest expense increased $8.9 million over fiscal 2017. The increase was primarily due to the issuance of $200.0 million of aggregate principal amount of senior unsecured notes due August 1, 2032. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note G – Debt and Receivables Securitization" of this Annual Report on Form 10-K.
- Equity income decreased $6.9 million from fiscal 2017 to $103.1 million. The decrease was driven by lower contributions from ClarkDietrich, down $7.5 million as rising steel prices compressed margins. WAVE was down slightly despite strong volumes as a new cost-sharing agreement between the joint venture and its owners resulted in $7.6 million of additional allocations. This run rate is expected to decline 20%-30% upon the sale of the WAVE international business which is expected to close before the end of calendar 2018. We received distributions of $89.8 million from our unconsolidated affiliates during fiscal 2018. For additional financial information regarding our unconsolidated affiliates, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note B – Investments in Unconsolidated Affiliates" of this Annual Report on Form 10-K.
- Income tax expense decreased $71.0 million from fiscal 2017 due to (i) a $38.2 million net income tax benefit from re-measuring the deferred tax balances as a result of the enactment of the TCJA, (ii) a $22.1 million tax benefit associated with the impairment charges recorded for Worthington Aritas, (iii) a lower statutory federal corporate income tax rate, and (iv) lower earnings before income taxes. These favorable reductions were partially offset by a $12.2 million lower benefit in the current year associated with share-based payment awards, and a $6.9 million one-time mandatory deemed repatriation tax associated with the TCJA. The TCJA lowered the U.S. corporate income tax rate from 35% to 21% effective January 1, 2018, which due to the Company's fiscal year, lowered the Company's fiscal 2018 U.S. federal blended statutory corporate income tax rate to approximately 29.2%. However, due to the factors mentioned above, the fiscal 2018 income tax expense reflects an effective tax rate attributable to controlling interest of 4.0% vs. 27.9% in fiscal 2017. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note L – Income Taxes" of this Annual Report on Form 10-K.

Segment Operations

Steel Processing

The following table presents a summary of operating results for our Steel Processing operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2018	% of Net sales	2017	% of Net sales	Increase/ (Decrease)
Net sales	$2,252.8	100.0%	$2,074.8	100.0%	$ 178.0
Cost of goods sold	1,968.3	87.4 %	1,757.0	84.7 %	211.3
Gross margin	284.5	12.6 %	317.8	15.3 %	(33.3)
Selling, general and administrative expense	141.9	6.3 %	145.5	7.0 %	(3.6)
Restructuring and other expense (income), net	(10.1)	-0.4 %	1.8	0.1 %	(11.9)
Operating income	$152.7	6.8 %	$170.5	8.2 %	$ (17.8)

Material cost	$1,585.5	$1,364.5	$ 221.0
Tons shipped (in thousands)	3,820	4,070	(250)

Net sales and operating highlights were as follows:

- Net sales increased $178.0 million over fiscal 2017 driven by higher average direct selling prices, which increased net sales by $147.6 million, and higher direct volume, partially offset by lower tolling volume due to declines at certain consolidated joint ventures. The mix of direct tons versus toll tons processed was 57% to 43% compared to 52% to 48% in fiscal 2017.
- Operating income decreased $17.8 million from fiscal 2017 as the combined impact of lower direct spreads and lower tolling volume more than offset the improvement in the volume of direct shipments. Unfavorable changes in product mix also contributed to the margin compression. A net restructuring gain of $10.6 million related to the sale of the real estate of the Company's former stainless steel business, PSM, partially offset the overall decline in operating income.

Pressure Cylinders

The following table presents a summary of operating results for our Pressure Cylinders operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2018	% of Net sales	2017	% of Net sales	Increase/ (Decrease)
Net sales	$1,206.2	100.0%	$829.8	100.0%	$376.4
Cost of goods sold	936.7	77.7 %	625.5	75.4 %	311.2
Gross margin	269.5	22.3 %	204.3	24.6 %	65.2
Selling, general and administrative expense	189.8	15.7 %	146.8	17.7 %	43.0
Impairment of goodwill and long-lived assets	53.9	4.5 %	-	0.0 %	53.9
Restructuring and other expense, net	2.4	0.2 %	3.4	0.4 %	(1.0)
Operating income	$23.4	1.9 %	$54.1	6.5 %	$(30.7)
Material cost	$534.9		$338.4		$196.5
Net sales by principal class of products:					
Consumer products	$471.2		$315.0		$156.2
Industrial products	526.0		341.2		184.8
Alternative fuels	109.6		111.3		(1.7)
Oil & gas equipment	99.4		62.3		37.1
Total Pressure Cylinders	$1,206.2		$829.8		$376.4
Units shipped by principal class of products:					
Consumer products	72,641,033		60,665,420		11,975,613
Industrial products	17,058,745		10,155,628		6,903,117
Alternative fuels	471,653		512,257		(40,604)
Oil & gas equipment	2,703		2,308		395
Total Pressure Cylinders	90,174,134		71,335,613		18,838,521

Net sales and operating highlights were as follows:

- Net sales increased $376.4 million over fiscal 2017. AMTROL was the largest driver of the increase, contributing net sales of $265.2 million. Strong demand in the legacy consumer and industrial products businesses and improvement at the oil & gas equipment business accounted for the balance of the increase. Sales activity related to AMTROL is split between consumer products and industrial products in the table above.
- Operating income decreased $30.7 million from fiscal 2017 as impairment charges negatively impacted results by $53.9 million. Contributions from AMTROL and improvements in the legacy consumer and industrial products businesses helped drive the increase in operating income, excluding the impairment charges. Improvement in the oil & gas equipment business was largely offset by a decline in the alternative fuels business. Fiscal 2018 impairment charges related primarily to plans to sell the Company’s cryogenics

business in Turkey and certain underperforming asset groups in the oil & gas equipment business. For additional information regarding these impairment charges, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note C – Goodwill and Other Long-Lived Assets" of this Annual Report on Form 10-K.

Engineered Cabs

The following table presents a summary of operating results for our Engineered Cabs operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(In millions)	2018	% of Net sales	2017	% of Net sales	Increase/ (Decrease)
Net sales	$116.6	100.0%	$101.4	100.0%	$ 15.2
Cost of goods sold	110.9	95.1 %	92.5	91.2 %	18.4
Gross margin	5.7	4.9 %	8.9	8.8 %	(3.2)
Selling, general and administrative expense	17.1	14.7 %	15.4	15.2 %	1.7
Restructuring and other expense (income), net	(0.1)	-0.1 %	1.2	1.2 %	(1.3)
Operating loss	$(11.3)	-9.7 %	$(7.7)	-7.6 %	$ (3.6)
Material cost	$55.2		$46.1		$ 9.1

Net sales and operating highlights were as follows:

- Net sales increased $15.2 million over fiscal 2017 on higher volume.
- Operating loss of $11.3 million was $3.6 million higher than fiscal 2017 due to higher labor and conversion costs and unfavorable margins.

Other

The Other category includes certain income and expense items not allocated to our operating segments, including costs associated with our captive insurance company. The Other category also includes the results of our former Worthington Energy Innovations ("WEI") operating segment, on a historical basis, through March 31, 2018. The following table presents a summary of operating results for the Other category for the periods indicated:

	Fiscal Year Ended May 31,				
(In millions)	2018	% of Net sales	2017	% of Net sales	Increase/ (Decrease)
Net sales	$6.0	100.0 %	$8.0	100.0%	$ (2.0)
Cost of goods sold	2.8	46.7 %	3.2	40.0 %	(0.4)
Gross margin	3.2	53.3 %	4.8	60.0 %	(1.6)
Selling, general and administrative expense	18.7	311.7 %	8.6	107.5%	10.1
Impairment of goodwill and long-lived assets	7.3	121.7 %	-	0.0 %	7.3
Restructuring and other expense	0.4	6.7 %	-	0.0 %	0.4

Operating loss	$(23.2)	-386.7%	$(3.8)	-47.5 %	$	(19.4)

Net sales and operating highlights were as follows:

- Net sales decreased $2.0 million from fiscal 2017 due to the sale of WEI effective March 31, 2018.
- Operating loss of $23.2 million in fiscal 2018 was driven by lower earnings at WEI due to a $7.3 million charge for the impairment of goodwill and certain intangible assets and higher SG&A expense driven by non-allocated corporate costs. For additional information regarding the impairment charge, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note C – Goodwill and Other Long-Lived Assets" of this Annual Report on Form 10-K.

Fiscal 2017 Compared to Fiscal 2016

Consolidated Operations

The following table presents consolidated operating results for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2017	% of Net sales	2016	% of Net sales	Increase/ (Decrease)
Net sales	$3,014.1	100.0%	$2,819.7	100.0%	$ 194.4
Cost of goods sold	2,478.2	82.2 %	2,367.1	83.9 %	111.1
Gross margin	535.9	17.8 %	452.6	16.1 %	83.3
Selling, general and administrative expense	316.4	10.5 %	297.4	10.5 %	19.0
Impairment of long-lived assets	-	0.0 %	26.0	0.9 %	(26.0)
Restructuring and other expense, net	6.4	0.2 %	7.2	0.3 %	(0.8)
Operating income	213.1	7.1 %	122.0	4.3 %	91.1
Miscellaneous income	3.8	0.1 %	11.3	0.4 %	(7.5)
Interest expense	(29.8)	-1.0 %	(31.7)	-1.1 %	(1.9)
Equity in net income of unconsolidated affiliates	110.0	3.6 %	115.0	4.1 %	(5.0)
Income tax expense	(79.2)	-2.6 %	(59.0)	-2.1 %	20.2
Net earnings	217.9	7.2 %	157.6	5.6 %	60.3
Net earnings attributable to noncontrolling interests	13.4	0.4 %	13.9	0.5 %	(0.5)
Net earnings attributable to controlling interest	$204.5	6.8 %	$143.7	5.1 %	$ 60.8
Equity income by unconsolidated affiliate					
WAVE	$78.3		$82.7		$ (4.4)
ClarkDietrich	17.3		14.6		2.7
Serviacero Worthington	7.2		6.3		0.9
ArtiFlex	7.0		10.3		(3.3)
WSP	-		1.7		(1.7)
Other	0.2		(0.6)		0.8
Total	$110.0		$115.0		$ (5.0)

Fiscal 2017 net earnings attributable to controlling interest increased $60.8 million over fiscal 2016. Net sales and operating highlights were as follows:

- Net sales increased $194.4 million from fiscal 2016. The increase was driven by higher average direct selling prices in Steel Processing, which favorably impacted net sales by $156.9 million, partially offset by lower volume in Engineered Cabs and certain Pressure Cylinder businesses. Net sales were also favorably impacted by the consolidation of the WSP joint venture effective March 1, 2016.
- Gross margin increased $83.3 million over fiscal 2016. The increase was driven primarily by higher gross margin at Steel Processing, up $68.9 million on an improved pricing spread and contributions from the consolidation of WSP. The remaining improvement in gross margin was driven by increases in Pressure Cylinders, where strength in consumer products was partially offset by weakness in industrial products and oil & gas equipment.
-

SG&A expense increased $19.0 million over fiscal 2016. The consolidation of WSP and the impact of prior year acquisitions in Pressure Cylinders accounted for $8.1 million of the increase. The remaining increase in SG&A expense was driven primarily by higher profit sharing and bonus expense and an increase in accrued legal costs, which were up a combined $14.2 million.

- Impairment charges of $26.0 million in fiscal 2016 consisted of $23.0 million related to the impairment of certain long-lived assets in our oil & gas equipment business and $3.0 million related to the September 30, 2015 closure of the Engineered Cabs facility in Florence, South Carolina. For additional information regarding these impairment charges, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note C – Goodwill and Other Long-Lived Assets" of this Annual Report on Form 10-K.

- Restructuring and other expense totaled $6.4 million in fiscal 2017. A total of $3.4 million related to activities within Pressure Cylinders, including $2.0 million of costs incurred in connection with a plant consolidation at our cryogenics business in Turkey. The remaining activity related to ongoing costs associated with previously completed plant closures in Steel Processing and Engineered Cabs.
- Miscellaneous income decreased $7.5 million from fiscal 2016. The decrease was primarily the result of a $6.9 million pre-tax gain related to the consolidation of WSP in fiscal 2016. The gain represents the difference between the fair value of the Company's previously-held ownership in WSP and its carrying value at the acquisition date.
- Interest expense decreased $1.9 million from fiscal 2016. The decrease was driven primarily by lower average short-term borrowings. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note G – Debt and Receivables Securitization" of this Annual Report on Form 10-K.
- Equity income decreased $5.0 million from fiscal 2016 to $110.0 million. The decrease was driven by lower contributions from WAVE due to accelerated customer purchases in the fourth quarter of fiscal 2016, lower offload business at ArtiFlex and the impact of the consolidation of WSP. The impact of these items was partially offset by higher contributions from ClarkDietrich, up $2.7 million despite a $4.5 million favorable impact related to legal settlements in fiscal 2016. We received distributions of $102.0 million from our unconsolidated affiliates during fiscal 2017. For additional financial information regarding our unconsolidated affiliates, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note B – Investments in Unconsolidated Affiliates" of this Annual Report on Form 10-K.
- Income tax expense increased $20.2 million over fiscal 2016 due to higher earnings, partially offset by a $13.1 million increase in tax benefits associated with share-based payment awards. Fiscal 2017 income tax expense reflected an effective tax rate attributable to controlling interest of 27.9% vs. 29.1% in fiscal 2016. The 27.9% rate is lower than the federal statutory income tax rate of 35% primarily as a result of tax benefits associated with share-based payment awards, benefits from the qualified production activities deduction, and lower tax rates on foreign income, offset partially by state and local income taxes. For additional information, refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note L – Income Taxes" of this Annual Report on Form 10-K.

Segment Operations

Steel Processing

The following table presents a summary of operating results for our Steel Processing operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2017	% of Net sales	2016	% of Net sales	Increase/ (Decrease)
Net sales	$2,074.8	100.0%	$1,843.7	100.0%	$ 231.1
Cost of goods sold	1,757.0	84.7 %	1,594.8	86.5 %	162.2
Gross margin	317.8	15.3 %	248.9	13.5 %	68.9
Selling, general and administrative expense	145.5	7.0 %	132.8	7.2 %	12.7
Restructuring and other expense	1.8	0.1 %	4.1	0.2 %	(2.3)
Operating income	$170.5	8.2 %	$112.0	6.1 %	$ 58.5
Material cost	$1,364.5		$1,245.1		$ 119.4
Tons shipped (in thousands)	4,071		3,523		548

Net sales and operating highlights were as follows:

- Net sales increased $231.1 million over fiscal 2016 driven primarily by higher average direct selling prices, which increased net sales by $156.9 million. The remaining increase was due to higher overall volume, including $49.6 million related to the consolidation of the WSP joint venture. The mix of direct versus toll tons processed was 52% to 48% compared to 58% to 42% in fiscal 2016. The change in mix was driven primarily by the consolidation of WSP.
- Operating income increased $58.5 million over fiscal 2016 on higher gross margin, partially offset by higher SG&A expense. Favorable pricing spreads, which benefited from significant inventory holding gains in fiscal 2017 compared to inventory holding losses in fiscal 2016, and higher direct volume increased gross margin by $71.6 million and $10.8 million, respectively. This was partially offset by higher manufacturing expenses driven by higher profit sharing and bonus expense, an increase in healthcare costs and production/start-up costs associated with new production lines at our TWB joint venture. SG&A expense increased $12.7 million on higher allocated corporate costs, the consolidation of WSP, and higher profit sharing and bonus expense. Restructuring and other expense in fiscal 2017 consisted primarily of costs related to the closure of our stainless steel business.

Pressure Cylinders

The following table presents a summary of operating results for our Pressure Cylinders operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(Dollars in millions)	2017	% of Net sales	2016	% of Net sales	Increase/ (Decrease)
Net sales	$829.8	100.0%	$844.9	100.0%	$(15.1)
Cost of goods sold	625.5	75.4 %	649.3	76.8 %	(23.8)
Gross margin	204.3	24.6 %	195.6	23.2 %	8.7
Selling, general and administrative expense	146.8	17.7 %	143.8	17.0 %	3.0
Impairment of long-lived assets	-	0.0 %	23.0	2.7 %	(23.0)
Restructuring and other expense, net	3.4	0.4 %	0.4	0.0 %	3.0
Operating income	$54.1	6.5 %	$28.4	3.4 %	$25.7
Material cost	$338.4		$359.8		$(21.4)
Net sales by principal class of products:					
Consumer products	$315.0		$293.2		$21.8
Industrial products	341.2		362.7		(21.5)
Alternative fuels	111.3		98.7		12.6
Oil & gas equipment	62.3		90.3		(28.0)
Total Pressure Cylinders	$829.8		$844.9		$(15.1)
Units shipped by principal class of products:					
Consumer products	60,665,420		61,631,907		(966,487)
Industrial products	10,155,628		10,484,892		(329,264)
Alternative fuels	512,257		422,630		89,627
Oil & gas equipment	2,308		3,668		(1,360)
Total Pressure Cylinders	71,335,613		72,543,097		(1,207,484)

Net sales and operating highlights were as follows:

- Net sales decreased $15.1 million from fiscal 2016. The decrease was driven by lower volumes in the oil & gas equipment and industrial products businesses, partially offset by improvements in consumer products and alternative fuels. Softness in the oil & gas equipment market led to a 31%, or $28.0 million, decline in net sales. However, this market began to show signs of improvement in the fourth quarter of fiscal 2017. Net sales in the industrial products business were down $21.5 million on lower volume due to weaker demand for our refillable propane cylinder products, as well as softness for high pressure cylinders in Europe.

- Operating income increased $25.7 million over fiscal 2016 on lower impairment and restructuring charges, which declines a combined $20.0 million. The remaining increase was driven by improvements in the consumer products business, up on the combined impact of higher pricing spreads and an improved product mix, partially offset by declines in the industrial products and oil & gas equipment businesses.

Engineered Cabs

The following table presents a summary of operating results for our Engineered Cabs operating segment for the periods indicated:

	Fiscal Year Ended May 31,				
(In millions)	2017	% of Net sales	2016	% of Net sales	Increase/ (Decrease)
Net sales	$101.4	100.0%	$121.9	100.0%	$ (20.5)
Cost of goods sold	92.5	91.2 %	116.2	95.3 %	(23.7)
Gross margin	8.9	8.8 %	5.7	4.7 %	3.2
Selling, general and administrative expense	15.4	15.2 %	18.4	15.1 %	(3.0)
Impairment of long-lived assets	-	0.0 %	3.0	2.5 %	(3.0)
Restructuring and other expense	1.2	1.2 %	3.6	3.0 %	(2.4)
Operating loss	$(7.7)	-7.6 %	$(19.3)	-15.8 %	$ 11.6
Material cost	$46.1		$57.3		$ (11.2)

Net sales and operating highlights were as follows:

- Net sales decreased $20.5 million from fiscal 2016 on lower volumes due to declines in market demand.
- Operating loss improved $11.6 million to $7.7 million on lower impairment and restructuring charges and the impact of cost reduction efforts, which led to margin improvements and a 16% decline in SG&A expense.

Other

The Other category included the WEI operating segment for both fiscal 2017 and fiscal 2016. Certain income and expense items not allocated to our operating segments are also included in the Other category, including costs associated with our captive insurance company. The Other category also includes the results of our former Construction Services operating segment, on a historical basis, through May 31, 2016. The following table presents a summary of operating results for the Other category for the periods indicated:

	Fiscal Year Ended May 31,				
(In millions)	2017	% of Net sales	2016	% of Net sales	Increase/ (Decrease)
Net sales	$8.0	100.0%	$9.2	100.0%	$ (1.2)
Cost of goods sold	3.2	40.0 %	6.9	75.0 %	(3.7)
Gross margin	4.8	60.0 %	2.3	25.0 %	2.5
Selling, general and administrative expense	8.6	107.5%	2.2	23.9 %	6.4

Restructuring and other income	-	0.0 %	(0.9)	-9.8 %	(0.9)	
Operating income (loss)	$(3.8)	-47.5 %	$1.0	10.9 %	$ (4.8)	

Net sales and operating highlights were as follows:

- Net sales decreased $1.2 million from fiscal 2016. The decrease was driven by the exit of the Construction Services business, partially offset by improvement at WEI.
- Operating loss of $3.8 million in fiscal 2017 was driven primarily by higher SG&A expense, up $6.4 million due primarily to higher profit sharing and bonus expense and an increase in accrued legal costs. Gross margin increased $2.5 million on higher contributions from WEI and a lower loss in the Construction Services business, which ceased operations during the first quarter of fiscal 2017.

Liquidity and Capital Resources

During fiscal 2018, we generated $281.3 million of cash from operating activities, spent $285.0 million to acquire AMTROL, net of cash acquired, and invested $76.1 million in property, plant and equipment. Additionally, we repurchased 4,375,000 of our common shares for $204.3 million, repaid $32.1 million in short-term borrowings and long-term debt and paid $51.4 million of dividends on our common shares. The following table summarizes our consolidated cash flows for each period shown:

	Fiscal Year Ended May 31,		
(in millions)	2018	2017	2016
Net cash provided by operating activities	$281.3	$335.7	$413.3
Net cash used by investing activities	(337.4)	(63.0)	(127.0)
Net cash used by financing activities	(100.0)	(78.8)	(233.2)
Increase (decrease) in cash and cash equivalents	(156.1)	193.9	53.1
Cash and cash equivalents at beginning of period	278.1	84.2	31.1
Cash and cash equivalents at end of period	$122.0	$278.1	$84.2

We believe we have access to adequate resources to meet our needs for normal operating costs, capital expenditures, debt repayments, dividend payments and working capital for our existing businesses. These resources include cash and cash equivalents, cash provided by operating activities and unused lines of credit. We also believe we have adequate access to the financial markets to allow us to be in a position to sell long-term debt or equity securities. We routinely monitor current operational requirements, financial market conditions, and credit relationships and we may choose to seek additional capital by issuing new debt and/or equity securities to strengthen our liquidity or capital structure. However, should we seek such additional capital, there can be no assurance that we would be able to obtain such additional capital on terms acceptable to us, if at all, and such additional equity or debt financing could dilute the interests of our existing shareholders and/or increase our interest costs.

Operating Activities

Our business is cyclical and cash flows from operating activities may fluctuate during the year and from year to year due to economic and industry conditions. We rely on cash and short-term borrowings to meet cyclical increases in working capital needs. These needs generally rise during periods of increased economic activity or increasing raw material prices, requiring higher levels of inventory and accounts receivable. During economic slowdowns or periods of decreasing raw material costs, working capital needs generally decrease as a result of the reduction of inventories and accounts receivable.

Net cash provided by operating activities was $281.3 million during fiscal 2018 compared to $335.7 million in fiscal 2017. The $54.4 million decrease in net cash provided by operating activities in fiscal 2018 was driven primarily by higher working capital resulting from higher average steel prices and lower distributions from unconsolidated joint ventures. Net cash provided by operating activities in fiscal 2017 was affected by an increase in working capital levels as a result of higher average steel prices, partially offset by higher net earnings as compared to fiscal 2016.

Investing Activities

Net cash used by investing activities was $337.4 million during fiscal 2018 compared to $63.0 million in fiscal 2017, an increase of $274.4 million. The increase was driven primarily by the acquisition of AMTROL supplemented by higher capital expenditures, which increased $7.7 million. During fiscal 2018, we spent a combined $285.0 million, net of cash acquired, to acquire AMTROL. Net cash used by investing activities in fiscal 2017 was affected by the absence of acquisitions and lower capital expenditures.

Capital expenditures reflect cash used for investment in property, plant and equipment and are presented below by reportable business segment (this information excludes cash flows related to acquisition and divestiture activity):

	Fiscal Year Ended May 31,		
(in millions)	2018	2017	2016
Steel Processing	$32.0	$40.8	$42.1
Pressure Cylinders	32.7	24.8	29.9
Engineered Cabs	2.1	0.8	6.9
Other	9.3	2.0	18.1
Total capital expenditures	$76.1	$68.4	$97.0

Capital expenditures were $76.1 million in fiscal 2018. Significant capital expenditures in fiscal 2018 included $7.2 million for ongoing corporate renovations, $5.6 million to expand capacity at TWB, our consolidated laser welding joint venture, $5.1 million for capital improvements at Spartan, our steel coating joint venture, and $4.4 million for a new building for our oil & gas equipment business in Skiatook, Oklahoma to replace an expiring leased facility.

Investment activities are largely discretionary and future investment activities could be reduced significantly, or eliminated, as economic conditions warrant. We assess acquisition opportunities as they arise, and any such opportunities may require additional financing. There can be no assurance, however, that any such opportunities will arise, that any such acquisition opportunities will be consummated, or that any needed additional financing will be available on satisfactory terms when required.

Financing Activities

Net cash used by financing activities was $100.0 million in fiscal 2018 compared to $78.8 million in fiscal 2017. During fiscal 2018, we paid $204.3 million to repurchase 4,375,000 of our common shares, reduced long-term debt by $31.1 million, and paid dividends of $51.4 million on our common shares. In fiscal 2017, there were no share repurchases and repayments of short-term borrowings were lower.

Long-term debt – Our senior unsecured long-term debt is rated “investment grade” by both Moody’s Investors Service, Inc. and Standard & Poor’s Ratings Group. We typically use the net proceeds from long-term debt for acquisitions, refinancing of outstanding debt, capital expenditures and general corporate purposes. As of May 31, 2018, we were in compliance with our long-term financial debt covenants. Our long-term debt agreements do not include ratings triggers or material adverse change provisions.

On July 28, 2017, we issued $200.0 million aggregate principal amount of senior unsecured notes due August 1, 2032. The 2032 Notes bear interest at a rate of 4.300%. The 2032 Notes were sold to the public at 99.901% of the principal amount thereof, to yield 4.309% to maturity. We used a portion of the net proceeds from the offering to repay amounts then outstanding under our multi-year revolving credit facility and amounts then outstanding under our revolving trade accounts receivable securitization facility.

On September 26, 2014, Worthington Aritas, executed a five-year term loan denominated in Euros. On May 29, 2018, the Company paid off this term loan and settled the interest rate swap in anticipation of the planned sale of Worthington Aritas.

Short-term borrowings – Our short-term debt agreements do not include ratings triggers or material adverse change provisions. We were in compliance with our short-term financial debt covenants at May 31, 2018.

We maintain a $500.0 million multi-year revolving credit facility (the “Credit Facility”) with a group of lenders that matures in February 2023. Borrowings under the Credit Facility have maturities of up to one year and have been classified as short-term borrowings within current liabilities on our consolidated balance sheets. We have the option to borrow at rates equal to an applicable margin over the LIBOR, Prime or Overnight Bank Funding rate. The applicable margin is determined by our credit rating. There were no borrowings outstanding under the Credit Facility at May 31, 2018. As discussed in “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note F – Guarantees,” we provided $14.5 million in letters of credit for third-party beneficiaries as of May 31, 2018. While not drawn against at May 31, 2018, $13.2 million of these letters of credit were issued against availability under the Credit Facility, leaving $486.8 million available at May 31, 2018.

We maintain a $50.0 million revolving trade accounts receivable securitization facility (the “AR Facility”) that matures in January 2019. Pursuant to the terms of the AR Facility, certain of our subsidiaries sell their accounts receivable without recourse, on a revolving basis, to Worthington Receivables Corporation (“WRC”), a wholly-owned, consolidated, bankruptcy-remote subsidiary. In turn, WRC may sell without recourse, on a revolving basis, up to $50.0 million of undivided ownership interests in this pool of accounts receivable to a third-party bank. We retain an undivided interest in this pool and are subject to risk of loss based on the collectability of the receivables from this retained interest. Because the amount eligible to be sold excludes receivables more than 90 days past due, receivables offset by an allowance for doubtful accounts due to bankruptcy or other cause, concentrations over certain limits with specific customers and certain reserve amounts, we believe additional risk of loss is minimal. As of May 31, 2018, no undivided ownership interests in this pool of accounts receivable had been sold.

Common shares – We declared dividends at a quarterly rate of $0.21 per common share for each quarter of fiscal 2018 compared to $0.20 per common share for each quarter of fiscal 2017. Dividends paid on our common shares totaled $51.4 million and $50.7 million during fiscal 2018 and fiscal 2017, respectively. On June 27, 2018, the Board declared a quarterly dividend of $0.23 per common share. The dividend is payable on September 28, 2018 to shareholders of record on September 14, 2018.

On June 25, 2014, the Board authorized the repurchase of up to 10,000,000 of the outstanding common shares of Worthington Industries Inc. and on September 27, 2017, the Board authorized the repurchase of up to an additional 6,828,855 of common shares. The total number of common shares available to repurchase at May 31, 2018 is 6,500,000.

During fiscal 2018, we repurchased 4,375,000 common shares having an aggregate cost of $204.3 million. No common shares were repurchased during fiscal 2017 due to the anticipated investment opportunity in AMTROL.

The common shares available for repurchase under the authorization currently in effect may be purchased from time to time, with consideration given to the market price of the common shares, the nature of other investment opportunities, cash flows from operations, general economic conditions and other relevant factors. Repurchases may be made on the open market or through privately negotiated transactions.

Dividend Policy

We currently have no material contractual or regulatory restrictions on the payment of dividends. Dividends are declared at the discretion of the Board. The Board reviews the dividend quarterly and establishes the dividend rate based upon our financial condition, results of operations, capital requirements, current and projected cash flows, business prospects and other relevant factors. While we have paid a dividend every quarter since becoming a public company in 1968, there is no guarantee that payments of dividends will continue in the future.

Contractual Cash Obligations and Other Commercial Commitments

The following table summarizes our contractual cash obligations as of May 31, 2018. Certain of these contractual obligations are reflected in our consolidated balance sheet, while others are disclosed as future obligations in accordance with U.S. GAAP.

	Payments Due by Period				
(in millions)	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	After 5 Years
Long-term debt	$754.7	$1.5	$151.7	$1.2	$600.3
Interest expense on long-term debt	263.8	36.6	62.3	62.0	102.9
Operating leases	43.4	11.4	15.6	10.9	5.5
Royalty obligations	10.0	2.0	4.0	4.0	-
Total contractual cash obligations	$1,071.9	$51.5	$233.6	$78.1	$708.7

Interest expense on long-term debt is computed by using the rates of interest on each tranche of long-term debt, including impacts of the related interest rate hedges. Royalty obligations relate to a trademark license agreement executed in connection with the acquisition of Coleman Cylinders in fiscal 2012. Due to the uncertainty regarding the timing of future cash outflows associated with the unfunded portion of our pension benefit obligations and our unrecognized tax benefits, we are unable to make a reliable estimate of the periods of cash settlement and have not included these amounts in the contractual cash obligations table above. For additional information, refer to “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note K – Employee Pension Plans” and “Note L – Income Taxes” of this Annual Report on Form 10-K.

The following table summarizes our other commercial commitments as of May 31, 2018. These commercial commitments are not reflected in our consolidated balance sheet.

	Commitment Expiration by Period				
(in millions)	Total	Less Than 1 Year	1 - 3 Years	4 - 5 Years	After 5 Years
Guarantees	$8.4	$8.4	$ -	$ -	$ -
Standby letters of credit	14.5	14.5	-	-	-
Total commercial commitments	$22.9	$22.9	$ -	$ -	$ -

Off-Balance Sheet Arrangements

We do not have guarantees or other off-balance sheet financing arrangements that we believe are reasonably likely to have a material current or future effect on our consolidated financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources. However, as of May 31, 2018, we were party to an operating lease for an aircraft in which we have guaranteed a residual value at the termination of the lease. The maximum obligation under the terms of this guarantee was approximately $8.4 million at May 31, 2018. Based on current facts and circumstances, we have estimated the likelihood of payment pursuant to this guarantee is not probable and, therefore, no amount has been recognized in our consolidated financial statements.

Recently Issued Accounting Standards

In May 2014, new accounting guidance was issued that replaces most existing revenue recognition guidance under U.S. GAAP. The new guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. Subsequently, additional guidance was issued on several areas including guidance intended to improve the operability and understandability of the implementation of principal versus agent considerations and clarifications on the identification of performance obligations and implementation of guidance related to licensing. The new guidance is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The guidance permits the use of either the retrospective or cumulative effect transition method. The Company adopted this guidance on June 1, 2018 using the cumulative effect transition method. Based on our evaluation, which included a review of significant contracts with customers across all revenue streams, it resulted in a change in timing of revenue recognition for the toll processing and oil & gas equipment revenue streams and did not have a material impact on our consolidated financial position or results of operations. As a result of the adoption of this guidance, the Company will make additional disclosures related to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers as required by the new guidance.

In February 2016, amended accounting guidance was issued that replaces most existing lease accounting guidance under U.S. GAAP. Among other changes, the amended guidance requires that lease assets and liabilities be recognized on the balance sheet by lessees for those leases classified as operating leases under previous guidance. The amended guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, and the change is to be applied using a modified retrospective approach as of the beginning of the earliest period presented. We are in the process of evaluating the effect this guidance will have on our consolidated financial position, results of operations and cash flows, and we have not determined the effect of the amended guidance on our ongoing financial reporting. As of May 31, 2018, we have operating leases with $43.4 million of future minimum lease payments.

In June 2016, amended accounting guidance was issued related to the measurement of credit losses on financial instruments. The amended guidance changes the impairment model for most financial assets to require measurement and recognition of expected credit losses for financial assets held. The amended guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. We are in the process of evaluating the effect this guidance will have on our consolidated financial position and results of operations; however, we do not expect the amended guidance to have a material impact on our ongoing financial reporting.

In October 2016, amended accounting guidance was issued that requires the income tax consequences of an intra-entity transfer of an asset other than inventory to be recognized when the transfer occurs. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and is to be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position, results of operations and cash flows.

In November 2016, amended accounting guidance was issued that requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated cash flows.

In March 2017, amended accounting guidance was issued that requires an employer to report the service cost component of pension and postretirement benefits in the same line item as other current employee compensation costs. Additionally, other components of net benefit cost are to be presented in the income statement separately from the service cost component and outside of income from operations. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and is to be applied retrospectively for the presentation in the income statement and prospectively on and after the effective date for the capitalization of service cost. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position, results of operations and cash flows.

In May 2017, amended accounting guidance was issued to provide guidance about which changes to the terms or conditions of a share-based payment award require application of modification accounting. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position or results of operations.

In August 2017, amended accounting guidance was issued that modifies hedge accounting by making more hedge strategies eligible for hedge accounting, amending presentation and disclosure requirements, and changing how companies assess effectiveness. The intent is to simplify application of hedge accounting and increase transparency of information about an entity's risk management activities. The amended guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. It is to be applied using a modified retrospective transition approach for cash flow and net investment hedges existing at the date of adoption. The presentation and disclosure guidance is only required prospectively. Early adoption is permitted. We are in the process of evaluating the effect this guidance will have on our consolidated financial position and results of operations, and have not determined the effect on our ongoing financial reporting.

Environmental

We do not believe that compliance with environmental laws has or will have a material effect on our capital expenditures, future results of operations or financial position or competitive position.

Inflation

The effects of inflation on our operations were not significant during the periods presented in the consolidated financial statements.

Critical Accounting Policies

The discussion and analysis of our consolidated financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. We continually evaluate our estimates, including those related to our valuation of receivables, inventories, intangible assets, accrued liabilities, income and other tax accruals and contingencies and litigation. We base our estimates on historical experience and various other assumptions that we believe to be reasonable under the circumstances. These results form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Critical accounting policies are defined as those that reflect our significant judgments and uncertainties that could potentially result in materially different results under different assumptions and conditions. Although actual results historically have not deviated significantly from those determined using our estimates, as discussed below, our consolidated financial position or results of operations could be materially different if we were to report under different conditions or to use different assumptions in the application of such policies. We believe the following accounting policies are the most critical to us, as these are the primary areas where financial information is subject to our estimates, assumptions and judgment in the preparation of our consolidated financial statements.

Revenue Recognition: We recognize revenue upon transfer of title and risk of loss, or in the case of toll processing revenue, upon delivery of the goods, provided evidence of an arrangement exists, pricing is fixed and determinable and the ability to collect is probable. In circumstances where the collection of payment is not probable at the time of shipment, we defer recognition of revenue until payment is collected. We provide for returns and allowances based on historical experience and current customer activities. We also provide for customer rebates and sales discounts based on specific agreements and recent and anticipated levels of customer activity.

Receivables: In order to ensure that our receivables are properly valued, we utilize two contra-receivable accounts: returns and allowances and allowance for doubtful accounts. Returns and allowances are used to record estimates of returns or other allowances resulting from quality, delivery, discounts or other issues affecting the value of receivables. This account is estimated based on historical trends and current market conditions, with the offset to net sales.

The allowance for doubtful accounts is used to record the estimated risk of loss related to the customers' inability to pay. This allowance is maintained at a level that we consider appropriate based on factors that affect collectability, such as the financial health of our customers, historical trends of charge-offs and recoveries and current economic and market conditions. As we monitor our receivables, we identify customers that may have payment problems, and we adjust the allowance accordingly, with the offset to SG&A expense. Account balances are charged off against the allowance when recovery is considered remote.

We review our receivables on an ongoing basis to ensure that they are properly valued and collectible. Based on this review, we believe our related reserves are appropriate. The allowance for doubtful accounts decreased approximately $2.8 million during fiscal 2018 to $0.6 million.

While we believe our allowance for doubtful accounts is adequate, changes in economic conditions, the financial health of customers and bankruptcy settlements could impact our future earnings. If the economic environment and market conditions deteriorate, particularly in the automotive and construction end markets where our exposure is greatest, additional bad debt reserves may be required.

Inventory Valuation: Inventories are valued at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method for all inventories. The assessment of net realizable value requires the use of significant estimates to determine cost to complete, normal profit margin and the ultimate selling price of the inventory. We believe our inventories were valued appropriately as of May 31, 2018 and May 31, 2017.

Impairment of Definite-Lived Long-Lived Assets: We review the carrying value of our long-lived assets, including intangible assets with finite useful lives, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. Impairment testing involves a comparison of the sum of the undiscounted future cash flows of the asset or asset group to its respective carrying amount. If the sum of the undiscounted future cash flows exceeds the carrying amount, then no impairment exists. If the carrying amount exceeds the sum of the undiscounted future cash flows, then a second step is performed to determine the amount of impairment, if any, to be recognized. An impairment loss is recognized to the extent that the carrying amount of the asset or asset group exceeds its fair value.

Fiscal 2018: During the fourth quarter of fiscal 2018, management committed to plans to sell the Company's cryogenics business in Turkey, Worthington Aritas, and certain underperforming oil & gas equipment assets within Pressure Cylinders. As all of the criteria for classification as assets held for sale were met in both instances, the net assets of each asset group have been presented separately as assets held for sale in our consolidated balance sheets. In accordance with the applicable accounting guidance, the net assets were recorded at the lower of net book value or fair value less costs to sell. The book value of Worthington Aritas exceeded its estimated fair market value of $9.0 million, resulting in an impairment charge of $42.4 million. The book value of the oil & gas equipment asset group also exceeded its estimated fair market value of $21.0 million resulting in an impairment charge of $10.5 million.

During the second quarter of fiscal 2018, the Company determined that indicators of impairment were present with regard to the goodwill and intangible assets of the former WEI reporting unit. As a result, these assets were written down to their estimated fair value resulting in an impairment charge of $7.3 million. During the second quarter of fiscal 2018, the Company also identified the presence of impairment indicators with regard to vacant land at the oil & gas equipment facility in Bremen, Ohio, resulting in an impairment charge of $1.0 million to write the vacant land down to its estimated fair value.

Fiscal 2016: Due to the decline in oil prices and resulting reduced demand for products, management determined that an impairment indicator was present for the long-lived assets in the oil & gas equipment business within Pressure Cylinders. The Company had tested the five asset groups in its oil & gas equipment business for impairment during the fourth quarter of fiscal 2015 and again in the first quarter of fiscal 2016. In each of these tests, the Company's estimate of the undiscounted future cash flows for each asset group indicated that the carrying amounts were expected to be recovered as of those measurement dates.

During the second quarter of fiscal 2016, the continued decline of oil prices further reduced the demand for oil & gas equipment products, causing a significant decrease in the long-term cash flow projections of that business. Based on these revised cash flow projections, the Company determined that long-lived assets of two of the facilities with a combined carrying amount of $59.9 million were impaired and wrote them down to their estimated fair value of $36.9 million, resulting in an impairment charge of $23.0 million. Fair value was based on expected future cash flows using Level 3 inputs under Accounting Standard Codification ("ASC") 820. The cash flows are those expected to be generated by market participants, discounted at an appropriate rate for the risks inherent in those cash flow projections, or 13%.

During the first quarter of fiscal 2016, management finalized its plan to close the Engineered Cabs facility in Florence, South Carolina and transfer the majority of the business to the Engineered Cabs facility in Greeneville, Tennessee. Under the plan, certain machinery and equipment was transferred to the Greeneville facility to support higher volume requirements. Management reevaluated the recoverability of the remaining assets and determined that long-lived assets with a carrying value of $4.1 million were impaired. As a result, these long-lived assets were written down to their estimated fair value of $1.1 million resulting in an impairment charge of $3.0 million during the first quarter of fiscal 2016. The Company ceased production at the Florence facility on September 30, 2015

Impairment of Indefinite-Lived Long-Lived Assets: Goodwill and intangible assets with indefinite lives are not amortized, but instead are tested for impairment annually, during the fourth quarter, or more frequently if events or changes in circumstances indicate that impairment may be present. Application of goodwill impairment testing involves judgment, including but not limited to, the identification of reporting units and estimation of the fair value of each reporting unit. A reporting unit is defined as an operating segment or one level below an operating segment. With the exception of Pressure Cylinders, we test goodwill at the operating segment level as we have determined that the characteristics of the reporting units within each operating segment are similar and allow for their aggregation in accordance with the applicable accounting guidance. For our Pressure Cylinders operating segment, the oil & gas equipment business has been treated as a separate reporting unit since the second quarter of fiscal 2016.

For goodwill and indefinite lived intangible assets, we test for impairment by completing what is referred to as the "Step 0" analysis which involves evaluating qualitative factors including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance. If our "Step 0" analysis indicates it is more likely than not that the fair value is less than the carrying amount, we would perform a quantitative impairment test. The quantitative analysis compares the fair value of each reporting unit or indefinite-lived intangible asset to the respective carrying amount, and an impairment loss is recognized in our consolidated statements of earnings equivalent to the excess of the carrying amount over the fair value. Fair value is determined based on discounted cash flows or appraised values, as appropriate.

As a result of the fiscal 2016 impairment of the oil & gas equipment assets noted above, the Company also performed an impairment review of the goodwill of the Pressure Cylinders reporting unit during the second quarter of fiscal 2016. The Company first assessed the reporting unit structure and determined that it was no longer appropriate to aggregate the oil & gas equipment component with the rest of Pressure Cylinders for purposes of goodwill impairment testing. This determination was driven by changes in the economic characteristics of the oil & gas equipment business as a result of sustained low oil prices, which indicated that the risk profile and prospects for growth and profitability were no longer similar to the other components of Pressure Cylinders. In accordance with the applicable accounting guidance, the Company allocated a portion of Pressure Cylinders goodwill totaling $26.0 million to the oil & gas equipment reporting unit using a relative fair value approach. A subsequent comparison of the fair values of the oil & gas equipment and the Pressure Cylinders reporting units, determined using discounted cash flows, to their respective carrying values indicated that a step 2 calculation to quantify a potential impairment was not required. The key assumptions that drive the fair value calculations are projected cash flows and the discount rate. Prior to the allocation of goodwill, the Company tested the goodwill of the old Pressure Cylinders reporting unit for impairment and determined that fair value exceeded carrying value by a significant amount.

We performed our annual impairment evaluation of goodwill and other indefinite-lived intangible assets during the fourth quarter of fiscal 2018 and concluded that the fair value of each reporting unit substantially exceeded its carrying value; therefore, no additional impairment charges were recognized. For additional information on impairment, refer to "Item 8. Financial Statements – Notes to Consolidated Financial Statements – NOTE C – Goodwill and Other Long-Lived Assets" of this Annual Report on Form 10-K.

Accounting for Derivatives and Other Contracts at Fair Value: We use derivatives in the normal course of business to manage our exposure to fluctuations in commodity prices, foreign currency exchange rates and interest rates. Fair values for these contracts are based upon valuation methodologies deemed appropriate in the circumstances; however, the use of different assumptions could affect the estimated fair values.

Stock-Based Compensation: All share-based awards, including those to employees and non-employee directors, are recorded as expense in the consolidated statements of earnings based on the fair value of each award at the date of grant. We estimate forfeitures at the date of grant based on historic experience.

Income Taxes: In accordance with the authoritative accounting guidance, we account for income taxes using the asset and liability method. The asset and liability method requires the recognition of deferred tax assets and liabilities for expected future tax consequences of temporary differences that currently exist between the tax basis and financial reporting basis of our assets and liabilities. In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some, or a portion, of the deferred tax assets will not be realized. We provide a valuation allowance for deferred income tax assets when it is more likely than not that a portion of such deferred income tax assets will not be realized.

In accordance with accounting literature related to uncertainty in income taxes, tax benefits from uncertain tax positions that are recognized in the financial statements are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

We have reserves for taxes and associated interest and penalties that may become payable in future years as a result of audits by taxing authorities. It is our policy to record these in income tax expense. While we believe the positions taken on previously filed tax returns are appropriate, we have established the tax and interest reserves in recognition that various taxing authorities may challenge our positions. These reserves are analyzed periodically, and adjustments are made as events occur to warrant adjustment to the reserves, such as lapsing of applicable statutes of limitations, conclusion of tax audits, additional exposure based on current calculations, identification of new issues, and release of administrative guidance or court decisions affecting a particular tax issue.

Self-Insurance Reserves: We are largely self-insured with respect to workers' compensation, general and automobile liability, property damage, employee medical claims and other potential losses. In order to reduce risk and better manage our overall loss exposure, we purchase stop-loss insurance that covers individual claims in excess of the deductible amounts. We maintain reserves for the estimated cost to settle open claims, which includes estimates of legal costs expected to be incurred, as well as an estimate of the cost of claims that have been incurred but not reported. These estimates are based on actuarial valuations that take into consideration the historical average claim volume, the average cost for settled claims, current trends in claim costs, changes in our business and workforce, general economic factors and other assumptions believed to be reasonable under the circumstances. The estimated reserves for these liabilities could be affected if future occurrences and claims differ from assumptions used and historical trends. Facility consolidations, a focus on safety initiatives and an emphasis on property loss prevention and product quality have resulted in an improvement in our loss history and the related assumptions used to analyze many of the current self-insurance reserves. We will continue to review these reserves on a quarterly basis, or more frequently if factors dictate a more frequent review is warranted.

The critical accounting policies discussed herein are not intended to be a comprehensive list of all of our accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP, with a lesser need for our judgment in their application. There are also areas in which our judgment in selecting an available alternative would not produce a materially different result.

Item 7A. – Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, we are exposed to various market risks. We continually monitor these risks and regularly develop appropriate strategies to manage them. Accordingly, from time to time, we may enter into certain financial and commodity-based derivative instruments. These instruments are used solely to mitigate market exposure and are not used for trading or speculative purposes. Refer to "Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note P – Derivative Instruments and Hedging Activities" of this Annual Report on Form 10-K for additional information.

Interest Rate Risk

We are exposed to changes in interest rates primarily as a result of our borrowing and investing activities to maintain liquidity and fund operations. The nature and amount of our long-term and short-term debt can be expected to fluctuate as a result of business requirements, market conditions and other factors. We manage exposures to interest rates using a mix of fixed and variable rate debt. We use interest rate swap instruments to manage our exposure to interest rate movements.

We entered into an interest rate swap in June 2017, in anticipation of the issuance of $200.0 million principal amount of our 2032 Notes. Refer to “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note G – Debt and Receivables Securitization” of this Annual Report on Form 10-K for additional information regarding the 2032 Notes. The interest rate swap had a notional amount of $150.0 million to hedge the risk of changes in the semi-annual interest rate payments attributable to changes in the benchmark interest rate during the several days leading up to the issuance of the 2032 Notes. Upon pricing of the 2032 Notes, the derivative instrument was settled resulting in a gain of approximately $3.1 million, which was reflected in accumulated other comprehensive loss in our consolidated statements of equity and will be recognized in earnings, as a decrease to interest expense, over the life of the related 2032 Notes.

We entered into an interest rate swap in October 2014 to hedge changes in cash flows attributable to changes in EURIBOR associated with a five-year, euro-denominated term loan entered into by Worthington Aritas. Under the terms of the swap, we received interest at a variable rate equal to the three-month EURIBOR plus 1.5% and paid interest at a fixed rate of 2.015%. The interest rate swap had a notional amount equal to 60% of the borrowings outstanding under the facility. On May 29, 2018, in anticipation of the planned sale of our cryogenics business in Turkey, the term loan was paid off and the derivative instrument settled for an immaterial loss.

We entered into an interest rate swap in March 2014, in anticipation of the issuance of $250.0 million principal amount of our 2026 Notes. Refer to “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note G – Debt and Receivables Securitization” of this Annual Report on Form 10-K for additional information regarding the 2026 Notes. The interest rate swap had a notional amount of $150.0 million to hedge the risk of changes in the semi-annual interest payments attributable to changes in the benchmark interest rate during the several days leading up to the issuance of the 12-year fixed-rate debt. Upon pricing of the 2026 Notes, the derivative instrument was settled and resulted in a loss of approximately $3.1 million, a significant portion of which was reflected within accumulated other comprehensive loss in our consolidated statements of equity and will be recognized in earnings, as an increase to interest expense, over the life of the related 2026 Notes.

We entered into a U.S. Treasury Rate-based treasury lock in April 2010, in anticipation of the issuance of $150.0 million principal amount of our 2020 Notes. Refer to “Item 8. – Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Note G – Debt and Receivables Securitization” of this Annual Report on Form 10-K for additional information regarding the 2020 Notes. The treasury lock had a notional amount of $150.0 million to hedge the risk of changes in the semi-annual interest payments attributable to changes in the benchmark interest rate during the several days leading up to the issuance of the 10-year fixed-rate debt. Upon pricing of the 2020 Notes, the derivative instrument was settled and resulted in a loss of approximately $1.4 million, which has been reflected within accumulated other comprehensive loss in our consolidated statements of equity. That balance is being recognized in earnings, as an increase to interest expense, over the life of the related 2020 Notes.

Foreign Currency Exchange Risk

The translation of foreign currencies into U.S. dollars subjects us to exposure related to fluctuating foreign currency exchange rates. Derivative instruments are not used to manage this risk; however, we do make use of forward contracts to manage exposure to certain intercompany loans with our foreign affiliates as well as exposure to transactions denominated in a currency other than the related foreign affiliate's local currency. Such forward contracts limit exposure to both favorable and unfavorable currency exchange rate fluctuations. At May 31, 2018, the difference between the contract and book value of these forward contracts was not material to our consolidated financial position, results of operations or cash flows. A 10% change in the exchange rate to the U.S. dollar forward rate is not expected to materially impact our consolidated financial position, results of operations or cash flows. A sensitivity analysis of changes in the U.S. dollar on these foreign currency-denominated contracts indicates that if the U.S. dollar uniformly weakened by 10% against all of these foreign currency exposures, the fair value of these forward contracts would not be materially impacted. Any resulting changes in fair value would be offset by changes in the underlying hedged balance sheet position. A sensitivity analysis of changes in the foreign currency exchange rates of our foreign locations indicates that a 10% increase in those rates would not have materially impacted our net results. The sensitivity analysis assumes a uniform shift in all foreign currency exchange rates. The assumption that foreign currency exchange rates change in uniformity may overstate the impact of changing exchange rates on assets and liabilities denominated in a foreign currency.

Commodity Price Risk

We are exposed to market risk for price fluctuations on purchases of steel, natural gas, zinc and other raw materials as well as our utility requirements. We attempt to negotiate the best prices for commodities and to competitively price products and services to reflect the fluctuations in market prices. Derivative financial instruments have been used to manage a portion of our exposure to fluctuations in the cost of certain commodities, including steel, natural gas, zinc and other raw materials. These contracts covered periods commensurate with known or expected exposures throughout fiscal 2019. The derivative instruments were executed with highly rated financial institutions. No credit loss is anticipated. No derivatives are held for trading purposes.

A sensitivity analysis of changes in the price of hedged commodities indicates that a 10% decline in the market prices of steel, zinc, natural gas or any combination of these would not have a material impact to the value of our hedges or our reported results.

The fair values of our outstanding derivative positions as of May 31, 2018 and 2017 are summarized below. Fair values of these derivatives do not consider the offsetting impact of the underlying hedged item.

	Fair Value At May 31,	
(in millions)	2018	2017
Interest rate contracts	$-	$(0.3)
Foreign exchange contracts	(0.1)	0.1
Commodity contracts	10.7	7.4
	$10.6	$7.2

Safe Harbor

Quantitative and qualitative disclosures about market risk include forward-looking statements with respect to management's opinion about risks associated with the use of derivative instruments. These statements are based on certain assumptions with respect to market prices and industry supply of, and demand for, steel products and certain raw materials. To the extent these assumptions prove to be inaccurate, future outcomes with respect to hedging programs may differ materially from those discussed in the forward-looking statements.

Item 8. – Financial Statements and Supplementary Data

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders
Worthington Industries, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Worthington Industries, Inc. and subsidiaries (the Company) as of May 31, 2018 and 2017, the related consolidated statements of earnings, comprehensive income, equity, and cash flows for each of the years in the three year period ended May 31, 2018, and the related notes and financial statement schedule of valuation and qualifying accounts (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of May 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three year period ended May 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of May 31, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated July 30, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/KPMG LLP

We have served as the Company's auditor since 2001.

Columbus, Ohio
July 30, 2018

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WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands)

	May 31, 2018	2017
ASSETS		
Current assets:		
Cash and cash equivalents	$121,967	$278,081
Receivables, less allowances of $632 and $3,444 at May 31, 2018 and May 31, 2017, respectively	572,689	486,730
Inventories:		
Raw materials	237,471	185,001
Work in process	122,977	95,630
Finished products	93,579	73,303
Total inventories	454,027	353,934
Income taxes receivable	1,650	7,164
Assets held for sale	30,655	9,654
Prepaid expenses and other current assets	60,134	55,406
Total current assets	1,241,122	1,190,969
Investments in unconsolidated affiliates	216,010	208,591
Goodwill	345,183	247,673
Other intangible assets, net of accumulated amortization of $74,922 and $63,134 at May 31, 2018 and May 31, 2017, respectively	214,026	82,781
Other assets	20,476	24,841
Property, plant and equipment:		
Land	24,229	22,077
Buildings and improvements	300,542	297,951
Machinery and equipment	1,030,720	961,542
Construction in progress	32,282	27,616
Total property, plant and equipment	1,387,773	1,309,186
Less: accumulated depreciation	802,803	738,697
Total property, plant and equipment, net	584,970	570,489
Total assets	$2,621,787	$2,325,344

See notes to consolidated financial statements.

WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands)

	May 31, 2018	2017
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$473,485	$368,071
Short-term borrowings	-	123
Accrued compensation, contributions to employee benefit plans and related taxes	96,487	86,201
Dividends payable	13,731	13,698
Other accrued items	57,125	41,551
Income taxes payable	4,593	4,448
Current maturities of long-term debt	1,474	6,691
Total current liabilities	646,895	520,783
Other liabilities	74,237	61,498
Distributions in excess of investment in unconsolidated affiliate	55,198	63,038
Long-term debt	748,894	571,796
Deferred income taxes, net	60,188	34,300
Total liabilities	1,585,412	1,251,415
Shareholders' equity - controlling interest:		
Preferred shares, without par value; authorized - 1,000,000 shares; issued and outstanding - none	-	-
Common shares, without par value; authorized - 150,000,000 shares; issued and outstanding, 2018 - 58,876,921 shares, 2017 - 62,802,456 shares	-	-
Additional paid-in capital	295,592	303,391
Accumulated other comprehensive loss, net of taxes of $2,908 and $5,310 at May 31, 2018 and May 31, 2017, respectively	(14,580)	(27,775)
Retained earnings	637,757	676,019
Total shareholders' equity - controlling interest	918,769	951,635
Noncontrolling interests	117,606	122,294
Total equity	1,036,375	1,073,929
Total liabilities and equity	$2,621,787	$2,325,344

See notes to consolidated financial statements.

WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED STATEMENTS OF EARNINGS

(In thousands, except per share amounts)

	Fiscal Years Ended May 31,		
	2018	2017	2016
Net sales	$3,581,620	$3,014,108	$2,819,714
Cost of goods sold	3,018,763	2,478,203	2,367,121
Gross margin	562,857	535,905	452,593
Selling, general and administrative expense	367,460	316,373	297,402
Impairment of goodwill and long-lived assets	61,208	-	25,962
Restructuring and other expense (income), net	(7,421)	6,411	7,177
Operating income	141,610	213,121	122,052
Other income (expense):			
Miscellaneous income, net	2,996	3,764	11,267
Interest expense	(38,675)	(29,796)	(31,670)
Equity in net income of unconsolidated affiliates	103,139	110,038	114,966
Earnings before income taxes	209,070	297,127	216,615
Income tax expense	8,220	79,190	58,987
Net earnings	200,850	217,937	157,628
Net earnings attributable to noncontrolling interests	6,056	13,422	13,913
Net earnings attributable to controlling interest	$194,794	$204,515	$143,715
Basic			
Average common shares outstanding	60,923	62,443	62,469
Earnings per share attributable to controlling interest	$3.20	$3.28	$2.30
Diluted			
Average common shares outstanding	63,042	64,874	64,755
Earnings per share attributable to controlling interest	$3.09	$3.15	$2.22

See notes to consolidated financial statements.

WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

	Fiscal Years Ended May 31,		
	2018	2017	2016
Net earnings	$200,850	$217,937	$157,628
Other comprehensive income (loss):			
Foreign currency translation	12,744	1,342	4,716
Pension liability adjustment, net of tax	1,566	2,242	(2,058)
Cash flow hedges, net of tax	959	(2,822)	22,208
Other comprehensive income	15,269	762	24,866
Comprehensive income	216,119	218,699	182,494
Comprehensive income attributable to noncontrolling interests	6,429	13,394	16,640
Comprehensive income attributable to controlling interest	$209,690	$205,305	$165,854

See notes to consolidated financial statements.

WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED STATEMENTS OF EQUITY

(Dollars in thousands, except per share amounts)

	Controlling Interest							
	Common Shares		Additional Paid-in	Accumulated Other Comprehensive Loss,	Retained		Noncontrolling	
(in thousands)	Shares	Amount	Capital	Net of Tax	Earnings	Total	Interests	Total
Balance at May 31, 2015	64,141,478	$ -	$ 289,078	$ (50,704)	$ 510,738	$ 749,112	$ 90,937	$ 840,049
Net earnings	-	-	-	-	143,715	143,715	13,913	157,628
Other comprehensive income	-	-	-	22,139	-	22,139	2,727	24,866
Acquisition of Worthington Specialty Processing	-	-	-	-	-	-	28,004	28,004
Common shares issued, net of withholding tax	892,190	-	8,707	-	-	8,707	-	8,707
Theoretical common shares in NQ plans	-	-	960	-	-	960	-	960
Stock-based compensation	-	-	16,534	-	-	16,534	-	16,534
Purchases and retirement of common shares	(3,500,000)	-	(16,295)	-	(83,552)	(99,847)	-	(99,847)
Dividends to noncontrolling interests	-	-	-	-	-	-	(9,106)	(9,106)
Cash dividends declared ($0.76 per share)	-	-	-	-	(47,949)	(47,949)	-	(47,949)
Balance at May 31, 2016	61,533,668	$ -	$ 298,984	$ (28,565)	$ 522,952	$ 793,371	$ 126,475	$ 919,846
Net earnings	-	-	-	-	204,515	204,515	13,422	217,937
Other comprehensive income (loss)	-	-	-	790	-	790	(28)	762
Common shares issued, net of	1,268,788	-	(9,075)	-	-	(9,075)	-	(9,075)

withholding tax								
Theoretical common shares in NQ plans	-	-	1,259	-	-	1,259	-	1,259
Stock-based compensation	-	-	13,158	-	-	13,158	-	13,158
Purchase of noncontrolling interest in dHybrid Systems, LLC	-	-	(935)	-	-	(935)	(1,953)	(2,888)
Dividends to noncontrolling interests	-	-	-	-	-	-	(15,622)	(15,622)
Cash dividends declared ($0.80 per share)	-	-	-	-	(51,448)	(51,448)	-	(51,448)
Balance at May 31, 2017	62,802,456	$ -	$ 303,391	$ (27,775)	$ 676,019	$ 951,635	$ 122,294	$ 1,073,929
Net earnings	-	-	-	-	194,794	194,794	6,056	200,850
Other comprehensive income	-	-	-	14,896	-	14,896	373	15,269
Common shares issued, net of withholding tax	449,465	-	(2,120)	-	-	(2,120)	-	(2,120)
Theoretical common shares in NQ plans	-	-	1,218	-	-	1,218	-	1,218
Stock-based compensation	-	-	13,460	-	-	13,460	-	13,460
Purchase of noncontrolling interest in Worthington Aritas	-	-	924	-	-	924	(2,837)	(1,913)
Sale of controlling interest in WEI	-	-	-	-	-	-	(365)	(365)
Reclassification of stranded tax effects	-	-	-	(1,701)	1,701	-	-	-
Purchases and retirement of common shares	(4,375,000)	-	(21,281)	-	(182,986)	(204,267)	-	(204,267)
Dividends to noncontrolling interests	-	-	-	-	-	-	(7,915)	(7,915)
Cash dividends declared ($0.84 per share)	-	-	-	-	(51,771)	(51,771)	-	(51,771)
	58,876,921	$ -	$ 295,592	$ (14,580)	$ 637,757	$ 918,769	$ 117,606	$ 1,036,375

Balance at May 31,
2018

See notes to consolidated financial statements

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WORTHINGTON INDUSTRIES, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Fiscal Years Ended May 31,		
	2018	2017	2016
Operating activities:			
Net earnings	$200,850	$217,937	$157,628
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	103,359	86,793	84,699
Impairment of goodwill and long-lived assets	61,208	-	25,962
Provision for (benefit from) deferred income taxes	(38,237)	18,443	7,354
Bad debt expense	11	269	346
Equity in net income of unconsolidated affiliates, net of distributions	(13,352)	(8,023)	(29,473)
Net (gain) loss on assets	(10,522)	7,951	(12,996)
Stock-based compensation	13,758	14,349	15,836
Gain on previously held equity interest in Worthington Specialty Processing	-	-	(6,877)
Changes in assets and liabilities, net of impact of acquisitions:			
Receivables	(53,066)	(39,927)	66,117
Inventories	(84,654)	(34,599)	66,351
Prepaid expenses and other current assets	(12,402)	985	18,327
Other assets	(1,258)	1,905	(4,530)
Accounts payable and accrued expenses	105,984	67,492	20,180
Other liabilities	9,666	2,097	4,460
Net cash provided by operating activities	281,345	335,672	413,384
Investing activities:			
Investment in property, plant and equipment	(76,088)	(68,386)	(97,036)
Acquisitions, net of cash acquired	(285,028)	-	(34,206)
Distributions from (investments in) unconsolidated affiliates	2,400	-	(5,595)
Proceeds from sale of assets and insurance	21,311	5,422	9,797
Net cash used by investing activities	(337,405)	(62,964)	(127,040)
Financing activities:			
Net repayments of short-term borrowings, net of issuance costs	(948)	(2,528)	(85,843)
Proceeds from long-term debt, net of issuance costs	197,685	-	921
Principal payments on long-term debt	(31,130)	(874)	(862)
Proceeds from issuance of common shares, net of tax withholdings	(2,120)	(9,075)	8,707
Payments to noncontrolling interests	(7,915)	(15,622)	(9,106)
Repurchase of common shares	(204,267)	-	(99,847)
Dividends paid	(51,359)	(50,716)	(47,193)
Net cash used by financing activities	(100,054)	(78,815)	(233,223)
Increase (decrease) in cash and cash equivalents	(156,114)	193,893	53,121
Cash and cash equivalents at beginning of year	278,081	84,188	31,067

Cash and cash equivalents at end of year	$121,967	$278,081	$84,188

See notes to consolidated financial statements.

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WORTHINGTON INDUSTRIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Fiscal Years Ended May 31, 2018, 2017 and 2016

Note A – Summary of Significant Accounting Policies

Consolidation: The consolidated financial statements include the accounts of Worthington Industries, Inc. and consolidated subsidiaries (collectively, “we,” “our,” “Worthington,” or the “Company”). Investments in unconsolidated affiliates are accounted for using the equity method. Significant intercompany accounts and transactions are eliminated.

The Company owns controlling interests in the following three joint ventures: Spartan Steel Coating, LLC (“Spartan”) (52%), TWB Company, L.L.C. (“TWB”) (55%), and Worthington Specialty Processing (“WSP”) (51%). These joint ventures are consolidated with the equity owned by the other joint venture members shown as noncontrolling interests in our consolidated balance sheets, and their portions of net earnings and other comprehensive income (loss) (“OCI”) shown as net earnings or comprehensive income attributable to noncontrolling interests in our consolidated statements of earnings and comprehensive income, respectively. On January 1, 2017, the Company acquired the minority membership interest in dHybrid Systems, LLC (“dHybrid”) from the noncontrolling member in a non-cash transaction. The difference between the fair value of the noncontrolling interest and its carrying value was recorded as a reduction to additional paid-in capital in the amount of $935,000 (net of tax of $539,000). Effective March 31, 2018, the Company sold its controlling stake in Worthington Energy Innovations, LLC (“WEI”) to the minority member. There was no impact to net earnings as a result of the transaction as the fair value of the consideration received approximated the net book value of WEI. On May 23, 2018, the Company acquired the minority ownership interest in Turkey-based Worthington Arıtaş Basınçlı Kaplar Sanayi (“Worthington Aritas”) from the noncontrolling members in a non-cash transaction. The difference between the fair value of the noncontrolling interest and its carrying value was recorded as an increase to additional paid-in-capital in the amount of $924,000.

Use of Estimates: The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States (“U.S. GAAP”) requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents: We consider all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Inventories: Inventories are valued at the lower cost or net realizable value. Cost is determined using the first-in, first-out method for all inventories. The assessment of net realizable value requires the use of significant estimates to determine cost to complete, normal profit margin and the ultimate selling price of the inventory. We believe our inventories were valued appropriately as of May 31, 2018 and 2017.

Derivative Financial Instruments: We utilize derivative financial instruments to manage exposure to certain risks related to our ongoing operations. The primary risks managed through the use of derivative instruments include interest rate risk, currency exchange risk and commodity price risk. All derivative instruments are accounted for using mark-to-market accounting. The accounting for changes in the fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, if so, the reason for holding it. Gains and losses on fair value hedges are recognized in current period earnings in the same line as the underlying hedged item. The effective portion of gains and losses on cash flow hedges is deferred as a component of accumulated other comprehensive income or loss (“AOCI”) and recognized in earnings at the time the hedged item affects earnings, in the same financial statement caption as the underlying hedged item. Ineffectiveness of the hedges during the fiscal year ended May 31, 2018 (“fiscal 2018”), the fiscal year ended May 31, 2017 (“fiscal 2017”) and the fiscal year ended May 31, 2016 (“fiscal 2016”) was immaterial. Classification in the consolidated statements of earnings of gains and losses related to derivative instruments that do not qualify for hedge accounting is determined based on the underlying intent of the instruments. Cash flows related to derivative instruments are generally classified as operating activities in our consolidated statements of cash flows.

In order for hedging relationships to qualify for hedge accounting under current accounting guidance, we formally document each hedging relationship and its risk management objective. This documentation includes the hedge strategy, the hedging instrument, the hedged item, the nature of the risk being hedged, how hedge effectiveness will be assessed prospectively and retrospectively as well as a description of the method used to measure hedge ineffectiveness.

Derivative instruments are executed only with highly-rated counterparties. No credit loss is anticipated on existing instruments, and no material credit losses have been experienced to date. We monitor our positions, as well as the credit ratings of counterparties to those positions.

We discontinue hedge accounting when it is determined that the derivative instrument is no longer effective in offsetting the hedged risk, expires or is sold, is terminated or is no longer designated as a hedging instrument because it is unlikely that a forecasted transaction will occur or we determine that designation of the hedging instrument is no longer appropriate. In all situations in which hedge accounting is discontinued and the derivative instrument is retained, we continue to carry the derivative instrument at its fair value on the consolidated balance sheet and recognize any subsequent changes in its fair value in net earnings immediately. When it is probable that a forecasted transaction will not occur, we discontinue hedge accounting and immediately recognize the gains and losses that were accumulated in AOCI.

Refer to “Note P – Derivative Instruments and Hedging Activities” for additional information regarding the consolidated balance sheet location and the risk classification of our derivative instruments.

Risks and Uncertainties: As of May 31, 2018, excluding our joint ventures, we operated 36 manufacturing facilities worldwide, principally in three operating segments, which correspond with our reportable business segments: Steel Processing, Pressure Cylinders, and Engineered Cabs. We also held equity positions in 9 joint ventures, which operated 49 manufacturing facilities worldwide, as of May 31, 2018. Our largest end market is the automotive industry, which comprised 37%, 43%, and 42% of consolidated net sales in fiscal 2018, fiscal 2017, and fiscal 2016, respectively. Our international operations represented 9%, 7%, and 6% of consolidated net sales and 6%, 4%, and 8% of net earnings attributable to controlling interest in fiscal 2018, fiscal 2017, and fiscal 2016, respectively, and 14% and 11% of consolidated net assets as of May 31, 2018 and May 31, 2017, respectively. As of May 31, 2018, approximately 9% of our consolidated labor force was represented by collective bargaining agreements. The concentration of credit risks from financial instruments related to the markets we serve is not expected to have a material adverse effect on our consolidated financial position, cash flows or future results of operations.

In fiscal 2018, our largest customer accounted for approximately 8% of our consolidated net sales, and our ten largest customers accounted for approximately 30% of our consolidated net sales. A significant loss of, or decrease in, business from any of these customers could have an adverse effect on our consolidated net sales and financial results if we were not able to obtain replacement business. Also, due to consolidation within the industries we serve, including the construction, automotive and retail industries, our sales may be increasingly sensitive to deterioration in the financial condition of, or other adverse developments with respect to, one or more of our largest customers.

Our principal raw material is flat-rolled steel, which we purchase from multiple primary steel producers. The steel industry as a whole has been cyclical, and at times availability and pricing can be volatile due to a number of factors beyond our control. This volatility can significantly affect our steel costs. In an environment of increasing prices for steel and other raw materials, in general, competitive conditions may impact how much of the price increases we can pass on to our customers. To the extent we are unable to pass on future price increases in our raw materials to our customers, our financial results could be adversely affected. Also, if steel prices decrease, in general, competitive conditions may impact how quickly we must reduce our prices to our customers, and we could be forced to use higher-priced raw materials to complete orders for which the selling prices have decreased. Declining steel prices could also require us to write-down the value of our inventories to reflect current market pricing. Further, the number of suppliers has decreased in recent years due to industry consolidation and the financial difficulties of certain suppliers, and consolidation may continue. Accordingly, if delivery from a major steel supplier is disrupted, it may be more difficult to obtain an alternative supply than in the past.

Receivables: We review our receivables on an ongoing basis to ensure that they are properly valued and collectible. This is accomplished through two contra-receivable accounts: returns and allowances and allowance for doubtful accounts. Returns and allowances are used to record estimates of returns or other allowances resulting from quality, delivery, discounts or other issues affecting the value of receivables. This account is estimated based on historical trends and current market conditions, with the offset to net sales. The returns and allowances account decreased approximately $538,000 during fiscal 2018 to $6,199,000.

The allowance for doubtful accounts is used to record the estimated risk of loss related to the customers' inability to pay. This allowance is maintained at a level that we consider appropriate based on factors that affect collectability, such as the financial health of our customers, historical trends of charge-offs and recoveries and current economic and market conditions. As we monitor our receivables, we identify customers that may have payment problems, and we adjust the allowance accordingly, with the offset to selling, general and administrative ("SG&A") expense. Account balances are charged off against the allowance when recovery is considered remote. The allowance for doubtful accounts decreased approximately $2,812,000 during fiscal 2018 to $632,000.

While we believe our allowance for doubtful accounts is adequate, changes in economic conditions, the financial health of customers and bankruptcy settlements could impact our future earnings. If the economic environment and market conditions deteriorate, particularly in the automotive and construction end markets where our exposure is greatest, additional reserves may be required.

Property and Depreciation: Property, plant and equipment are carried at cost and depreciated using the straight-line method. Buildings and improvements are depreciated over 10 to 40 years and machinery and equipment over 3 to 20 years. Depreciation expense was $83,680,000, $73,268,000 and $68,886,000 during fiscal 2018, fiscal 2017 and fiscal 2016, respectively. Accelerated depreciation methods are used for income tax purposes.

Goodwill and Other Long-Lived Assets: We use the purchase method of accounting for all business combinations and recognize amortizable and indefinite-lived intangible assets separately from goodwill. The acquired assets and assumed liabilities in an acquisition are measured and recognized based on their estimated fair values at the date of acquisition, with goodwill representing the excess of the purchase price over the fair value of the identifiable net assets. A bargain purchase may occur, wherein the fair value of identifiable net assets exceeds the purchase price, and a gain is then recognized in the amount of that excess. Goodwill and intangible assets with indefinite lives are not amortized, but instead are tested for impairment annually, during the fourth quarter, or more frequently if events or changes in circumstances indicate that impairment may be present. Application of goodwill impairment testing involves judgment, including but not limited to, the identification of reporting units and estimation of the fair value of each reporting unit. A reporting unit is defined as an operating segment or one level below an operating segment. With the exception of Pressure Cylinders, we test goodwill at the operating segment level as we have determined that the characteristics of the reporting units within each operating segment are similar and allow for their aggregation in accordance with the applicable accounting guidance. For our Pressure Cylinders operating segment, the oil & gas equipment business has been treated as a separate reporting unit since the second quarter of fiscal 2016.

For goodwill and indefinite-lived intangible assets, we test for impairment by completing what is referred to as the "Step 0" analysis which involves evaluating qualitative factors including macroeconomic conditions, industry and market considerations, cost factors, and overall financial performance. If our "Step 0" analysis indicates it is more likely than not that the fair value is less than the carrying amount, we would perform a quantitative impairment test. The quantitative analysis compares the fair value of each reporting unit or indefinite-lived intangible asset to the respective carrying amount, and an impairment loss is recognized in our consolidated statements of earnings equivalent to the excess of the carrying amount over the fair value. Fair value is determined based on discounted cash flows or appraised values, as appropriate.

We review the carrying value of our long-lived assets, including intangible assets with finite useful lives, for impairment whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. Impairment testing involves a comparison of the sum of the undiscounted future cash flows of the asset or asset group to its respective carrying amount. If the sum of the undiscounted future cash flows exceeds the carrying amount, then no impairment exists. If the carrying amount exceeds the sum of the undiscounted future cash flows, then a second step is performed to determine the amount of impairment, if any, to be recognized. The impairment loss recognized is equal to the amount that the carrying value of the asset or asset group exceeds its fair value. Long-lived assets held for sale are reported at the lower of cost or fair value less costs to sell and are recorded in a single line in the consolidated balance sheets. We classify assets as held for sale if we commit to a plan to sell the assets within one year and actively market the assets in their current condition for a price that is reasonable in comparison to their estimated fair value.

Our impairment testing for both goodwill and other long-lived assets, including intangible assets with finite useful lives, is largely based on cash flow models that require significant judgment and require assumptions about future volume trends, revenue and expense growth rates; and, in addition, external factors such as changes in economic trends and cost of capital. Significant changes in any of these assumptions could impact the outcomes of the tests performed. See "Note C – Goodwill and Other Long-Lived Assets" for additional details regarding these assets and related impairment testing.

Leases: Certain lease agreements contain fluctuating or escalating payments and rent holiday periods. The related rent expense is recorded on a straight-line basis over the lease term. Leasehold improvements made by the lessee, whether funded by the lessee or by landlord allowances or incentives, are recorded as leasehold improvement assets and will be amortized over the shorter of the economic life or the lease term. These incentives are recorded as deferred rent and amortized as reductions in rent expense over the lease term.

Stock-Based Compensation: At May 31, 2018, we had stock-based compensation plans for our employees as well as our non-employee directors as described more fully in "Note J – Stock-Based Compensation." All share-based awards, including grants of stock options and restricted common shares, are recorded as expense in the consolidated statements of earnings based on their grant-date fair values. We estimate forfeitures at the date of grant based on historic experience.

Revenue Recognition: We recognize revenue upon transfer of title and risk of loss, or in the case of toll processing revenue, upon delivery of the goods, provided evidence of an arrangement exists, pricing is fixed and determinable and the ability to collect is probable. We provide, through charges to net sales, for returns and allowances based on experience and current customer activities. We also provide, through charges to net sales, for customer rebates and sales discounts based on specific agreements and recent and anticipated levels of customer activity. In circumstances where the collection of payment is not probable at the time of shipment, we defer recognition of revenue until payment is collected.

Advertising Expense: Advertising costs are expensed as incurred and included in SG&A expense. Advertising expense was $15,236,000, $14,822,000, and $13,970,000 for fiscal 2018, fiscal 2017 and fiscal 2016, respectively.

Shipping and Handling Fees and Costs: Shipping and handling fees billed to customers are included in net sales. Shipping and handling costs incurred are included in cost of goods sold.

Environmental Costs: Environmental costs are capitalized if the costs extend the life of the property, increase its capacity, and/or mitigate or prevent contamination from future operations. Costs related to environmental contamination treatment and cleanup are charged to expense as incurred.

Statements of Cash Flows: Supplemental cash flow information was as follows for the fiscal years ended May 31:

(in thousands)	2018	2017	2016
Interest paid, net of amount capitalized	$34,839	$29,826	$30,431
Income taxes paid, net of refunds	$44,819	$55,652	$50,750

We use the "cumulative earnings" approach for determining cash flow presentation of distributions from our unconsolidated joint ventures. Distributions received are included in our consolidated statements of cash flows as operating activities, unless the cumulative distributions exceed our portion of the cumulative equity in the net earnings of the joint venture, in which case the excess distributions are deemed to be returns of the investment and are classified as investing activities in our consolidated statements of cash flows.

Income Taxes: We account for income taxes using the asset and liability method. The asset and liability method requires the recognition of deferred tax assets and liabilities for expected future tax consequences of temporary differences that currently exist between the tax basis and the financial reporting basis of our assets and liabilities. In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that all, or a portion, of the deferred tax assets will not be realized. We provide a valuation allowance for deferred income tax assets when it is more likely than not that a portion of such deferred income tax assets will not be realized.

Tax benefits from uncertain tax positions that are recognized in the consolidated financial statements are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

We have reserves for income taxes and associated interest and penalties that may become payable in future years as a result of audits by taxing authorities. It is our policy to record these in income tax expense. While we believe the positions taken on previously filed tax returns are appropriate, we have established the tax and interest reserves in recognition that various taxing authorities may challenge our positions. These reserves are analyzed periodically, and adjustments are made as events occur to warrant adjustment to the reserves, such as lapsing of applicable statutes of limitations, conclusion of tax audits, additional exposure based on current calculations, identification of new issues and release of administrative guidance or court decisions affecting a particular tax issue.

Self-Insurance Reserves: We are largely self-insured with respect to workers' compensation, general and automobile liability, property damage, employee medical claims and other potential losses. In order to reduce risk and better manage our overall loss exposure, we purchase stop-loss insurance that covers individual claims in excess of the deductible amounts. We maintain reserves for the estimated cost to settle open claims, which includes estimates of legal costs expected to be incurred, as well as an estimate of the cost of claims that have been incurred but not reported. These estimates are based on actuarial valuations that take into consideration the historical average claim volume, the average cost for settled claims, current trends in claim costs, changes in our business and workforce, general economic factors and other assumptions believed to be reasonable under the circumstances. The estimated reserves for these liabilities could be affected if future occurrences and claims differ from the assumptions used and historical trends.

Recently Adopted Accounting Standards:

In July 2015, amended accounting guidance was issued regarding the measurement of inventory. The amended guidance requires that inventory accounted for under the first-in, first-out (FIFO) or average cost methods be measured at the lower of cost and net realizable value, where net realizable value represents the estimated selling price of inventory in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The amended guidance has no impact on inventory accounted for under the last-in, first-out (LIFO) or retail inventory methods. The Company adopted this amended guidance on a prospective basis effective June 1, 2017. The adoption of this guidance did not impact our consolidated financial position or results of operations.

In August 2016, amended accounting guidance was issued to clarify the proper cash flow presentation of certain specific types of cash payments and cash receipts. The Company early adopted this amended guidance on a prospective basis effective June 1, 2017. The adoption of this guidance did not impact our consolidated statements of cash flows or ongoing financial reporting.

In January 2017, amended accounting guidance was issued to clarify the definition of a business to provide additional guidance to assist in evaluating whether transactions should be accounted for as an acquisition (or disposal) of either an asset or a business. The Company early adopted this amended guidance on a prospective basis effective September 1, 2017. The adoption of this guidance did not impact our consolidated financial position or results of operations.

In January 2017, amended accounting guidance was issued to simplify the goodwill impairment calculation, by removing Step 2 of the goodwill impairment test. Goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of the goodwill. The Company early adopted this amended guidance on a prospective basis effective September 1, 2017. The adoption of this guidance did not impact our consolidated financial position or results of operations.

In February 2018, amended guidance was issued that would allow a reclassification from AOCI to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act ("TCJA") signed into law in December 2017. The amended guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. It is to be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the TCJA is recognized. The Company early adopted this amended guidance in the fourth quarter of fiscal 2018. As a result, the stranded tax effects in AOCI of $1,701,000, related to various unrealized gains and losses associated with the Company's hedge instruments and minimum pension liability, were reclassified to retained earnings.

Recently Issued Accounting Standards:

In May 2014, new accounting guidance was issued that replaces most existing revenue recognition guidance under U.S. GAAP. The new guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. Subsequently, additional guidance was issued on several areas including guidance intended to improve the operability and understandability of the implementation of principal versus agent considerations and clarifications on the identification of performance obligations and implementation of guidance related to licensing. The new guidance is effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. The guidance permits the use of either the retrospective or cumulative effect transition method. The Company adopted this guidance on June 1, 2018 using the cumulative effect transition method. Based on our evaluation, which included a review of significant contracts with customers across all revenue streams, it resulted in a change in timing of revenue recognition for the toll processing and oil & gas equipment revenue streams and did not have a material impact on our consolidated financial position or results of operations. As a result of the adoption of this guidance, the Company will make additional disclosures related to the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers as required by the new guidance.

In February 2016, new accounting guidance was issued that replaces most existing lease accounting guidance under U.S. GAAP. Among other changes, the new guidance requires that leased assets and liabilities be recognized on the balance sheet by lessees for those leases classified as operating leases under previous guidance. The new guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted, and the change is to be applied using a modified retrospective approach as of the beginning of the earliest period presented. We are in the process of evaluating the effect this guidance will have on our consolidated financial position, results of operations and cash flows, and we have not determined the effect of the new guidance on our ongoing financial reporting. As of May 31, 2018, we have operating leases with $43,400,000 of future minimum lease payments.

In June 2016, amended accounting guidance was issued related to the measurement of credit losses on financial instruments. The amended guidance changes the impairment model for most financial assets to require measurement and recognition of expected credit losses for financial assets held. The amended guidance is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. We are in the process of evaluating the effect this guidance will have on our consolidated financial position and results of operations; however, we do not expect the amended guidance to have a material impact on our ongoing financial reporting.

In October 2016, amended accounting guidance was issued that requires the income tax consequences of an intra-entity transfer of an asset other than inventory to be recognized when the transfer occurs. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and is to be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position, results of operations and cash flows.

In November 2016, amended accounting guidance was issued that requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated cash flows.

In March 2017, amended accounting guidance was issued that requires an employer to report the service cost component of pension and postretirement benefits in the same line item as other current employee compensation costs. Additionally, other components of net benefit cost are to be presented in the income statement separately from the service cost component and outside of income from operations. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and is to be applied retrospectively for the presentation in the income statement and prospectively on and after the effective date for the capitalization of service cost. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position, results of operations and cash flows.

In May 2017, amended accounting guidance was issued to provide guidance about which changes to the terms or conditions of a share-based payment award require application of modification accounting. The amended guidance is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the adoption of this amended guidance to have a material impact on our consolidated financial position or results of operations.

In August 2017, amended accounting guidance was issued that modifies hedge accounting by making more hedge strategies eligible for hedge accounting, amending presentation and disclosure requirements, and changing how companies assess effectiveness. The intent is to simplify application of hedge accounting and increase transparency of information about an entity's risk management activities. The amended guidance is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. It is to be applied using a modified retrospective transition approach for cash flow and net investment hedges existing at the date of adoption. The presentation and disclosure guidance is only required prospectively. Early adoption is permitted. We are in the process of evaluating the effect this guidance will have on our consolidated financial position and results of operations, and have not determined the effect on our ongoing financial reporting.

Note B – Investments in Unconsolidated Affiliates

Our investments in affiliated companies that we do not control, either through majority ownership or otherwise, are accounted for using the equity method. These include ArtiFlex Manufacturing, LLC ("ArtiFlex") (50%), Clarkwestern Dietrich Building Systems LLC ("ClarkDietrich") (25%), Samuel Steel Pickling Company (31.25%), Serviacero Planos, S. de R. L. de C.V. ("Serviacero Worthington") (50%), Worthington Armstrong Venture ("WAVE") (50%), and Zhejiang Nisshin Worthington Precision Specialty Steel Co., Ltd. (10%).

We received distributions from unconsolidated affiliates totaling $89,787,000, $102,015,000, and $86,513,000 in fiscal 2018, fiscal 2017 and fiscal 2016, respectively. We have received cumulative distributions from WAVE in excess of our investment balance, which resulted in an amount recorded within other liabilities on our consolidated balance sheets of $55,198,000 and $63,038,000 at May 31, 2018 and 2017, respectively. In accordance with the applicable accounting guidance, we reclassified the negative balance to the liabilities section of our consolidated balance sheet. We will continue to record our equity in the net income of WAVE as a debit to the investment account, and if it becomes positive, it will again be shown as an asset on our consolidated balance sheet. If it becomes probable that any excess distribution may not be returned (upon joint venture liquidation or otherwise), we will recognize any balance classified as a liability as income immediately.

The following table presents combined information regarding the financial position of our unconsolidated affiliates accounted for using the equity method as of May 31:

(in thousands)	2018	2017
Cash	$52,812	$55,541
Other current assets	590,578	541,746
Current assets for discontinued operations	37,640	17,275
Noncurrent assets	358,927	342,938
Noncurrent assets for discontinued operations	-	18,168
Total assets	$1,039,957	$975,668

Current liabilities	$166,493	$148,056
Current liabilities for discontinued operations	7,142	8,891
Short-term borrowings	26,599	8,172
Current maturities of long-term debt	23,243	5,827
Long-term debt	259,588	268,711
Other noncurrent liabilities	17,536	20,890
Noncurrent liabilities for discontinued operations	-	490
Equity	539,356	514,631
Total liabilities and equity	$1,039,957	$975,668

The following table presents summarized financial information for our four largest unconsolidated affiliates as of, and for the fiscal years ended May 31. All other unconsolidated affiliates are combined and presented in the Other category, including WSP through March 1, 2016. On March 1, 2016, the Company obtained effective control over the operations of WSP and, as a result, began consolidating its financial results within those of Steel Processing.

(in thousands)	2018	2017	2016
Net sales			
WAVE	$360,395	$334,031	$329,050
ClarkDietrich	790,887	711,735	615,609
Serviacero Worthington	315,098	275,315	260,337
ArtiFlex	197,061	208,922	219,510
Other	28,578	17,784	74,214
Total net sales	$1,692,019	$1,547,787	$1,498,720
Gross margin (loss)			
WAVE	$201,581	$190,350	$191,535
ClarkDietrich	97,437	128,098	95,427
Serviacero Worthington	32,396	37,080	15,328
ArtiFlex	18,266	22,829	30,181
Other	(6,399)	(4,313)	13,142
Total gross margin	$343,281	$374,044	$345,613
Operating income (loss)			
WAVE	$158,697	$158,030	$162,026
ClarkDietrich	39,153	68,696	33,897
Serviacero Worthington	24,232	29,975	11,110
ArtiFlex	11,395	15,519	22,612
Other	(10,584)	(8,407)	6,910
Total operating income	$222,893	$263,813	$236,555
Depreciation and amortization			
WAVE	$1,659	$2,978	$2,245
ClarkDietrich	11,864	12,718	14,289
Serviacero Worthington	3,919	3,862	3,508
ArtiFlex	5,515	5,850	6,105
Other	749	698	3,081
Total depreciation and amortization	$23,706	$26,106	$29,228
Interest expense (income)			
WAVE	$8,365	$7,182	$6,635
ClarkDietrich	114	20	80
Serviacero Worthington	397	89	114
ArtiFlex	1,333	1,429	1,650
Other	(1)	-	(10)
Total interest expense	$10,208	$8,720	$8,469

Income tax expense (benefit)			
WAVE	$119	$2,398	$(14)
ClarkDietrich	-	-	-
Serviacero Worthington	5,141	11,740	6,249
ArtiFlex	208	(2)	289
Other	-	(2)	53
Total income tax expense	$5,468	$14,134	$6,577
Net earnings (loss)			
WAVE (1)	$152,329	$154,866	$164,132
ClarkDietrich	39,138	69,122	58,539
Serviacero Worthington	17,577	18,140	6,246
ArtiFlex	9,854	14,092	20,673
Other	(11,922)	(5,472)	8,516
Total net earnings	$206,976	$250,748	$258,106

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(1) On November 20, 2017, WAVE agreed to sell its business and operations in Europe and Asia to the Knauf Group, a family-owned manufacturer of building materials headquartered in Germany. WAVE has classified its businesses to be sold as discontinued operations. These net earnings include net income attributable to discontinued operations of $2,226,000, $6,775,000, and $8,930,000 in fiscal 2018, fiscal 2017, and fiscal 2016, respectively. All other amounts presented in the table above exclude the activity of the discontinued operations of WAVE

At May 31, 2018 and 2017, $42,636,000 and $28,803,000, respectively, of our consolidated retained earnings represented undistributed earnings of our unconsolidated affiliates, net of tax.

Note C – Goodwill and Other Long-Lived Assets

Goodwill

The following table summarizes the changes in the carrying amount of goodwill during fiscal 2018 and fiscal 2017 by reportable business segment:

(in thousands)	Steel Processing	Pressure Cylinders	Engineered Cabs	Other	Total
Balance at May 31, 2016					
Goodwill	$ 7,045	$ 233,371	$ 44,933	$ 127,245	$ 412,594
Accumulated impairment losses	-	-	(44,933)	(121,594)	(166,527)
	7,045	233,371	-	5,651	246,067
Acquisitions and purchase accounting adjustments	854	-	-	-	854
Translation adjustments	-	752	-	-	752
	854	752	-	-	1,606
Balance at May 31, 2017					
Goodwill	7,899	234,123	44,933	127,245	414,200
Accumulated impairment losses	-	-	(44,933)	(121,594)	(166,527)
	7,899	234,123	-	5,651	247,673
Acquisitions and purchase accounting adjustments	-	103,437	-	-	103,437
Translation adjustments	-	3,739	-	-	3,739
Impairment losses	-	(4,015)	-	(5,651)	(9,666)
	-	103,161	-	(5,651)	97,510
Balance at May 31, 2018					
Goodwill	7,899	341,299	44,933	127,245	521,376
Accumulated impairment losses	-	(4,015)	(44,933)	(127,245)	(176,193)
	$ 7,899	$ 337,284	$ -	$ -	$ 345,183

For additional information regarding the Company's acquisitions, refer to "Note O – Acquisitions." Fiscal 2018 impairment charges noted in the table above consisted of $4,015,000 of goodwill allocated to oil & gas equipment assets available for sale and $5,651,000 related to the sale of a 65% stake in WEI on March 31, 2018.

Other Intangible Assets

Intangible assets with definite lives are amortized on a straight-line basis over their estimated useful lives, which range from one to 20 years. The following table summarizes other intangible assets by class as of May 31, 2018 and 2017:

(in thousands)	2018 Cost	2018 Accumulated Amortization	2017 Cost	2017 Accumulated Amortization
Indefinite-lived intangible assets:				
Trademarks	$76,701	$ -	$14,501	$ -
Total indefinite-lived intangible assets	76,701	-	14,501	-
Definite-lived intangible assets:				
Customer relationships	$173,363	$ 57,125	$96,262	$ 45,822
Non-compete agreements	8,669	8,137	9,443	7,751
Technology / know-how	26,411	5,856	21,755	5,607
Other	3,804	3,804	3,954	3,954
Total definite-lived intangible assets	212,247	74,922	131,414	63,134
Total intangible assets	$288,948	$ 74,922	$145,915	$ 63,134

The increase in the carrying value of other intangible assets was primarily driven by the June 2, 2017 acquisition of AMTROL, as disclosed in "Note O – Acquisitions", partially offset by impairment charges of $11,549,000, $3,849,000 and $1,674,000 related to intangible assets of Worthington Aritas, certain oil & gas equipment asset groups in Pressure Cylinders and WEI, respectively, as further discussed below.

Amortization expense totaled $19,679,000, $13,525,000, and $15,813,000 in fiscal 2018, fiscal 2017 and fiscal 2016, respectively.

Amortization expense for each of the next five fiscal years is estimated to be:

(in thousands)	
2019	$15,308
2020	$13,299
2021	$12,539
2022	$10,858
2023	$10,221

Impairment of Long-Lived Assets

Fiscal 2018: During the fourth quarter of fiscal 2018, management committed to plans to sell the Company's cryogenics business in Turkey, Worthington Aritas, and certain underperforming oil & gas equipment assets within

Pressure Cylinders. As all of the criteria for classification as assets held for sale were met in both instances, the net assets of each asset group have been presented separately as assets held for sale in our consolidated balance sheets. In accordance with the applicable accounting guidance, the net assets were recorded at the lower of net book value or fair value less costs to sell. The book value of Worthington Aritas exceeded its estimated fair market value of $9,000,000, resulting in an impairment charge of $42,422,000, consisting of $19,621,000, $11,549,000, and $11,252,000 related to fixed assets, intangible assets, and other assets, respectively. The impairment charge related to intangible assets was for customer relationships and technological know-how. The book value of the oil & gas equipment asset group also exceeded its estimated fair market value of $21,000,000, resulting in an impairment charge of $10,497,000, consisting of $4,015,000, $3,849,000, and $2,633,000 related to allocated goodwill, intangible assets, and fixed assets, respectively. The impairment charge related to intangible assets was for the full write-off of the remaining book value of customer relationships. In both instances, fair value was determined using observable (Level 2) inputs.

During the second quarter of fiscal 2018, the Company determined that indicators of impairment were present with regard to the goodwill and intangible assets of the former WEI reporting unit. As a result, these assets were written down to their estimated fair value resulting in an impairment charge of $7,325,000. During the second quarter of fiscal 2018, the Company also identified the presence of impairment indicators with regard to vacant land at the oil & gas equipment facility in Bremen, Ohio, resulting in an impairment charge of $964,000 to write the vacant land down to its estimated fair value.

Fiscal 2016: Due to the decline in oil prices and resulting reduced demand for products, management determined that an impairment indicator was present for the long-lived assets in the oil & gas equipment business within Pressure Cylinders. The Company had tested the five asset groups in its oil & gas equipment business for impairment during the fourth quarter of fiscal 2015 and again in the first quarter of fiscal 2016. In each of these tests, the Company's estimate of the undiscounted future cash flows for each asset group indicated that the carrying amounts were expected to be recovered as of those measurement dates.

During the second quarter of fiscal 2016, the continued decline of oil prices further reduced the demand for oil & gas equipment products, causing a significant decrease in the long-term cash flow projections of that business. Based on these revised cash flow projections, the Company determined that long-lived assets of two of the facilities with a combined carrying amount of $59,895,000 were impaired and wrote them down to their estimated fair value of $36,933,000, resulting in an impairment charge of $22,962,000. Fair value was based on expected future cash flows using Level 3 inputs under Accounting Standard Codification ("ASC") 820. The cash flows are those expected to be generated by market participants, discounted at an appropriate rate for the risks inherent in those cash flow projections, or 13%.

As a result of the impairment of the oil & gas equipment assets noted above, the Company also performed an impairment review of the goodwill of the Pressure Cylinders reporting unit during the second quarter of fiscal 2016. The Company first assessed the reporting unit structure and determined that it was no longer appropriate to aggregate the oil & gas equipment component with the rest of Pressure Cylinders for purposes of goodwill impairment testing. This determination was driven by changes in the economic characteristics of the oil & gas equipment business as a result of sustained low oil prices, which indicated that the risk profile and prospects for growth and profitability were no longer similar to the other components of Pressure Cylinders. In accordance with the applicable accounting guidance, the Company allocated a portion of Pressure Cylinders goodwill totaling $25,982,000 to the Oil & Gas Equipment reporting unit using a relative fair value approach. A subsequent comparison of the fair values of the Oil & Gas Equipment and the Pressure Cylinders reporting units, determined using discounted cash flows, to their respective carrying values indicated that a step 2 calculation to quantify a potential impairment was not required. The key assumptions that drive the fair value calculations are projected cash flows and the discount rate. Prior to the allocation of goodwill, the Company tested the goodwill of the old Pressure Cylinders reporting unit for impairment and determined that fair value exceeded carrying value by a significant amount.

During the first quarter of fiscal 2016, management finalized its plan to close the Engineered Cabs facility in Florence, South Carolina and transfer the majority of the business to the Engineered Cabs facility in Greeneville, Tennessee. Under the plan, certain machinery and equipment was transferred to the Greeneville facility to support higher volume requirements. Management reevaluated the recoverability of the remaining assets and determined that long-lived assets with a carrying value of $4,059,000 were impaired. As a result, these long-lived assets were written down to their estimated fair value of $1,059,000 resulting in an impairment charge of $3,000,000 during the first quarter of fiscal 2016. The Company ceased production at the Florence facility on September 30, 2015.

Note D – Restructuring and Other Expense (Income), Net

We consider restructuring activities to be programs whereby we fundamentally change our operations such as closing and consolidating manufacturing facilities or moving manufacturing of a product to another location. Restructuring activities may also involve substantial realignment of the management structure of a business unit in response to changing market conditions.

A progression of the liabilities associated with our restructuring activities, combined with a reconciliation to the restructuring and other income, net financial statement caption in our consolidated statement of earnings for fiscal 2018, is summarized below:

(in thousands)	Beginning Balance	Expense	Payments	Adjustments	Ending Balance
Early retirement and severance	$ 253	$ 2,549	$ (1,787		