

**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 AND EXCHANGE ACT OF 1934**

For the fiscal year ended **December 31, 2020**

☐ **TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES ACT OF 1934**

FOR THE TRANSITION PERIOD FROM TO

Commission file number **001-14775**

DMC Global Inc.

(Exact name of Registrant as Specified in its Charter)

Delaware
(State of Incorporation or Organization)

84-0608431
(I.R.S. Employer Identification No.)

11800 Ridge Parkway, Suite 300, Broomfield, Colorado 80021

(Address of principal executive offices, including zip code)

(303) 665-5700

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, \$.05 Par Value	BOOM	The Nasdaq Global Select Market

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 15(d) of the Act from their obligations under those sections.
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 every Interactive Data File required to be submitted 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 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 ☐

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

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

The approximate aggregate market value of the voting stock held by non-affiliates of the registrant was \$ 264,854,982 as of June 30, 2020.

The number of shares of Common Stock outstanding was 15,389,285 as of February 19, 2021.

Certain information required by Items 10, 11, 12, 13 and 14 of Form 10-K is incorporated by reference into Part III hereof from the registrant's proxy statement for its 2021 Annual Meeting of Stockholders, which is expected to be filed with the Securities and Exchange Commission ("SEC") within 120 days of the close of the registrant's fiscal year ended December 31, 2020.

TABLE OF CONTENTS

	<u>Page</u>
Part I	
Item 1. Business	1
Item 1A. Risk Factors	12
Item 1B. Unresolved Staff Comments	25
Item 2. Properties	25
Item 3. Legal Proceedings	28
Item 4. Mine Safety Disclosures	28
Part II	29
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	29
Item 6. Selected Financial Data	31
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	32
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	47
Item 8. Financial Statements and Supplementary Data	48
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	80
Item 9A. Controls and Procedures	81
Item 9B. Other Information	84
Part III	85
Item 10. Directors, Executive Officers and Corporate Governance	85
Item 11. Executive Compensation	85
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	85
Item 13. Certain Relationships and Related Transactions, and Director Independence	85
Item 14. Principal Accounting Fees and Services	85
Part IV	86
Item 15. Exhibits and Financial Statement Schedules	86
Signatures	89

PART I

ITEM 1. Business

References made in this Annual Report on Form 10-K to “we”, “our”, “us”, “DMC”, “DMC Global” and the “Company” refer to DMC Global Inc. and its consolidated subsidiaries. Unless stated otherwise, all dollar figures in this report are presented in thousands (000s).

Overview

DMC Global Inc. (“DMC”, “we”, “us”, “our”, or the “Company”) is a diversified holding company. Today, DMC’s portfolio consists of DynaEnergetics and NobelClad, which collectively address the energy, industrial processing and transportation markets. DynaEnergetics designs, manufactures and distributes products utilized by the global oil and gas industry principally for the perforation of oil and gas wells. NobelClad is a leader in the production of explosion-welded clad metal plates for use in the construction of corrosion resistant industrial processing equipment and specialized transition joints. Both DynaEnergetics and NobelClad operate globally through an international network of manufacturing, distribution and sales facilities. See Note 7 within Item 8 — Financial Statements and Supplementary Data for net sales, operating income, and total assets for each of our segments.

Our Strategy

Our diversified segments each provide a suite of unique technical products to niche sectors of the global energy, industrial and infrastructure markets, and each has established a strong position in the markets in which it participates. DMC’s objective is to identify well-run businesses and strong management teams and support them with long-term capital and strategic, legal, technology and operating resources. Our approach helps our portfolio companies grow core businesses, launch new initiatives, upgrade technologies and systems to support their long-term strategy, and make acquisitions that improve their competitive positions and expand their markets. DMC’s culture is to foster local innovation versus centralized control and to stand behind our businesses in ways that truly add value.

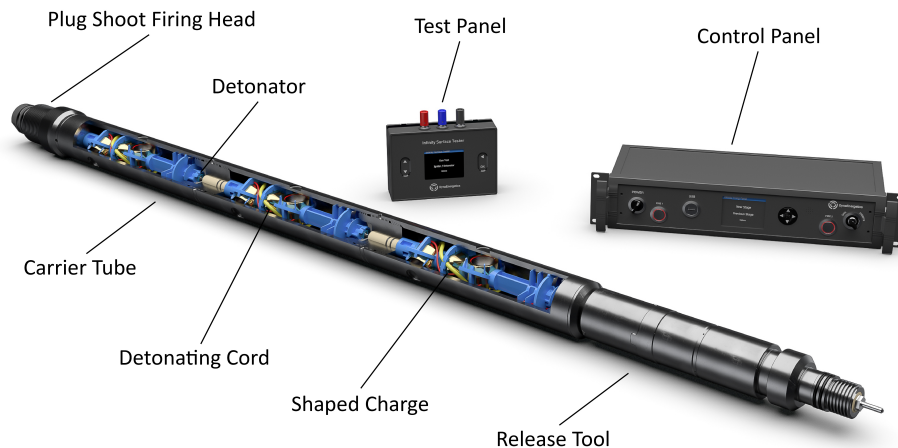
Business Segments

DynaEnergetics

DynaEnergetics designs, manufactures, markets and sells perforating systems and associated hardware for the global oil and gas industry. During the well drilling process, steel casing is inserted into the well and cemented in place to isolate and support the integrity of the wellbore. A perforating system, which contains a series of specialized explosive shaped charges, is used to punch holes through the casing and cement liner of the well and into the geologic formation surrounding the well bore. The channels created by the shaped charges allow hydrocarbons to flow back into the well bore. When hydraulic fracturing is employed, the perforations and channels also provide a path for the fracturing fluid to enter and return from the formation.

In unconventional wells, multiple perforating systems, which generally range from seven inches to three feet in length, are connected end-to-end into a perforating “string.” The string is lowered into the well and then pumped by fluid across the horizontal lateral to the target location within the shale formation. When the perforating system is initiated via an electronic or digital signal from the surface, the shaped charges detonate.

DynaEnergetics designs, manufactures and sells all five primary components of a perforating system. These components are: 1. the initiation system, 2. shaped charges, 3. detonating cord, 4. gun hardware, and 5. a control panel.



In North America's well-completion industry, perforating components traditionally have been assembled by highly trained personnel at the well site or nearby assembly facility. In 2015, DynaEnergetics began assembling its perforating systems in a controlled environment at its manufacturing facilities. The systems, marketed as DynaStage® (DS) Factory-Assembled, Performance-Assured™ perforating systems, are shipped directly to the customers' well-site or remote shop. Since 2015, DynaEnergetics has added several new DS lines to accommodate evolving industry conditions and needs.

Perforating systems such as those manufactured by DynaEnergetics are essential to oil and gas recovery. DynaEnergetics' systems are sold directly to oilfield service companies around the world. DynaEnergetics also promotes its systems technologies and value directly to end-user exploration and production ("E&P") companies who typically own and operate the wells being perforated.

The level of market activity for perforating products generally corresponds to the level of oil and gas exploration and production activity. Advancements in well designs have led to increasingly complex well completion operations, which in turn have increased the demand for high-quality and technically advanced perforating products.

Operations

The DynaEnergetics segment seeks to build on its products and technologies, as well as its sales, supply chain and distribution network. During the three years ended December 31, 2020, 2019 and 2018, the DynaEnergetics segment represented approximately 64%, 78% and 73% of our consolidated net sales, respectively. The decrease in 2020 is primarily due to the COVID-19 pandemic-related collapse in oil and gas demand and the related downturn in unconventional well completions in North America and demand for DynaEnergetics' products.

DynaEnergetics has a long and successful history of designing and producing components such as initiators, detonating cord, bi-directional boosters, shaped charges and hardware systems used in perforating systems in oil and gas, and to a lesser extent, for seismic exploration. DynaEnergetics has significantly increased its research and development investments in recent years and is focused on further development of innovative perforating products and systems.

DynaEnergetics' manufacturing facilities are located in Germany and the United States. In 2020, DynaEnergetics added two additional automated IS2™ detonator lines for a total of six lines at its facility in Troisdorf, Germany. This followed the completion in the fourth quarter of 2018 of 74,000-square feet of new manufacturing, assembly and administrative space on its existing site in Blum, Texas and the commissioning of an additional shaped charge manufacturing line at the Blum facility in

2019, for a total of three shaped charge lines. These investments expanded our global capacity for shaped charge and perforating gun production and improved our delivery and customer service capabilities in our key markets.

The capacity added by DynaEnergetics throughout 2018 and 2019 in Germany and the U.S. improved our operating efficiencies and enabled us to more effectively serve our global customer base. Capitalizing on our more efficient manufacturing footprint, DynaEnergetics ceased its operations in Tyumen, Siberia in September 2019, and during the third quarter of 2020, DynaEnergetics sold the land and buildings in Tyumen, Siberia to a third-party for \$448, which was equal to the carrying value of the assets held for sale.

Products

IS2: DynaEnergetics has been focused on the advancement of safe and selective perforating products for use in North America's shale, or onshore, unconventional, oil and gas industry. Among these products are the IS2™ Intrinsically Safe Initiating Systems, which include the IS2™ Customer Assembled (CA) detonator and the wire-free IS2 Top Fire (TF) detonator. The IS2 TF detonator is the key enabling technology in DynaEnergetics' family of DS Factory-Assembled, Performance-Assured DynaStage™ perforating systems. The IS2 detonators require a specific digital code for firing and are immune from induced currents and voltages, static electricity and high-frequency irradiation. These safety features substantially reduce the risk of unintentional detonation and enable concurrent perforating and hydraulic fracturing operations at well sites with multiple wellbores, improving operating efficiencies for customers.

Our fully integrated detonators incorporate advanced software controls and are significantly smaller than a traditional detonator and switch assembly. The IS2 CA detonator reduces by 40% the number of electrical wire connections required within each perforating gun versus traditional selective initiation systems. This reduces set-up times and significantly increases reliability.

DS Systems: Our DS Infinity™ Factory-Assembled, Performance-Assured perforating systems combine all of our advanced technologies into a preassembled perforating gun that is armed at the well site with our Plug-and-Go™ IS2 TF detonator. The IS2 TF detonator is completely wire-free, and eliminates the customary process of wiring the detonator into the perforating system at the well site. All DS systems are operated using our in-house designed Infinity™ Control Panel. The Infinity Panel is highly intuitive and allows the gun string to be safely tested and monitored throughout the pump-down operation. The system also incorporates a shot detection function resulting in significant time and cost savings. Recent design advancements to the IS2 line of initiation products enable customers to safely and reliably fire up to 100 systems and set a plug in a single run. All DS systems can be tested before going down hole using our Infinity Surface Tester, reducing the risk of lost time, mishaps, misruns and misfires due to a system fault.

During 2020, DynaEnergetics expanded the family of DS perforating systems with three new models: DS Echo™, for re-frac applications; DS Gravity™, a self-orienting system for oriented perforating; and DS LoneStar™, a single-shot system that delivers large, ultra-consistent entry holes. These added to the two DS models introduced during 2019: DS Trinity™, an ultra-compact system that features three explosive shaped charges on a single radial plane, now also available in a dual plane version providing six explosive shaped charges on two planes; and DS NLine™, an oriented systems that features several shaped charges on a lateral plane.

Shaped Charges: DynaEnergetics develops and sells a wide range of shaped charges for use in its perforating systems. Additions in 2020 included the LoneStar and EchoFrac™ charges specifically designed for sale in their respective systems. LoneStar charges deliver extreme reservoir contact and ultra-uniform entry holes, while EchoFrac charges are used in re-frac operations and have enough perforating power to penetrate two layers of casing with consistent entry hole sizes. DynaEnergetics also sells HaloFrac™ charges, which incorporate advancements in liner materials and shaped charge geometry designed to improve hydraulic fracturing performance through lower and more consistent breakdown pressures, uniform proppant placement, uniform frac clusters and higher well productivity ratios. Another line, the FracTune™ family of shaped charges, delivers uniform hole diameter in the well casing independent of shot phasing and gun positioning within the well bore. DynaEnergetics also sells the DPEX™ family of charges, which feature energetic liners. All three lines can be used with the DynaStage perforating system as well as conventional perforating gun systems across a range of gun diameters.

TCP Systems: DynaEnergetics Tubing Conveyed Perforating ("TCP") systems are customized for individual customer needs and well applications. TCP enables perforating of conventional vertical wells, as well as highly deviated and horizontal wells. These types of wells are increasingly being drilled by the off-shore industry and in applications outside the U.S. TCP tools also perforate long intervals in a single trip, which significantly improves rig efficiency. Our TCP tool range includes mechanical and hydraulic firing systems, gun releases, redundant firing heads, under-balancing devices and auxiliary

components. Our tools are designed to withstand downhole temperatures of up to 260 degrees Celsius (500 degrees Fahrenheit) for safe and quick assembly at the well site and to allow unrestricted total system length.

Setting and Ballistic Release Tools: In 2020, DynaEnergetics introduced two new products that perform critical downhole functions associated with the perforating process. DS MicroSet™ is a compact, disposable setting tool used to install the frac plugs that isolate stages in a multi-stage, unconventional oil or gas well. DS Liberator™ is a ballistic release tool that enables the wireline service company to disengage from a perforating string that has become stuck in the well bore. Collectively, these products expand DynaEnergetics' addressable market by an estimated 20%.

Plug and Abandonment: Our DynaSlot™ perforating system is designed for plug and abandonment (P&A) operations. During well abandonment, the wellbore is encased and permanently sealed so that layers of sedimentary rock, and in particular freshwater aquifers, are pressure isolated from each other and the wellbore. The DynaSlot perforating system facilitates this process by creating access to a full 360-degree area between the rock formations and the tubing and/or casing. Customers use the unique helical perforation pattern created by DynaSlot to perform cement squeeze operations that seal off the wellbore. In the fourth quarter of 2020, DynaEnergetics introduced its DPU and XPU shaped charge lines, which were designed for P&A and well remediation applications and enable perforating through two or more layers of casing and into the formation.

Mining Applications: In 2020, introduced Igneo™, a specialized initiating system for use in high-temperature mining applications. Igneo incorporates the same intrinsically safe features found in the IS2 initiating system used by the oil and gas industry.

Suppliers and Raw Materials

DynaEnergetics' product offering consists of complex components that require numerous high-end inputs. DynaEnergetics utilizes a variety of raw materials for the production of oilfield perforating and seismic products, including high-quality steel tubes, steel and copper, explosives, granulates, plastics and ancillary plastic product components. DynaEnergetics obtains its raw materials primarily from a number of different producers in Germany, other European countries, and the U.S., but also purchases materials from other international suppliers.

Competition

DynaEnergetics faces competition from independent manufacturers of perforating products and from the industry's three largest oil and gas service companies, which produce perforating systems for their own use but also buy systems and other perforating components and specialty products from independent suppliers such as DynaEnergetics. We compete for sales primarily on customer service, product quality, reliability, safety, performance, price and, in North America, our ability to provide customers with a Factory-Assembled, Performance-Assured perforating system, versus a series of components that must be assembled at a well site or nearby staging facility.

Customer Profile

DynaEnergetics' perforating and seismic products are purchased by international and U.S. oilfield service companies of all sizes working in both onshore and offshore oil and gas fields. Our customers select perforating products based on their leading performance, system compatibility and ability to address a broad spectrum of factors, including pressures and temperatures in the wellbore and geological characteristics of the targeted formation.

The customers for our energy products can be divided into five broad categories: purchasing centers of large service companies, international service companies, independent international and North America-based service companies (often referred to as "wireline" companies), E&P companies with and without their own service companies, and local resellers.

Marketing, Sales, Distribution

DynaEnergetics' worldwide marketing and sales efforts for its oilfield and seismic products are located in Troisdorf, Germany and Houston, Texas. DynaEnergetics' sales strategy focuses on direct selling, distribution through licensed distributors and independent sales representatives, education of current and prospective service-company customers about our products and technologies, and education of E&P companies about the benefits of our products and technologies in an effort to generate pull-through demand. Currently, DynaEnergetics sells its oilfield and seismic products through wholly owned affiliates in Germany, the U.S., and Canada, and through independent sales agents in other parts of the world. DynaEnergetics serves the Americas region through its network of sales and distribution centers in the United States and Canada.

DynaEnergetics also designs and manufactures customized perforating products for third-party customers according to their designs and requirements.

Research and Development

DynaEnergetics devotes substantial resources to its research and development (R&D) programs. Based predominantly in Troisdorf, Germany, the R&D team works closely with sales, product management, and operations management teams to establish priorities and effectively manage individual projects. Through its ongoing involvement in oil and gas industry trade shows and conferences, DynaEnergetics has increased its profile in the oil and gas industry. In addition to its existing shaped charge test facility, which can simulate downhole, wellbore, and reservoir pressure conditions to develop and test high performance perforating charges for both oil companies and service providers, the R&D group has a purpose-built pressure vessel which can reach 30,000 psi test pressures and be heated to up to 200 degrees Celsius (392 degrees F). This enables the R&D group to support the oil and gas industry with test methods for new products that realistically simulate potentially difficult downhole conditions. An R&D plan, which focuses on new technology, products, process support and contracted projects, is prepared and reviewed at least quarterly. R&D costs are included in our cost of products sold and were \$6,335, \$7,057, and \$5,932 for the years ended December 31, 2020, 2019 and 2018, respectively.

NobelClad

Explosion-welded cladding technology is a method for welding metals that cannot be joined using conventional welding processes, such as titanium-steel, aluminum-steel, and aluminum-copper. Explosion welding also can be used to weld compatible metals, such as stainless steels and nickel alloys to steel. The cladding metals are typically titanium, stainless steel, aluminum, copper alloys, nickel alloys, tantalum, and zirconium. The base metals are typically carbon steel, alloy steel, stainless steel and aluminum.

Clad metal plates are typically used in the construction of heavy, corrosion resistant pressure vessels and heat exchangers. Clad metal plates consist of a thin layer of an expensive, corrosion-resistant cladder metal, such as titanium or nickel alloy, which is metallurgically welded to a less expensive structural backing metal, such as carbon steel. For heavy equipment, clad plates generally provide an economical alternative to building the equipment solely of a corrosion-resistant alloy. While a significant portion of the demand for our clad metal products is driven by maintenance and retrofit projects at existing chemical processing, petrochemical processing, oil refining, and aluminum smelting facilities, new plant construction and large plant expansion projects also account for a significant portion of total demand. These industries tend to be cyclical in nature, and timing of new order inflow remains difficult to predict.

There are three major industrial clad plate manufacturing technologies: explosion welding, hot roll bonding and weld overlay. DetaClad[™], NobelClad's process-controlled explosion clad, uses explosion welding, the most versatile of the clad plate manufacturing methods. Created using a robust cold-welding technology, explosion-welded clad products exhibit high bond strength and combine the corrosion resistance or other favorable quality of the cladder material with the mechanical properties and structural strength of the lower cost backer material. The explosion welding process is suitable for joining virtually any combination of common engineered metals.

Explosion-welded clad metal is produced as flat plates or concentric cylinders, which can be further formed and fabricated into a broad range of industrial processing equipment or specialized transition joints. When fabricated properly, the two metals will not come apart, as the bond zone is generally stronger than the parent metals. The dimensional capabilities of the process are broad: cladding metal layers can range from a few thousandths of an inch to several inches in thickness and base metal thickness and lateral dimensions are primarily limited by the capabilities of the world's metal production mills.

Clad Metal End-Use Markets

Explosion-welded clad metal is primarily used in the construction of large industrial processing equipment that is subject to high pressures and temperatures and/or corrosive processes. Explosion-welded clad plates also can be cut into transition joints, which are used to facilitate conventional welding of dissimilar metals. The eight broad industrial sectors discussed below comprise the bulk of demand for NobelClad's products, with oil and gas and chemical and petrochemical constituting approximately 60% of NobelClad sales in 2020. This demand is driven by the underlying need for both new equipment and facility maintenance in these primary market sectors.

Oil and Gas: Oil and gas end use markets include both oil and gas production and petroleum refining. Oil and gas production covers a broad scope of operations related to recovering oil and/or gas for subsequent processing in refineries. Clad

metal is used in separators, glycol contractors, pipelines, heat exchangers and other related equipment. Clad equipment is also advantageous for oil and gas production from deep, hot, and more corrosive fields. The primary clad metals for the oil and gas production market are stainless steel and nickel alloys clad to steel, with some use of reactive metals such as titanium.

Petroleum refining processes frequently are corrosive and operate at high temperatures and pressures. Clad metal is extensively used in a broad range of equipment including desulfurization hydrotreaters, coke drums, distillation columns, separators and heat exchangers. Reliance upon low-quality, high-sulfur crude drives demand for new corrosion resistant equipment. Regulatory controls of sulfur emissions in gas, diesel and jet fuel also impact the need for clad equipment. Like the upstream oil and gas sector, the clad metals are primarily stainless steel and nickel alloys.

Chemical and Petrochemical: Many common products, ranging from plastics to prescription drugs to electronic materials, are produced by chemical processes. Because the production of these items often involves corrosive agents and is conducted under high pressures or temperatures, corrosion resistant equipment is needed. One of the larger applications for clad equipment is in the manufacture of purified terephthalic acid (PTA), a precursor product for polyester, which is used in products as diverse as carpets and plastic bottles. The chemical market requires extensive use of stainless steel and nickel alloys, but also uses titanium, zirconium and tantalum.

Alternative Energy: Some alternative energy technologies involve conditions that necessitate clad metals. Solar panels predominantly incorporate high purity polysilicon. Processes for manufacturing high purity silicon utilize a broad range of highly corrosion-resistant clad alloys. Many geothermal fields are corrosive, requiring high alloy clad separators to handle the hot steam. In addition, some ethanol technologies and concentrating solar power technologies may require corrosion resistant metals at thicknesses where clad is an attractive alternative.

Hydrometallurgy: The processes for production of nickel, gold, and copper involve acids, high pressures, and high temperatures, and titanium-clad plates are used extensively for construction of associated leaching and peripheral equipment such as autoclaves.

Aluminum Production: Primary aluminum is reduced from its oxide in large electric smelters called potlines. The electric current is carried via aluminum conductors. The electricity must be transmitted into steel components for the high temperature smelting operations. Aluminum cannot be welded to steel conventionally. Explosion-welded aluminum-steel transition joints provide an energy efficient and highly durable solution for making these connections. Modern potlines use a large number of transition joints, which are typically replaced after approximately five years in service. Although primary aluminum production is the major electrochemical application for NobelClad products, there are a number of other electrochemical applications including production of zinc, magnesium, chlorine and chlorate. We are seeing an increase for equipment related to processing biomass feedstocks and biofuel end products, mostly stainless and nickel alloy clad.

Shipbuilding: The combined problems of corrosion and top-side weight drive demand for our aluminum-steel transition joints, which serve as the juncture between a ship's upper and lower structures. Top-side weight is often a significant problem with tall ships, including cruise ships, naval vessels, ferries and yachts. Use of aluminum in the upper structure and steel in the lower structure provides stability. Since aluminum cannot be welded directly to steel using conventional welding processes, and since bolted joints between aluminum and steel corrode quickly in seawater, explosion-welded transition joints are a common solution.

Power Generation: Fossil fuel and nuclear power generation plants require extensive use of heat exchangers, many of which require corrosion resistant alloys to handle low quality cooling water. Our clad plates are used for heat exchanger tube sheets, and the largest clad tube sheets are used in the final low-pressure condensers. For most coastal and brackish water-cooled plants, titanium is the metal of choice, and titanium-clad tube sheets are the low-cost solution for power plant condensers.

Industrial Refrigeration: Heat exchangers are a core component of refrigeration systems. When the cooling fluid is seawater, brackish, or even slightly polluted, corrosion-resistant metals are necessary. Metal selection can range from stainless steel to copper alloy to titanium. Explosion-welded clad metal is often the low-cost solution for making the tube sheets. Applications range from refrigeration chillers on fishing boats to massive air conditioning units for skyscrapers, airports, and deep underground mines.

New Applications/Industry Development

NobelClad continues its efforts in applications and materials innovations, with the goal of expanding NobelClad's end-use markets and customer base. Examples of these efforts include the development of a new application of clad in the

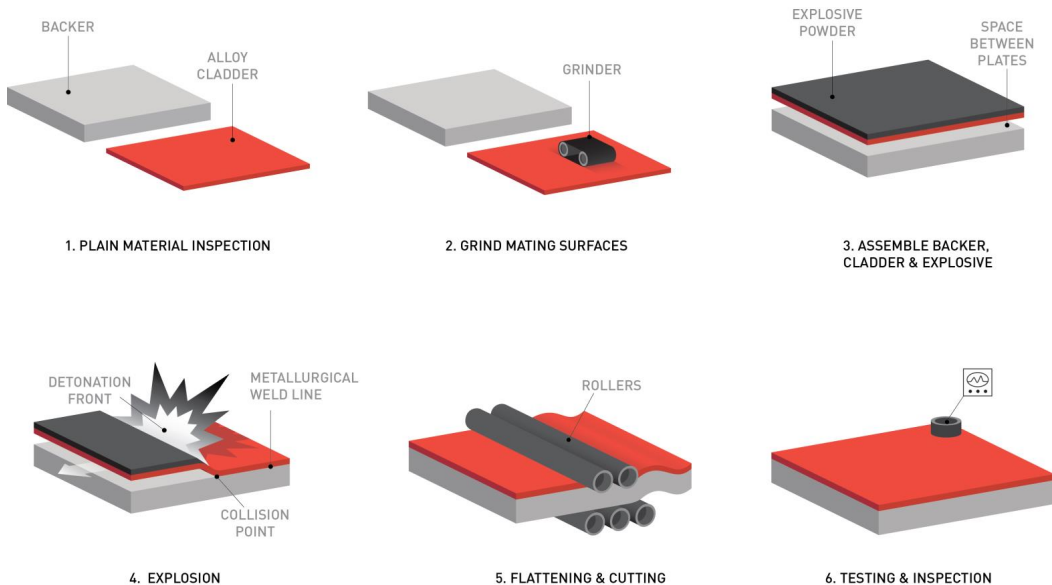
production of engineered wood, development of improved electrical transition joints for smelting applications, and structural transitions joints for automotive applications. NobelClad is also engaged in research efforts related to using clad products in concentrating solar power production facilities.

Operations

NobelClad seeks to build on its leadership position in its markets. During the three years ended December 31, 2020, 2019 and 2018, the NobelClad segment represented approximately 36%, 22% and 27% of our consolidated net sales, respectively. Our manufacturing plants and their respective shooting sites in Pennsylvania and Germany provide the production capacity to address projects for NobelClad's global customer base.

The principal product of metal cladding, regardless of the process used, is a metal plate composed of two or more dissimilar metals, usually a corrosion resistant metal (the "cladder") bonded to a steel backing plate. Prior to the explosion-welding process, the materials are inspected, the mating surfaces are ground, and the metal plates are assembled for cladding. The process involves placing a sheet of the cladder over a parallel plate of backer material and then covering the cladder with a layer of specifically formulated explosive powder. A small gap or "standoff space" is maintained between the cladder and backer using small spacers. The explosion is then initiated on one side of the cladder and travels across the surface of the cladder forcing it onto the backer. The explosion happens in approximately one-thousandth of a second. The collision conditions cause a thin layer of the mating surfaces, as well as the spacers, to be spalled away in a jet. This action removes oxides and surface contaminants immediately ahead of the collision point. The extreme pressures force the two metal components together, creating a metallurgical bond between them. The explosion welding process produces a strong, ductile, continuous metallurgical weld over the clad surface. After the explosion is completed, the resulting clad plates are flattened and cut, and then undergo testing and inspection to assure conformity with product specifications.

EXPLOSION-WELDING PROCESS



NobelClad uses proprietary processes and technology to produce high quality clad metal products and limit re-work costs. The entire explosion-welding process involves significant precision in all stages, and any errors can be extremely costly as they often result in the discarding of the expensive raw material metals. NobelClad's technological expertise helps ensure precision, minimize errors, and prevent costly waste.

NobelClad's metal products are primarily produced for custom projects and conform to requirements set forth in customers' purchase orders. Upon receipt of an order, NobelClad obtains the component materials from a variety of sources

based on quality, availability and cost and then produces the order in one of its manufacturing plants. Final products are processed to meet contract specific requirements for product configuration and quality/inspection level.

Suppliers and Raw Materials

NobelClad's operations involve a range of alloys, steels and other materials, such as stainless steel, copper alloys, nickel alloys, titanium, zirconium, tantalum, aluminum and other metals. NobelClad sources its raw materials from a number of different producers and suppliers. It holds a limited metal inventory and purchases its raw materials based on contract specifications. Under most contracts, any raw material price increases are passed on to NobelClad's customers. NobelClad closely monitors the quality of its supplies and inspects the type, dimensions, markings, and certification of all incoming metals to ensure that the materials will satisfy applicable construction codes. NobelClad also manufactures a majority of its own explosives from standard raw materials, and we believe that this allows us to achieve higher quality and lower cost.

Competition

Hot Roll Bonding and Weld Overlay. NobelClad faces competition from two primary alternative cladding technologies: hot roll bonding and weld overlay. Usually the three processes do not compete directly, as each has its own preferential domain of application relating to metal used and thicknesses required. However, specific project considerations such as technical specifications, price and delivery time, may allow these technologies to compete more directly with explosion-welding. Roll bond is only produced by a few steel mills in the world. In this process, the clad metal and base metal are bonded during the hot rolling operation in which the metal slab is converted to plate. Being a high temperature process that yields the formation of detrimental intermetallic compounds, hot roll bond is limited to joining similar metals, such as stainless steel and nickel alloys to steel. Roll bond's niche is production of large quantities of light to medium gauge clad plates. Roll bond products are generally suitable for most pressure vessel applications but have lower bond shear strength and may have inferior corrosion resistance.

The weld overlay process is used by the many vessel fabricators that are often also NobelClad customers. In weld overlay cladding, the clad metal layer is deposited on the base metal using arc-welding type processes. Weld overlay is a cost-effective technology for complicated shapes, for field service jobs, and for production of some very heavy-wall pressure vessel reactors. During overlay welding, the cladding metal and base metal are melted together at their interface. The resulting dilution of the cladding metal chemistry may compromise corrosion performance and limit use in certain applications. Weld metal shrinkage during cooling potentially causes distortion when the base layer is thin. As with roll bond, weld overlay is limited to metallurgically similar metals, primarily stainless steels and nickel alloys joined to steel. Weld overlay is typically performed in conventional metal fabrication shops.

Explosion-Welded Metal Cladding. Worldwide competition in the explosion-welded clad metal business is fragmented, and we believe that NobelClad holds a strong market position in the industry. Within North America, NobelClad is one of the largest producers of explosion-welded clad products. In Europe, its manufacturing capacity gives NobelClad a strong position against smaller competitors. In Asia, NobelClad has mixed competition ranging from competitors with strong brand names and competitive technology to other producers that are technically limited and offer minimal exports outside of their domestic markets. To remain competitive, NobelClad intends to continue developing and providing technologically advanced manufacturing services, maintaining quality levels, offering flexible delivery schedules, delivering finished products on a reliable basis and competing favorably on the basis of price.

Customer Profile

NobelClad's customers can be divided into three tiers: the product end users (e.g., operators of chemical processing plants, aluminum smelting plants), the engineering contractors that design and construct plants for end users, and the metal fabricators that manufacture the products or equipment that utilize NobelClad's metal products. It is typically the fabricator that places the purchase order with NobelClad and pays the corresponding invoice. NobelClad has developed strong relationships over the years with the engineering contractors, process licensors, and equipment operating companies that frequently act as buying agents for fabricators.

Marketing, Sales, Distribution

NobelClad conducts its selling efforts by marketing its services to potential customers' senior management, direct sales personnel, program managers, and independent sales representatives. Prospective customers in specific industries are identified through networking in the industry, cooperative relationships with suppliers, public relations, customer references, inquiries from technical articles and seminars, website inquiries, webinars, and trade shows. NobelClad's sales office in the United States

covers the Americas and Asia. Its sales offices in Europe cover the full European continent, Africa, the Middle East, India, Asia, and Russia. NobelClad also has sales offices in South Korea, Singapore and China to address these markets and uses contract agents to cover various other countries. Contract agents typically work under multi-year agreements which are subject to sales performance targets as well as compliance with NobelClad quality, customer service and compliance expectations. By maintaining relationships with its existing customers, developing new relationships with prospective customers, and educating all its customers as to the technical benefits of NobelClad's products, NobelClad endeavors to assist in setting standard specifications, both by our customers and the American Society of Mechanical Engineers and ASTM, to ensure that the highest quality and reliability are achieved.

NobelClad's products are generally shipped from its manufacturing locations in the United States and Germany. Any shipping costs or duties for which NobelClad is responsible typically will be included in the price paid by the customer. Regardless of where the sale is booked, NobelClad will produce it, capacity permitting, at the location closest to the delivery place. In the event that there is a short-term capacity issue at one facility, NobelClad can produce the order at its other production site, prioritizing timing. The two production sites allow NobelClad to meet customer production needs in a timely manner.

Research and Development

We prepare a formal research and development plan annually. It is implemented at our cladding sites and is supervised by a technical committee that reviews progress quarterly and meets once a year to establish the plan for the following 12 months. The research and development projects concern process support, new products, new applications, and special customer-paid projects.

Corporate History and Recent Developments

The genesis of the Company was an unincorporated business called "Explosive Fabricators," which was formed in Colorado in 1965. The business was incorporated in Colorado in 1971 under the name "E. F. Industries, Inc.," which was later changed to "Explosive Fabricators, Inc." The Company became publicly traded in 1976. In 1994, it changed its name to "Dynamic Materials Corporation." The Company reincorporated in Delaware in 1997.

From 1976, the Company operated as a licensee of DetaClad, the explosion-welded clad process developed by DuPont in 1959. In 1996, the Company purchased the DetaClad operating business from DuPont.

In 2001, the Company acquired substantially all of the stock of NobelClad Europe SA, a French company ("NobelClad Europe"), which had also been a licensee of the DetaClad technology. The acquisition of NobelClad Europe expanded the Company's explosive metalworking operations to Europe.

In 2007, the Company acquired the German company DynaEnergetics GmbH and Co. KG ("DynaEnergetics") and certain affiliates. DynaEnergetics was comprised of two primary businesses: explosive metalworking and energy products. This acquisition expanded the Company's explosive metalworking operations in Europe and added a complementary energy products business.

In 2013, the Company branded its explosive metalworking operations under the single name NobelClad. The NobelClad segment is comprised of the Company's U.S. clad operations as well as the explosion metalworking assets and operations purchased in the NobelClad Europe and DynaEnergetics acquisitions. In 2014, the Company re-branded the energy products segment as DynaEnergetics.

In 2014, the Company acquired a modern manufacturing and office complex in Liebenscheid, Germany. The facility enhances NobelClad's manufacturing capabilities and serves as a state-of-the-art production and administrative resource for NobelClad's European operations and also serves as a production resource for DynaEnergetics.

In 2016, the Company changed its name to DMC Global Inc. to reflect that we are a diversified portfolio of technical product and process businesses serving niche markets around the world.

In 2018, NobelClad completed the consolidation of its European explosion-welding operations into its manufacturing facility in Liebenscheid, Germany. DynaEnergetics expanded its North American operations, adding 74,000 square feet of manufacturing, assembly and administrative space on its Blum, Texas campus.

In 2019, DynaEnergetics completed a series of capacity expansion initiatives at its manufacturing facilities in North America and Germany. Capitalizing on its more efficient manufacturing footprint, DynaEnergetics ceased its operations in Tyumen, Siberia, and during the third quarter of 2020, DynaEnergetics sold the land and buildings in Tyumen, Siberia to a third-party. Additionally in 2019, the Company internally restructured its European entities and simplified its legal structure. The new structure took effect on January 1, 2020, and reduces the number of legal entities, minimizes complexity and enables the Company to reduce its annual compliance and administration costs and manage global tax reform more effectively.

Human Capital

DMC empowers its people and organizations by institutionalizing entrepreneurship and celebrating ingenuity. We seek to foster local innovation versus centralized control, and stand behind our businesses in ways that truly add value. Our culture is based on four core values:

- Integrity - We stand by our word and own our decisions. We are fair in how we treat customers, peers, partners and the communities we work in. We treat our company like it's our own.
- Courage - We are entrepreneurs, with the courage to act when we see something that needs doing. We believe in pursuing the right path forward, even if it's the most difficult one.
- Teamwork - We believe being a part of one team, one community. We count on each other to do our part. We stand by one another when things are tough, learning from our failures and celebrating together when we get the job done.
- Humility - We believe that inspiration can come from anywhere and remain open to new ideas. We are proud of our work and how it helps our customers, but are never boastful.

DMC aligns to provide all employees with a supportive work environment and the opportunity to improve their skills and advance their careers. Our culture is reflected in our inclusive and thriving workplace. We believe every employee deserves an environment in which they are treated with dignity and respect, and their voices are heard. We support diversity within our workforce, and respect and embrace the different backgrounds, experiences, cultures and perspectives our employees bring to DMC.

As of December 31, 2020, we had 531 permanent and part-time employees (320 U.S. and 211 non-U.S.), the majority of whom are engaged in manufacturing operations, with the remainder primarily in sales, marketing and administrative functions. None of our manufacturing employees are unionized. In addition, we use a number of temporary workers at any given time, depending on the workload. We currently believe that employee relations are good.

Compensation and Benefits. Our compensation and benefits teams strive to develop and implement policies and programs that are fair to employees, support our business goals, maintain competitiveness, and promote shared fiscal responsibility among the Company and our employees. We offer employees benefits that vary by country and are designed to meet or exceed local laws and to be competitive in the marketplace. Examples of benefits offered in the U.S. include traditional and Roth 401(k) plans with matching employer contributions; health benefits; life and disability insurance; additional voluntary insurance; paid counseling assistance; paid time off and parental leave; and a tuition reimbursement program. We also sponsor an employee stock purchase plan to encourage employees to acquire an ownership stake in DMC.

Health and Safety. The health and safety of our employees is fundamental to our success. Our occupational health and safety ("OH&S") management system is focused on maintaining a strong safety culture, stringent risk management and effective leadership. DMC's occupational health and safety management system covers all employees regardless of employment type, and is aligned with standards requirements of ISO 45001:2018. During the COVID-19 pandemic, the health and safety of our employees remained our top priority. Steps we have taken to ensure employee safety include regular deep cleaning our facilities, providing personal protective equipment to our employees, restricting business travel and site visitors, redesigning our office and manufacturing layouts and workspaces and encouraging hygiene and quarantine practices advised by health authorities. We continue to monitor and adjust our policies and practices to remain aligned with federal, state, local and international regulations and guidelines.

Diversity and Inclusion. We believe that we will be most successful with a diverse employee population and encourage hiring and promotion practices that focus on the best talent and the most effective performers. Because we operate a global business across multiple business segments, products and service areas, we believe it is especially important that we attract employees with diverse backgrounds and the capability to address customer needs across the numerous cultures in the countries

in which we operate. Our commitment to diversity and inclusion starts at the top with a highly skilled and diverse Board of Directors. We plan to develop and adopt a formal diversity and inclusion program in 2021.

Employee Development. DMC strives to identify top talent within the Company, and to provide opportunities for employees to progress to higher levels within the organization. We seek to maximize each employee's developmental potential through a combination of training and experience.

Ethics. Our directors and all employees, including senior management, conduct themselves in accordance with the highest professional and ethical standards, informed by a robust Code of Ethics and Business Conduct (the "Code"). We are committed to ensuring a fair workplace for our employees as well as partners with whom we do business. We have strict policies to protect against unlawful discrimination and harassment, and a Compliance Hotline that provides an alternative and anonymous method of reporting suspected violations of the Code, DMC's corporate policies or applicable laws.

Government Regulations

DMC is subject to numerous environmental, legal and other governmental and regulatory requirements related to its operations worldwide. For additional details, see "Item 1(a). Risk Factors—Legal and Regulatory Risks", which is incorporated by reference in this Item 1.

Insurance

Our operations expose us to potential liabilities for property damage and personal injury or death as a result of the failure of a component that has been designed, manufactured, serviced, processed, or distributed by us. We maintain liability insurance that we believe adequately protects us from potential product losses and liability claims.

Intellectual Property

We hold a variety of intellectual property through our DynaEnergetics business including but not limited to patents, patent applications, registered and unregistered trademarks, trade secrets, proprietary information and know-how. We have followed a policy of seeking patent and trademark protection in countries and regions throughout the world for products and methods that appear to have commercial significance. DynaEnergetics seeks and holds numerous patents covering various products and processes, including but not limited to perforating guns and their various components, shaped charges, packaging of explosive materials, detonating cord, initiating systems and electronics and tool offerings.

We hold a variety of intellectual property through our NobelClad business, including but not limited to patent applications, proprietary information and know-how, trade secrets, and registered and unregistered trademarks. Much of our proprietary manufacturing expertise lies in the knowledge of the factors that affect the quality of the finished clad product, including the types of metals to be explosion-welded, the setting of the explosion, the composition of the explosive, and the preparation of the plates to be bonded. We have developed this specialized knowledge over our 40 years of experience in the explosive metalworking business.

No single patent or trademark is considered to be critical to either DynaEnergetics' or NobelClad's businesses.

We are careful in protecting our proprietary know-how and manufacturing expertise in both DynaEnergetics and NobelClad, and we have implemented measures and procedures designed to ensure that the information remains confidential.

Foreign and Domestic Operations and Export Sales

All of our sales are shipped from our manufacturing facilities and distribution centers located in the United States, Germany, and Canada. The following chart represents our net sales based on the geographic location to where we shipped the product, regardless of the country of the actual end user. NobelClad products are usually shipped to the fabricator before being passed on to the end user.

The following represents our net sales based on the geographic location of the customer for years noted:

	(Dollars in Thousands)		
	For the years ended December 31,		
	2020	2019	2018
United States	\$ 149,214	\$ 309,826	\$ 221,847
Canada	10,428	17,688	30,126
India	7,236	1,831	4,291
Germany	5,704	4,900	4,067
China	5,390	28	12,503
United Arab Emirates	4,848	6,614	4,093
Egypt	3,453	3,366	2,419
Iraq	3,287	1,104	314
France	2,904	3,643	4,581
Spain	2,670	1,706	1,083
Australia	2,667	2,151	873
Norway	2,583	5,003	990
Oman	2,551	3,197	2,112
South Korea	1,972	2,964	2,263
Netherlands	1,850	2,181	2,427
Indonesia	1,832	1,934	1,201
Kuwait	1,716	1,068	2,014
Ukraine	1,591	3,824	3,594
Sweden	1,569	2,016	2,339
Italy	1,220	967	1,730
Belgium	1,213	2,365	3,386
Malaysia	1,079	871	1,063
Algeria	1,068	645	1,630
Pakistan	876	850	364
Singapore	870	6	73
Bahrain	669	1,820	1,065
Taiwan	588	565	20
Rest of the world	8,113	14,417	13,961
Net sales	\$ 229,161	\$ 397,550	\$ 326,429

Company Information

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). We therefore file periodic reports, proxy statements and other information with the Securities Exchange Commission (the "SEC"). The SEC maintains an Internet site at www.sec.gov that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our Internet address is www.dmcglobal.com. Information contained on our website does not constitute part of this Annual Report on Form 10-K. Our annual report on SEC Form 10-K, quarterly reports on Forms 10-Q, current reports on Forms 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge on our website as soon as reasonably practicable after we electronically file such material with or furnish it to the SEC. We also regularly post information about our Company on our website under the "Investors" tab.

ITEM 1A. Risk Factors

Please carefully consider the following discussion of material factors, events, and uncertainties that make our business and an investment in our securities subject to risk. The events and consequences discussed in these risk factors could, in

circumstances we may or may not be able to accurately predict, recognize, or control, have a material adverse effect on our business, growth, reputation, prospects, financial condition, operating results (including components of our financial results), cash flows, liquidity, and stock price. These risk factors do not identify all risks that we face; our operations could also be affected by factors, events, or uncertainties that are not presently known to us or that we currently do not consider to present significant risks to our operations.

Risk Factors Related to DynaEnergetics

Demand for DynaEnergetics' products is substantially dependent on the levels of expenditures by the oil and gas industry. Decreases or expected decreases in oil and gas prices and reduced expenditures in the oil and gas industry could have a material adverse impact on our financial condition, results of operations and cash flows.

Demand for the majority of our products depends substantially on the level of expenditures by the oil and gas industry for the exploration, development and production of oil and natural gas reserves. These expenditures are generally dependent on the industry's view of future oil and natural gas prices and are sensitive to the industry's view of future economic growth and the resulting impact on demand for oil and natural gas. Continued low oil and gas prices have resulted in reduced North American completion activity and lower expenditures by the oil and gas industry. This has resulted in reduced cash flows for our customers, which are further exacerbated by the increasing pressure being placed on E&P companies by investors to reduce their cost of operations. If these trends continue or worsen, we would expect continued reduced or delayed oil and gas exploration and production spending, project modifications, delays or cancellations, general business disruptions, and delays in payment of, or nonpayment of, amounts that are owed to us, all of which could result in reduced demand for our products, downward pressure on selling prices for our products and decreased revenues and profits. These effects have had, and will likely continue to have, a material adverse effect on our financial condition, results of operations and cash flows.

The prices for oil and natural gas have historically been volatile and can be affected by a variety of factors, including:

- changes in the supply of and demand for hydrocarbons, which are affected by general economic, business and regulatory conditions;
- the ability or willingness of the Organization of Petroleum Exporting Countries ("OPEC") and other oil producing companies to set and maintain production levels for oil;
- oil and gas production levels in the U.S. and by other non-OPEC countries;
- the level of excess production capacity;
- speculation as to the future price of oil and the speculative trading of oil and natural gas futures contracts;
- government initiatives to restrict oil and gas drilling or development or promote the use of renewable energy sources and public sentiment regarding the same;
- political and economic uncertainty and geopolitical unrest;
- the level of worldwide oil and gas exploration and production activity;
- access to potential resources;
- changes in governmental policies and subsidies;
- the costs of exploring for, producing and delivering oil and gas;
- technological advances affecting energy consumption; and
- weather conditions.

The oil and gas industry has historically been extremely cyclical. However, there can be no assurance that the demand or pricing for oil and natural gas or for our products and services will follow historic patterns or recover meaningfully in the near or medium term. Continued or worsening conditions in the oil and gas industry generally may have a further material adverse effect on our business, financial condition, results of operations, cash flows and prospects.

Failure to adjust our manufacturing and supply chain to accurately meet customers demand could have a material adverse effect on our results of operations.

We make significant decisions, including determining the levels of business that we will seek and accept, production schedules, levels of reliance on contract manufacturing and outsourcing, internal fabrication utilization and other resource requirements, based on our estimates of customer requirements. Factors that can impact our ability to accurately estimate future customer requirements include the short-term nature of many customers' commitments, our customers' ability to reschedule, cancel and modify orders with little or no notice and without significant penalty, the accuracy of our customers' forecasts, and seasonal or cyclical trends in customers' industries.

To ensure availability of our products, particularly for our largest customers, we may start manufacturing our relevant products based on our customers' forecasts, which are not binding. As a result, we incur inventory and manufacturing costs in advance of anticipated sales that may never materialize or which may be substantially lower than expected. If actual demand for our products is lower than forecast, we may also experience higher inventory carrying and operating costs and product obsolescence. Because certain of our sales, research and development, and internal manufacturing overhead expenses are relatively fixed, a reduction in customer demand may also decrease our gross margin and operating income.

Conversely, customers often require rapid increases in production on short notice. We may be unable to secure sufficient materials or contract manufacturing capacity to meet such increases in demand. This could damage our customer relationships, reduce revenue growth and margins, subject us to additional liabilities, harm our reputation, and prevent us from taking advantage of opportunities.

Failure to manage periods of growth or contraction may seriously harm our business.

Our industry frequently sees periods of expansion and contraction which require companies to adjust to customers' needs and market demands. We regularly contend with these issues and must carefully manage our business to meet customer and market requirements. If we fail to manage these growth and contraction decisions effectively, we may find ourselves with either excess or insufficient resources and our business and our profitability could suffer as a result.

Periods of contraction or reduced net sales, or other factors negatively affecting particular markets require us to assess whether facilities remain viable, whether staffing levels need to be reduced, and how to respond to changing levels of customer demand. While maintaining excess capacity or higher levels of employment entails short-term costs, reductions in capacity or employment could impair our ability to respond to new opportunities and programs, market improvements or to maintain customer relationships. Our decisions to reduce costs and capacity can affect our short-term and long-term results and result in restructuring charges.

Expansions, including the transfer of operations to other facilities or the construction of new manufacturing facilities, include the risk of additional costs and start-up inefficiencies. If we are unable to effectively manage our expansion projects or related anticipated net sales are not realized, our operating results could be materially adversely affected. Risks of future expansions include:

- difficulties in the timing of expansions, including delays in the implementation of construction and manufacturing plans;
- the inability to successfully integrate additional facilities or incremental capacity and to realize anticipated efficiencies, economies of scale or other value;
- challenges faced as a result of transitioning programs;
- additional fixed or other costs, or selling, general and administrative ("SG&A") expenses, which may not be fully absorbed by the new business;
- a reduction of our return on invested capital, including as a result of excess inventory or excess capacity at new facilities;
- diversion of management's attention from other business areas during the planning and implementation of expansions;
- increased debt levels and borrowing costs;
- strain placed on our operational, financial and other systems and resources; and
- inability to locate sufficient employees or management talent to support the expansion.

Consolidation of our customers and competitors may impact our results of operations.

The oil and gas industry has experienced periods of consolidation in the past, and we expect consolidations to increase as the industry deals with the impacts of the COVID-19 pandemic and the resulting impacts on oil and gas supply and demand. Industry consolidation may result in reduced capital spending by some of our customers, the loss of customers, or consolidated entities using size and purchasing power to seek pricing or other concessions, which may lead to decreased demand for our products. In addition, recent, pending and future mergers, combinations and consolidations amongst our competitors could result in existing competitors increasing their market share or improving their relative financial strength, which may result in stronger competitors. As a result, industry consolidation may have a significant negative impact on our results of operations, financial position or cash flows.

We may not be able to continue to compete successfully against other companies in our industry.

The markets in which we operate are highly competitive. DynaEnergetics competes with a broad spectrum of companies that produce and market perforating services and products. Many of these companies are large national and multi-national companies, including the oil and natural gas industry's largest oilfield service providers. These companies have longer operating histories, greater financial, technical, and other resources, and greater name recognition than we do. In addition, we compete with many smaller companies capable of competing effectively on a regional or local basis. Our competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements. To remain competitive, DynaEnergetics must continue to provide innovative products and maintain an excellent reputation for value, quality, on-time delivery, and safety. If we fail to compete successfully against our competition, we may be unable to maintain acceptable sales levels, prices and margins for our products, which could have a material adverse effect on our business, financial condition, and results of operations.

If we are not able to design, develop, and produce commercially competitive products in a timely manner in response to changes in the market, customer requirements, competitive pressures, and technology trends, our business and consolidated results of operations and the value of our intellectual property could be materially and adversely affected.

The market for our products is characterized by continual technological developments to provide better and more reliable performance and enhanced product offerings. If we are not able to design, develop, and produce commercially competitive products in a timely manner in response to changes in the market, customer requirements, competitive pressures, and technology trends, our business and consolidated results of operations and the value of our intellectual property could be materially and adversely affected. Likewise, if our proprietary technologies, equipment, facilities, or work processes become obsolete, we may no longer be competitive, and our business and consolidated results of operations could be materially and adversely affected.

Risk Factors Related to NobelClad

NobelClad's business is dependent on sales to a limited number of customers in cyclical markets and our results are affected by the price of metals.

NobelClad revenues are affected both by the demand for NobelClad's explosion-welded cladding services and the base price of metal used in explosion-welded cladding operations. The explosion-welded cladding market is dependent upon sales of products for use by customers in a limited number of heavy industries, including oil and gas, chemicals and petrochemicals, alternative energy, hydrometallurgy, aluminum production, shipbuilding, rail car manufacturing, power generation, and industrial refrigeration. These industries tend to be cyclical in nature and an economic slowdown in one or all of these industries-whether due to traditional cyclicity, general economic conditions or other factors-could impact capital expenditures within that industry. In addition, metals prices affect the demand for cladded products and our margins. Higher metal prices increase demand by making it more economical for customers to use cladding on less-expensive metal than using solid metal plates. Higher metal prices also lead to higher sales (in terms of dollars rather than square meters of cladding) and generally higher margins for NobelClad. We have experienced a significant decline in the demand for clad products in recent years due in part to a low-metals price environment. If demand or metals prices do not increase or decline further, our sales would be adversely affected, which could have a material adverse effect on our business, financial condition, and results of operations.

Our backlog figures may not accurately predict future sales.

We use backlog to predict our anticipated future sales. Our year-end backlog was \$39.9 million, \$31.7 million, and \$29.9 million at the end of fiscal years 2020, 2019 and 2018, respectively. We define "backlog" at any given point in time to consist of all firm, unfulfilled purchase orders and commitments at that time. We expect to fill most items of backlog within the following 12 months. However, since orders may be rescheduled or canceled and a significant portion of our net sales is derived from a small number of customers, backlog is not necessarily indicative of future sales levels. Moreover, we cannot be sure of when during the future 12-month period we will be able to recognize revenue corresponding to our backlog nor can we be certain that revenues corresponding to our backlog will not fall into periods beyond the 12-month horizon.

There is a limited availability of sites suitable for cladding operations.

Our cladding process involves the detonation of large amounts of explosives. As a result, the sites where we perform cladding must meet certain criteria, including adequate distance from densely populated areas, specific geological characteristics, and the ability to comply with local noise and vibration abatement regulations in conducting the process. Our shooting sites in Pennsylvania and in Dillenburg, Germany are located in mines. Access to our Dillenburg mine is subject to a lease that expires in 2022, and if we are unable to negotiate a suitable extension of the lease, this could impact our operations. If a mine were seriously damaged, we might not be able to locate a suitable replacement site in a timely manner to continue our

operations. In addition, our Pennsylvania shooting site is subleased under an arrangement pursuant to which we provide certain contractual services to the sub-landlord. The efforts to identify alternative suitable sites and obtain permits for using the sites from local government agencies can be time-consuming and may not be successful. In addition, we could experience difficulty in obtaining or renewing permits because of resistance from residents in the vicinity of existing or proposed sites. The failure to obtain required governmental approvals or permits could limit our ability to expand our cladding business in the future, and the failure to maintain such permits or satisfy other conditions to use the sites would have a material adverse effect on our business, financial condition and results of operations.

There is no assurance that we will continue to compete successfully against other manufacturers of competitive products.

Our explosion-welded clad products compete on a worldwide basis with explosion-welded clad products made by other manufacturers in the clad metal business and with products manufactured using other technologies. We see competition from one large well-known clad supplier and from a growing number of smaller companies with explosion welded clad manufacturing capability in China and India. Explosion-welded clad products also compete with products manufactured by roll bond and weld overlay cladding processes. The technical and commercial niches of each cladding process are well understood within the industry and vary from one world market location to another and at different metal prices. We focus on reliability, product quality, on-time delivery performance, and low-cost manufacturing to minimize the potential of future competitive threats. However, there is no guarantee we will be able to maintain our competitive position.

Customers have the right to change orders until products are completed.

Customers have the right to change orders after they have been placed. If orders are changed, the extra expenses associated with the change usually will be passed on to the customer. However, because a change in an order may delay completion of the project, recognition of income for the project may also be delayed. Additionally, any errors or changes as to specifications or significant changes in pricing or availability of materials may cause cost overruns and delays in completion of projects. If we fail to meet delivery schedules, we may be required to pay damages or may risk loss of an order, which could have a material adverse effect on our business, financial condition and results of operations.

We do not maintain a reserve fund for warranty or defective products claims. Our costs could substantially increase if we experience a large claim or a significant number of warranty claims.

Our product warranties against technical defects of our clad products vary depending on our purchase orders with customers. The warranties require us to repair or replace defective products and may require the payment of a certain percentage of the purchase price as liquidated damages for our failure to meet the specified product specifications and delivery requirements. In addition, our clad products are often used as part of larger projects or are used in potentially hazardous applications that can cause injury or loss of life and damage to property or equipment. In the event of an actual or alleged product defect, we may be named as a defendant in product liability or other lawsuits asserting potentially large claims. We cannot guarantee that insurance will be available or adequate to cover any or all liabilities incurred. We have not established any reserve funds for potential warranty claims since historically we have experienced few warranty claims for our products and the costs associated with our warranty claims have been low. If we experience an increase in warranty claims or if our repair and replacement costs associated with warranty claims increase significantly, it could have a material adverse effect on our financial condition and results of operations.

Risk Factors Related to our Businesses Generally

The COVID-19 pandemic and related economic impacts have had, and are likely to continue to have, a material adverse effect on our financial condition, results of operations and cash flows.

The effects of the COVID-19 pandemic, including actions taken by businesses and governments to contain the spread of the virus, have resulted in a significant reduction in international and US economic activity. In the oil and gas industry, geopolitical events that increased the supply of low priced oil to the global market occurred at the same time that demand weakened due to the worldwide effects of the pandemic, leading to a collapse in oil prices in March 2020. These events together adversely affected the demand for oil and natural gas and caused significant volatility and disruption of the global financial markets. These impacts affected the demand for DynaEnergetics' products and significantly delayed certain NobelClad projects and orders. Other effects of the pandemic have included, and may continue to include, adverse revenue and net income effects; customer shutdowns of oil and gas exploration and production activities; downward revisions to customer budgets; limitations on access to sources of liquidity; supply chain disruptions, employee impacts from illness, school closures and other community response measures; workforce fluctuations in response to activity declines and increases; and temporary closures of our

facilities or the facilities of our customers and suppliers. This period of extreme economic disruption, low oil prices and reduced demand for our products has had, and is likely to continue to have, a material adverse effect on our financial condition, results of operations and cash flows.

The extent to which our operating and financial results will continue to be affected by the COVID-19 pandemic will depend on various factors and consequences beyond our control, such as the duration and scope of the pandemic; additional actions by businesses and governments in response to the pandemic; and the speed and effectiveness of responses to combat the virus, including vaccine distribution. COVID-19, and the volatile regional and global economic conditions stemming from the pandemic, could also aggravate our other risk factors described in this Form 10-K.

Our operations are subject to political and economic instability and risk of government actions that could have a material adverse effect on our business, consolidated results of operations, and consolidated financial condition.

We are exposed to risks inherent in doing business in each of the countries in which we operate. Our operations are subject to various risks unique to each country that could have a material adverse effect on our business, consolidated results of operations, and consolidated financial condition. With respect to any particular country, these risks may include:

- political, social and economic instability;
- civil unrest, acts of terrorism, force majeure, war, other armed conflict, and sanctions;
- public health crises and catastrophic events, such as the COVID-19 pandemic;
- inflation;
- currency fluctuations, devaluations, conversion, or repatriation restrictions; and
- expropriation and nationalization of our assets;
- confiscatory taxation or other adverse tax policies;
- theft of, or lack of sufficient legal protection for, proprietary technology and other intellectual property;
- limitations on extraction of shale gas or oil using hydraulic fracturing;
- limitations or disruptions to our markets or operations, restrictions on payments, or limitations on the movement of funds;
- increased tariffs;
- trade and economic sanctions or other restrictions;
- unexpected changes in legal and regulatory requirements, including changes in interpretation or enforcement of existing laws;
- deprivation of contract rights; and
- the inability to obtain or retain licenses required for operation.

Our operating results fluctuate from quarter to quarter.

We have experienced, and expect to continue to experience, fluctuations in annual and quarterly operating results caused by various factors at both NobelClad and DynaEnergetics. At NobelClad, quarterly sales and operating results depend on the volume and timing of the orders in our backlog as well as bookings during the quarter. At DynaEnergetics, the level of demand from our customers is impacted by oil and gas prices as well as a variety of other factors and can vary significantly from quarter to quarter. Significant portions of our operating expenses are fixed, and planned expenditures are based primarily on sales forecasts and product development programs. If sales do not meet our expectations in any given period, the adverse impact on operating results may be magnified by our inability to adjust operating expenses sufficiently or quickly enough to compensate for such a shortfall. Results of operations in any period should not be considered indicative of the results for any future period. See "Management's Discussion and Analysis of Financial Condition and Results of Operations." Fluctuations in operating results may also result in fluctuations in the price of our common stock.

We are exposed to potentially volatile fluctuations of the U.S. dollar (our reporting currency) against the currencies of many of our operating subsidiaries.

Many of our operating subsidiaries conduct business in euros, Canadian dollars, or other foreign currencies. Sales made in currencies other than U.S. dollars accounted for 17%, 12%, and 21% of total sales for the years ended 2020, 2019 and 2018, respectively. Any increase (decrease) in the value of the U.S. dollar against any foreign currency that is the functional currency of any of our operating subsidiaries will cause us to experience foreign currency translation (gains) losses with respect to amounts already invested in such foreign currencies. In addition, our company and our operating subsidiaries are exposed to foreign currency risk to the extent that we or they enter into transactions denominated in currencies other than our or their respective functional currencies. For example, DynaEnergetics Europe's functional currency is euros, but its sales often occur in U.S. dollars. Changes in exchange rates with respect to these items will result in unrealized (based upon period-end exchange rates) or realized foreign currency transaction gains and losses upon settlement of the transactions. In addition, we are exposed

to foreign exchange rate fluctuations related to our operating subsidiaries' assets and liabilities and to the financial results of foreign subsidiaries and affiliates when their respective financial statements are translated into U.S. dollars for inclusion in our Consolidated Financial Statements. Cumulative translation adjustments are recorded in accumulated other comprehensive income (loss) as a separate component of equity. Our primary exposure to foreign currency risk is the euro, due to the percentage of our U.S. dollar revenue that is derived from countries where the euro is the functional currency. We use foreign currency forward contracts, generally with maturities of one month, to offset foreign exchange rate fluctuations on certain foreign currency denominated asset and liability account balances. These hedge transactions relate to our operating entities with significant economic exposure to transactions denominated in currencies other than their functional currency. Our primary economic exposures include the U.S. dollar to the euro, the U.S. dollar to the Canadian dollar, and the euro to the U.S. Dollar. Since the underlying balance sheet account balances being hedged can fluctuate significantly throughout our monthly hedge periods, our hedging program cannot fully protect against foreign currency fluctuations.

Disruptions or delays involving our suppliers or increases in prices for the components, raw materials and parts that we obtain from our suppliers could have a material adverse effect on our business and consolidated results of operations.

Our operations are dependent upon the continued ability of our suppliers to deliver the components, raw materials and parts that we need to manufacture our products. In some instances, we purchase components, raw materials and parts that are ultimately derived from a single source and may be at an increased risk for supply disruptions. Any number of factors, including labor disruptions, military activity, catastrophic weather events, the occurrence of a pandemic or other widespread illness (such as COVID-19), contractual or other disputes, unfavorable economic or industry conditions, transportation disruptions, delivery delays or other performance problems or financial difficulties or solvency problems, could disrupt our suppliers' operations and performance, which could, in turn, lead to uncertainty in our supply chain or cause supply disruptions for us and disrupt our operations. Although we have been able to manage supply chain impacts through the COVID-19 pandemic, we have been experiencing longer lead times for certain materials. Continued or increasing lockdown orders or a prolonged period of travel, commercial and other similar restrictions could cause additional global supply disruptions. If we experience further supply disruptions, we may not be able to develop alternate sourcing quickly. Any disruption of our production schedule caused by an unexpected shortage of components, raw materials or parts even for a relatively short period of time could cause us to alter production schedules or suspend production entirely, which would adversely affect our business and results of operations.

The terms of our indebtedness contain a number of restrictive covenants, the breach of any of which could result in acceleration of payment of our credit facilities.

As of December 31, 2020, we had an outstanding balance of approximately \$11.8 million on our syndicated credit agreement. This agreement includes various covenants and restrictions and certain of these relate to the incurrence of additional indebtedness and the mortgaging, pledging or disposing of major assets. We are also required to maintain certain financial ratios on a quarterly basis. A breach of any of these covenants could impair our ability to borrow and could result in acceleration of our obligations to repay our debt, if we are unable to obtain a waiver or amendment from our lenders. In June 2020, we entered into an amendment to our credit facility that, among other things, waived our debt service coverage ratio for the quarters ending September 30, 2020, December 31, 2020 and March 31, 2021. As of December 31, 2020, we were in compliance with all financial covenants and other provisions of the credit agreement, as amended, and our other loan agreements. Any failure to remain in compliance with any material provision or covenant of our credit agreement could result in a default, which would, absent a waiver or amendment, require immediate repayment of outstanding indebtedness under our credit facilities.

We are dependent on a relatively small number of large projects and customers for a significant portion of our net sales.

A significant portion of our net sales is derived from a relatively small number of projects and customers; therefore, the failure to complete existing contracts on a timely basis, to receive payment for such services in a timely manner, or to enter into future contracts at projected volumes and profitability levels could adversely affect our ability to meet cash requirements exclusively through operating activities. We attempt to minimize the risk of losing customers or specific contracts by continually improving commercial execution and product quality, delivering product on time and competing aggressively on the basis of price. We expect to continue to depend upon our principal customers for a significant portion of our sales, although our principal customers may not continue to purchase products and services from us at current levels, if at all. The loss of one or more major customers or a change in their buying patterns could have a material adverse effect on our business, financial condition, and results of operations.

If our customers delay paying or fail to pay a significant amount of our outstanding receivables, it could have a material adverse effect on our liquidity, consolidated results of operations, and consolidated financial condition.

We depend on a limited number of significant customers, and the loss of one or more significant customers or the failure of a customer to pay outstanding amounts due could have a material adverse effect on our business and our consolidated results of operations. In most cases, we bill our customers for our services in arrears and are, therefore, subject to the risk that our customers will delay payment of or fail to pay our invoices. In weak economic environments, we may experience increased delays and failures due to, among other reasons, a reduction in our customers' cash flow from operations and their access to the credit markets and rising interest rates. If our customers delay paying or fail to pay us a significant amount of our outstanding receivables, it could have a material adverse effect on our liquidity, consolidated results of operations, and consolidated financial condition.

We are susceptible to the cyclical nature of the steel industry.

Steel plate and steel pipe are key materials used in our NobelClad and DynaEnergetics' businesses. The steel industry is very cyclical and is affected significantly by supply and demand factors, general economic conditions and other factors such as worldwide production capacity, fluctuations in steel imports/exports, tariffs and quotas. Continued low metals prices over the last ten years have had an adverse effect on the U.S. steel industry and on our NobelClad business, and future economic uncertainty or a prolonged period of stagnation in the economy could have a material adverse effect on our business, financial condition, and results of operations.

Tariffs imposed by the U.S. government and related counter tariffs have increased our costs, limited the availability of metals and may lead to further trade conflicts.

In 2018, the U.S. announced tariffs of 25 percent on steel and 10 percent on aluminum imported from countries where we typically source metals. These tariffs were met with retaliatory tariffs from certain countries and increased, broader tariffs were levied by the U.S. on targeted countries, including China. The tariffs impacted the cost of the importation of steel, which we utilize in our steel plate and steel pipe, key materials in our NobelClad and DynaEnergetics businesses. Though in many cases we have been able to source metals from domestic suppliers, some materials are only available from sources subject to tariffs. The cost of domestic steel and aluminum has also increased, along with the price of delivery, and the availability of certain materials has been limited. These increased costs have increased the price of our products to our customers and, in some instances, affected our ability to be competitive. For our NobelClad business, this impacts our ability to compete on international projects and negatively impacts U.S. fabricators, which are the primary consumers of NobelClad products. Although some of these tariffs have been subsequently reduced or eliminated, as occurred in connection with the United States Mexico Canada Agreement (USMCA), many tariffs continue to exist and new tariffs have been and may be imposed at any time. The prolonged duration of tariffs, the imposition of additional tariffs and the risk of potential broader global trade conflicts could have a material adverse effect on our business, financial condition or results of operations.

Failure to attract and retain key personnel could adversely affect our current operations.

Our continued success depends to a large extent upon the efforts and abilities of key managerial and technical employees. The loss of services of certain of these key personnel could have a material adverse effect on our business, results of operations, and financial condition. There can be no assurance that we will be able to attract and retain such individuals on acceptable terms, if at all, and the failure to do so could have a material adverse effect on our business, financial condition, and results of operations.

A failure in our information technology systems or those of third parties, including those caused by security breaches, cyber-attacks or data protection failures, could disrupt our business, damage our reputation and cause losses.

We are dependent upon information technology systems in the conduct of our operations. Our information technology systems are subject to disruption, damage or failure from a variety of sources, including, without limitation, computer viruses, security breaches, cyber-attacks, natural disasters and defects in design. Cybersecurity incidents in particular are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and banking information and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information and the corruption of data. Various measures have been implemented to manage our risks related to information technology systems and network disruptions. However, given the unpredictability of the timing, nature and scope of information technology disruptions, we could potentially be subject to production downtimes, operational delays, the compromising of confidential or otherwise protected information, destruction or corruption of data, security breaches, theft, other manipulation or improper use of our systems and networks or financial losses from remedial actions, any of which could have a material adverse effect on our cash flows, competitive position, financial condition or results of operations.

We outsource certain technology and business process functions to third parties and may increasingly do so in the future. If we do not effectively develop, implement and monitor our outsourcing strategy, third party providers do not perform as anticipated or we experience technological or other problems with a transition, we may not realize productivity improvements or cost efficiencies and may experience operational difficulties, increased costs and loss of business. Our outsourcing of certain technology and business processes functions to third parties may expose us to enhanced risks related to data security, which could result in monetary and reputational damages. In addition, our ability to receive services from third party providers may be impacted by cultural differences, political instability, and unanticipated regulatory requirements or policies. As a result, our ability to conduct our business may be adversely affected.

The regulatory environment surrounding information security and privacy is increasingly demanding. We are subject to numerous U.S. federal and state laws and non-U.S. laws and regulations governing the protection of personal and confidential information of our customers and employees. In particular, the European Union ("E.U.") has adopted the General Data Protection Regulation, or GDPR, which contains numerous requirements that must be complied with when handling the personal data of E.U.-based data subjects. We are subject to the GDPR with respect to our E.U. operations and employees. The GDPR and similar laws and regulations are increasing in complexity and number, change frequently and sometimes conflict. In particular, as the E.U. member states reframe their national legislation to harmonize with the GDPR, we will need to monitor compliance with all relevant E.U. member states' laws and regulations, including where permitted derogations from the GDPR are introduced. In addition, the states of California and Colorado have recently enacted data privacy laws, and such laws may be enacted in other states or at the U.S. federal level.

The GDPR, any resultant changes in E.U. member states' national laws and regulations, and existing or new U.S. state or federal data privacy laws and regulations may increase our compliance obligations and may necessitate the review and implementation of policies and processes relating to our collection and use of data. This increase in compliance obligations could also lead to an increase in compliance costs which may have an adverse impact on our business, financial condition and results of operations. If any person, including any of our employees or those with whom we share such information, negligently disregards or intentionally breaches our established controls with respect to our client or employee data, or otherwise mismanages or misappropriates that data, we could be subject to significant monetary damages, regulatory enforcement actions, fines and/or criminal prosecution in one or more jurisdictions. For example, under the GDPR penalties for noncompliance can be imposed up to the greater of €20 million or 4% of a firm's global annual revenue. In addition, a data breach could result in negative publicity which could damage our reputation and have an adverse effect on our business, financial condition and results of operations.

To the extent that we seek to expand our business through acquisitions, we may experience issues in executing acquisitions or integrating acquired operations.

From time to time, we examine opportunities to make selective acquisitions in order to increase shareholder return by increasing our total available markets, expanding our existing operations and, potentially, generating synergies. The success of any acquisition depends on a number of factors, including, but not limited to:

- identifying suitable candidates for acquisition and negotiating acceptable terms;
- obtaining approval from regulatory authorities and potentially DMC's shareholders;
- maintaining our financial and strategic focus and avoiding distraction of management during the process of integrating the acquired business;
- implementing our standards, controls, procedures and policies at the acquired business and addressing any pre-existing liabilities or claims involving the acquired business; and
- to the extent the acquired operations are in a country in which we have not operated historically, understanding the regulations and challenges of operating in that new jurisdiction.

For example, our due diligence process may not reveal all liabilities associated with a potential acquisition, and this could result in us incurring unanticipated losses after the acquisition is completed. There can be no assurance that we will be able to conclude any acquisitions successfully or that any acquisition will achieve the anticipated synergies or other positive results. Any material problems that we encounter in connection with such an acquisition could have a material adverse effect on our business, results of operations and financial position.

If we fail to establish and maintain adequate internal controls over financial reporting, we may not be able to report our financial results in a timely and reliable manner, which could harm our business and impact the value of our securities.

We depend on our ability to produce accurate and timely financial statements in order to run our business. If we fail to do so, our business could be negatively affected and our independent registered public accounting firm may be unable to attest to

the fair presentation of our Consolidated Financial Statements in accordance with U.S. generally accepted accounting principles ("GAAP") and the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Effective internal controls are necessary for us to provide reliable financial reports and to effectively prevent fraud. If we cannot provide reliable financial reports and effectively prevent fraud, our reputation and operating results could be harmed. Even effective internal controls have inherent limitations including the possibility of human error, the circumvention or overriding of controls, or fraud. Therefore, even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. In addition, projections of any evaluation of effectiveness of internal control over financial reporting in future periods are subject to the risk that the control may become inadequate because of changes in conditions or a deterioration in the degree of compliance with the policies or procedures.

If we fail to maintain adequate internal controls, including any failure to implement new or improved controls, or if we experience difficulties in their execution, we could fail to meet our reporting obligations, and there could be a material adverse effect on our business and financial results. In the event that our current internal control practices deteriorate, we may be unable to accurately report our financial results or prevent fraud, and investor confidence and the market price of our stock may be adversely affected.

We are subject to litigation and may be subject to additional litigation in the future.

We are currently, and may in the future become, subject to litigation, arbitration or other legal proceedings with other parties. Managing or defending such legal proceedings may result in substantial legal fees, expenses and costs and diversion of management resources. If material litigation is brought against us in the future, a decision adverse to DMC could have a material adverse effect on our financial position or prospects. For a more detailed discussion of pending litigation, see Note 9 to our Consolidated Financial Statements.

In the event of a dispute arising at our foreign operations, we may be subject to the exclusive jurisdiction of foreign courts or arbitral panels, or may not be successful in subjecting foreign persons to the jurisdiction of courts or arbitral panels in the United States. Our inability to enforce our rights and the enforcement of rights on a prejudicial basis by foreign courts or arbitral panels could have an adverse effect on our results of operations and financial position.

Legal and Regulatory Risks

Our operations require us to comply with numerous laws and regulations, violations of which could have a material adverse effect on our operations, financial condition or cash flows.

Our operations are subject to international, regional, national, and local laws and regulations in every place where we operate, relating to matters such as environmental protection, health and safety, labor and employment, import/export controls, currency exchange, bribery and corruption, data privacy and cybersecurity, intellectual property, immigration, and taxation. These laws and regulations are complex, frequently change, and have tended to become more stringent over time. In the event the scope of these laws and regulations expands in the future, the incremental cost of compliance could adversely affect our financial condition, results of operations, or cash flows.

Our international operations are subject to anti-corruption and anti-bribery laws and regulations, such as the FCPA, the U.K. Bribery Act and other similar laws. We are also subject to trade control regulations and trade sanctions laws that restrict the movement of certain goods to, and certain operations in, various countries or with certain persons. Our ability to transfer people, products and data among certain countries is subject to maintaining required licenses and complying with these laws and regulations.

The internal controls, policies and procedures, and employee training and compliance programs we have implemented to deter prohibited practices may not be effective in preventing employees, contractors or agents from violating or circumventing such internal policies or from material violations of applicable laws and regulations. Any determination that we have violated or are responsible for violations of anti-bribery, trade control, trade sanctions or anti-corruption laws could have a material adverse effect on our financial condition. Violations of international and US laws and regulations or the loss of any required licenses may result in fines and penalties, criminal sanctions, administrative remedies or restrictions on business conduct, and could have a material adverse effect on our business, operations and financial condition. In addition, any major violations could have a significant effect on our reputation and consequently on our ability to win future business and maintain existing customer and supplier relationships.

The use of explosives in our manufacturing processes and products subject us to additional environmental, health and safety laws and any accidents or injuries could subject us to significant liabilities.

DynaEnergetics' uses explosive materials in its manufacturing processes and products. NobelClad's manufacturing process involves the detonation of large quantities of explosives. The use of explosives is an inherently dangerous activity. These activities subject us to extensive environmental and health and safety laws and regulations including guidelines and regulations for the purchase, manufacture, handling, transport, storage and use of explosives issued by the U.S. Bureau of Alcohol, Tobacco and Firearms; the Federal Motor Carrier Safety regulations set forth by the U.S. Department of Transportation; the Safety Library Publications of the Institute of Makers of Explosive; and similar guidelines of their European counterparts. In Germany, the transport, storage and use of explosives is governed by a permit issued under the Explosives Act (Sprengstoffgesetz).

Despite our use of specialized facilities to store and handle dangerous materials and our employee training programs, the storage and handling of explosive materials could result in explosive incidents that temporarily shut down or otherwise disrupt our or our customers' operations or could cause restrictions, delays or cancellations in the delivery of our services. It is possible that such an explosion could result in death or significant injuries to employees and other persons. Material property damage to us, our customers and third parties arising from an explosion or resulting fire could also occur. Any explosion could expose us to adverse publicity and liability for damages or cause production restrictions, delays or cancellations, any of which could have a material adverse effect on our operating results, financial condition and cash flows. Moreover, failure to comply with applicable requirements or the occurrence of an explosive incident may also result in the loss of our license to store and handle explosives, which would have a material adverse effect on our business, results of operations and financial conditions.

Demand for our products could be reduced by existing and future legislation, regulations and public sentiment.

Regulatory agencies and environmental advocacy groups in the United States, the E.U., and other regions or countries have been focusing considerable attention on the emissions of carbon dioxide, methane and other greenhouse gases and their role in climate change. There is also increased focus, including by governments and our customers, investors and other stakeholders, on these and other sustainability and energy transition matters. Existing or future legislation and regulations related to greenhouse gas emissions and climate change, as well as initiatives by governments, non-governmental organizations, and companies to conserve energy or promote the use of alternative energy sources, and negative attitudes toward or perceptions of fossil fuel products and their relationship to the environment, may significantly curtail demand for and production of oil and gas in areas of the world where our customers operate, and thus reduce future demand for our products.

In addition, some international, national, state and local governments and agencies have also adopted laws and regulations or are evaluating proposed legislation and regulations that are focused on directly limiting the extraction of shale gas or oil using hydraulic fracturing. The U.S. federal government has also recently taken significant actions to restrict or suspend the issuance of oil and gas leases on federal lands, which could have a significant impact on future drilling, completion activity and production. These or similar legislation or regulatory changes could limit oil and gas development, lead to operational delays and increased costs for our customers, and therefore reduce demand for our products. Such reductions in demand for our products may, in turn, adversely affect our financial condition, results of operations and cash flows.

Increased negative investor sentiment toward oil and gas and preference for assets outside of traditional energy sectors could lead to higher capital costs for our customers and reduced investment in fossil fuels, thereby reducing demand for our products. Such preferences could also impact our ability to obtain acceptable debt or equity financing on attractive terms or at all and could negatively impact our stock price over time. Our business, reputation and demand for our stock could be negatively affected if we do not (or are perceived to not) act responsibly with respect to sustainability matters.

Liabilities for natural resource damages, cleanup costs, and other damages under environmental, health and safety laws could result in restrictions or prohibitions on our facilities, substantial civil or criminal liabilities and could have a material adverse effect on our business, consolidated results of operations, and consolidated financial condition.

We are subject to extensive environmental, health and safety regulation in the United States and the other countries where our manufacturing facilities are located including those covering hazardous materials. We and all of our activities in the United States are subject to noise abatement and air emissions regulations, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, regulations issued and laws enforced by the labor and employment departments of the U.S. and the states in which we conduct business, the U.S. Department of Commerce, and the U.S. Environmental Protection Agency. In Germany, we and all our activities are subject to various safety and environmental regulations of the federal state which are enforced by the local authorities, including the Federal Act on Emission Control (Bundes-Immissionsschutzgesetz). The Federal Act on Emission Control permits are held by companies jointly owned by DynaEnergetics and the other companies that are located at the Troisdorf manufacturing site and are for an indefinite period of time. The Dillenburg, Germany facility is

operated based on a specific permit granted by the local mountain authority and must be renewed every three years. Any failure to comply with current and future environmental and safety regulations could subject us to significant liabilities. Any actual or alleged violations of environmental, health or safety laws could result in restrictions or prohibitions on our facilities or substantial civil or criminal sanctions. In addition, under certain environmental laws, we could be held responsible for all of the costs relating to any contamination at our facilities and at third party waste disposal sites, even when such contamination was caused by a predecessor and even when the actions resulting in the contamination were lawful at the time. We could also be held liable for any and all consequences arising out of human exposure to hazardous substances or other environmental damage. Accordingly, environmental, health or safety matters may result in significant unanticipated costs or liabilities, which could have a material adverse effect on our business, operating results and financial condition.

Changes in or interpretation of tax law control could impact the determination of our income tax liabilities for a tax year.

We are subject to income taxes in the U.S. and many foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. For example, compliance with the 2017 United States Tax Cuts and Jobs Act ("TCJA") may require the collection of information not regularly produced within the Company, the use of estimates in our consolidated financial statements, and the exercise of significant judgment in accounting for its provisions. As regulations and guidance evolve with respect to the TCJA, and as we gather more information and perform more analysis, our results may differ from previous estimates and may materially affect our consolidated financial statements.

We earn a significant amount of our operating income outside the U.S and have significant intercompany transactions between our affiliates. A change in the mix of earnings and losses in countries with differing statutory tax rates, changes in our business or structure, or the expiration of or disputes about certain tax agreements in a particular country may result in higher effective tax rates for the Company. In addition, changes in U.S. federal and state or international tax laws applicable to corporate multinationals, other fundamental law changes currently being considered by many countries, including in the U.S., and changes in taxing jurisdictions' administrative interpretations, decisions, policies, and positions may materially adversely impact our consolidated financial statements.

We are under audit by tax authorities in different jurisdictions from time to time. Although we believe that our provision for income taxes and our tax estimates are reasonable, tax authorities may disagree with certain positions we have taken. In addition, economic and political pressures to increase tax revenue in various jurisdictions may make resolving tax disputes favorably more difficult. The final resolution of any audits or litigation, may differ from the amounts recorded in our consolidated financial statements and may materially affect our consolidated financial statements in the period or periods in which that determination is made.

Intellectual Property Risks

Our failure to protect our proprietary information and any successful intellectual property challenges against us could materially and adversely affect our competitive position.

The protection of our intellectual property rights is essential to maintaining our competitive position and recognizing the value of our investments in technology and intellectual property in our existing and future products. We rely on trade secret protection for certain aspects of our technology, in part through confidentiality and other written agreements with our employees, consultants and third parties. Through these and other written agreements, we attempt to control access to and distribution of our intellectual property documentation and other proprietary technology information. Despite our efforts to protect our proprietary rights, former employees, consultants or third parties may, in an unauthorized manner, attempt to use, copy or otherwise obtain and market or distribute our intellectual property rights or technology or otherwise develop a product with the same functionality as our technology. Policing unauthorized use of our intellectual property rights is difficult, and nearly impossible on a worldwide basis. Therefore, we cannot be certain that the steps we have taken or will take in the future will prevent misappropriation of our technology or intellectual property rights.

We also actively pursue patent protection for our proprietary technology and intellectual property. The process of seeking patent protection can be long and expensive and we cannot be certain that any currently pending or future applications will actually result in issued patents, or that, even if patents are issued, they will be respected by third parties. In addition, our competitors may be able to develop technology independently that is similar to ours without infringing on our patents or gaining access to our trade secrets, and this could have a similar effect on our competitive position.

Intellectual property litigation and threats of litigation are becoming more common in the oilfield services industry. We are currently involved and may in the future be involved in litigation, in the United States or abroad, to enforce our patents or other intellectual property rights or to protect our trade secrets and know-how. These actions commonly result in actions by the affected third parties to establish the invalidity of our patents. While we intend to prosecute these actions vigorously, there is no guarantee of success, and such effort takes significant financial and time resources from the Company. In the event that one or more of our patents are challenged, a court or the United States Patent and Trademark Office (USPTO) may invalidate the patent(s) or determine that the patent(s) is not enforceable, which could harm our competitive position. If our patents are invalidated, or if the scope of the claims in any of these patents is limited by a court or USPTO decision, we could be prevented from pursuing certain litigation matters or licensing the invalidated or limited portion of such patents. Such adverse decisions could negatively impact our future, expected revenue. Patent litigation, if necessary or when instituted against us, could result in substantial costs and divert our management's attention and resources.

We may incur substantial costs defending against third parties alleging that we infringe their proprietary rights.

We are currently involved and may in the future be involved in litigation relating to alleged infringement by us of others' patents or other intellectual property rights. We have an active "freedom to operate" review process for our technology, but there is no assurance that future infringement claims will not be asserted. Infringement claims generally result in significant legal and other costs and may distract management from running our core businesses even if we are ultimately successful. In the event of any adverse ruling in any intellectual property litigation, we could be required to pay substantial damages, cease the manufacturing, use and sale of infringing products, discontinue the use of certain processes or obtain a license from the third party claiming infringement with royalty payment obligations by us. We also have certain indemnification obligations to customers with respect to the infringement of third party intellectual property rights by our products, which may increase our costs. Any of these occurrences could significantly harm our competitive position, results of operations, financial position and cash flows.

Risk Factors Related to Our Common Stock

The price and trading volume of our common stock may be volatile, which may make it difficult for you to resell the common stock when you want or at prices you find attractive.

The market price and trading volume of our common stock may be subject to significant fluctuations due to general stock market conditions and/or a change in sentiment in the market regarding our operations, business prospects or liquidity. Among the factors that could affect the price of our common stock are:

- changes in the oil and gas, industrial, or infrastructure markets;
- operating and financial performance that vary from the expectations of management, securities analysts or investors;
- developments in our business or in our business sectors generally;
- regulatory changes affecting our industry generally or our business and operations;
- the operating and stock price performance of companies that investors consider to be comparable to us;
- announcements of strategic developments, acquisitions and other material events by us or our competitors;
- our ability to integrate and operate the companies and the businesses that we acquire;
- rumors and market speculation regarding our industries, business or trading activity;
- significant amounts of short selling, the perception that short sales could occur and other speculative trading activity;
- activism by any large stockholder or group of stockholders;
- changes in global financial markets and global economies and general market conditions, including volatility in foreign exchange rates, tariffs and stock, commodity, credit or asset valuations, and federal government actions or shutdowns.

The stock markets in general have experienced extreme volatility that has at times been unrelated to the operating performance of particular companies, and these fluctuations may adversely affect the trading price of our common stock. In addition, the trading prices of some companies' stock have recently exhibited significant volatility, including rapid price and daily volume increases as a result of strong and atypical interest from retail investors, reportedly due in part to a high volume of social media posts, followed by significant declines in the trading prices of the stock. Our stock is historically subject to significant fluctuations, which can be caused by a myriad of known or unknown reasons. While an increase in our stock price may be attributable, in whole or in part, to market developments such as increased commodity prices and/or improving conditions in our core markets, we cannot rule out the possibility that it resulted in whole or in part from market phenomena such as a surge in investor interest or a "short squeeze", in which investors are driving up our share price in hopes that other investors holding short positions are required to buy shares at higher prices to cover their positions. In this case, those market phenomena could reverse themselves at any time, leading to a rapid and substantial decline in the price of our stock.

Holders of our common stock do not currently receive dividends and our dividend may not be reinstated in the future.

Our Board of Directors suspended our dividend in April 2020 in order to preserve liquidity in light of the sharp reduction in demand for DynaEnergetics products and other impacts of the COVID-19 pandemic. Holders of our common stock are entitled to receive only such dividends as our Board of Directors declares out of funds legally available for such payments. We are incorporated in Delaware and governed by the Delaware General Corporation Law. Delaware law allows a corporation to pay dividends only out of surplus, as determined under Delaware law or, if there is no surplus, out of net profits for the fiscal year in which the dividend was declared and for the preceding fiscal year. Although we have historically declared cash dividends on our common stock, we are not required to do so and there can be no assurance as to whether the Board will reinstate a dividend in the future.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

Corporate Headquarters

Our corporate headquarters currently are located in Broomfield, Colorado. The office is also used for NobelClad's U.S. administrative offices.

Location	Property Type	Property Size	Owned/Leased	Expiration Date of Lease (if applicable)
Broomfield, Colorado	Corporate and Sales Office	18,284 sq. ft.	Leased	September 1, 2029

DynaEnergetics

DynaEnergetics leases a manufacturing site and sales office in Troisdorf, Germany. The leases for these properties expire on December 31, 2025, and we are negotiating future renewal options. In the U.S., DynaEnergetics owns manufacturing and assembly sites in Texas and leases storage bunkers and office and warehouse space in various cities throughout Texas and Pennsylvania. DynaEnergetics also leases office and warehouse space and bunkers for storage of its explosives in two locations in Alberta, Canada.

The tables below summarize our material properties by segment, including their location, type, size, whether owned or leased and expiration terms, if applicable.

Location	Property Type	Property Size	Owned/Leased	Expiration Date of Lease (if applicable)
Troisdorf, Germany	Manufacturing and administration office	Manufacturing: 263,201 sq. ft. Office: 2,033 sq. ft.	Leased	December 31, 2025
Troisdorf, Germany	Office, Sieglarer Strasse	9,203 sq. ft.	Leased	February 29, 2021 with yearly renewal options
Liebenscheid, Germany	Manufacturing and office	91,493 sq. ft.	Owned	
Liebenscheid, Germany	Land	77,672 sq. ft.	Owned	
Houston, Texas	Office	11,370 sq. ft.	Leased	April 30, 2023
Blum, Texas	Office, warehouse, and manufacturing	83,000 sq. ft.	Owned	
Blum, Texas (a)	Warehouse	10,000 sq. ft.	Owned	
Blum, Texas	Land for office, warehouse, and manufacturing	284 acres	Owned	
Whitney, Texas	Office, warehouse, and manufacturing	36,000 sq. ft.	Owned	

(a) The Blum, Texas warehouse is separate from the main Blum manufacturing campus.

NobelClad

We own our principal domestic manufacturing site, which is located in Mount Braddock, Pennsylvania. We currently lease our primary domestic shooting site, which is located in Dunbar, Pennsylvania, and we also have license and risk allocation agreements relating to the use of a secondary shooting site, Coolspring, that is located within a few miles of the Mount Braddock facility. The shooting site in Dunbar and the nearby secondary shooting site support our Mount Braddock facility. The lease for the Dunbar property will expire on December 15, 2025, but we have options to renew the lease which would then extend through December 15, 2029. The license and risk allocation agreements will expire on March 31, 2023.

NobelClad owns a manufacturing site in Liebenscheid, Germany as well as a mine used as a shooting site in Dillenburg, Germany. We lease buildings and land around the mine to ensure access to the shooting site. The leases associated with the Dillenburg shooting site expire on August 31, 2021. NobelClad leases the building housing its sales and administrative office in Perpignan, France.

Location	Property Type	Property Size	Owned/Leased	Expiration Date of Lease (if applicable)
Mt. Braddock, Pennsylvania (a)	Clad plate manufacturing and administration office	Land: 14 acres Buildings: 101,300 sq. ft.	Owned	
Dunbar, Pennsylvania	Clad plate shooting site	Land: 322 acres Buildings: 15,960 sq. ft.	Leased	December 15, 2025, with renewal options through December 15, 2029
Cool Spring, Pennsylvania	Clad plate shooting site	1,200,000 sq. ft.	Leased	March 31, 2023, with renewal options through December 31, 2028
Tautavel, France (b)	Clad shooting site	109 acres	Owned	
Dillenburg, Germany	Clad plate shooting site	11.4 acres	Owned	
Würgendorf, Germany (c)	Manufacturing	31,345 sq. ft.	Leased	August 31, 2021
		Land: 24.6 acres	Owned	
		Storehouse 174 and 265: 2,756 sq. ft.	Leased	December 31, 2025
Liebenscheid, Germany	Manufacturing	Building: 34,251 sq. ft.	Owned	
		Land: 10.47 acres Buildings: 125,394 sq. ft.	Owned	

(a) Prior to January 10, 2020, the Mt. Braddock, Pennsylvania location was also used as a manufacturing and distribution center for our DynaEnergetics business segment. Beginning on January 10, 2020, it was used as solely a distribution center for our DynaEnergetics business segment

(b) Though NobelClad is no longer performing manufacturing activities in France, it owns this land in order to have access to a redundant shooting site.

(c) In connection with the purchase of the manufacturing facility in Liebenscheid, Germany, NobelClad ceased use of the manufacturing facility it owns in Würgendorf, Germany in the first quarter of 2015.

ITEM 3. Legal Proceedings

Please see Note 9 to the Consolidated Financial Statements.

ITEM 4. Mine Safety Disclosures

Our Coolspring property is subject to regulation by the Federal Mine Safety and Health Administration ("MSHA") under the Federal Mine Safety and Health Act of 1977 (the "Mine Act"). Pursuant to Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), issuers that are operators, or that have a subsidiary that is an operator, of a coal or other mine in the United States are required to disclose in their periodic reports filed with the SEC information regarding specified health and safety violations, orders and citations, related assessments and legal actions, and mining-related fatalities. During the year ended December 31, 2020, we had no such specified health and safety violations, orders or citations, related assessments or legal actions, mining-related fatalities, or similar events in relation to our United States operations requiring disclosure pursuant to Section 1503(a) of the Dodd-Frank Act.

PART II**ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

Our common stock is publicly traded on The Nasdaq Global Select Market ("Nasdaq") under the symbol "BOOM." As of February 18, 2021, there were 215 holders of record of our common stock (does not include beneficial holders of shares held in "street name").

Equity Compensation Plan

Refer to "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" for information regarding securities authorized for issuance under our equity compensation plans, which is incorporated in this Item by this reference.

Issuer Purchases of Equity Securities

During the quarter ended December 31, 2020, we purchased shares of common stock as follows. These shares are held as treasury shares by the Company.

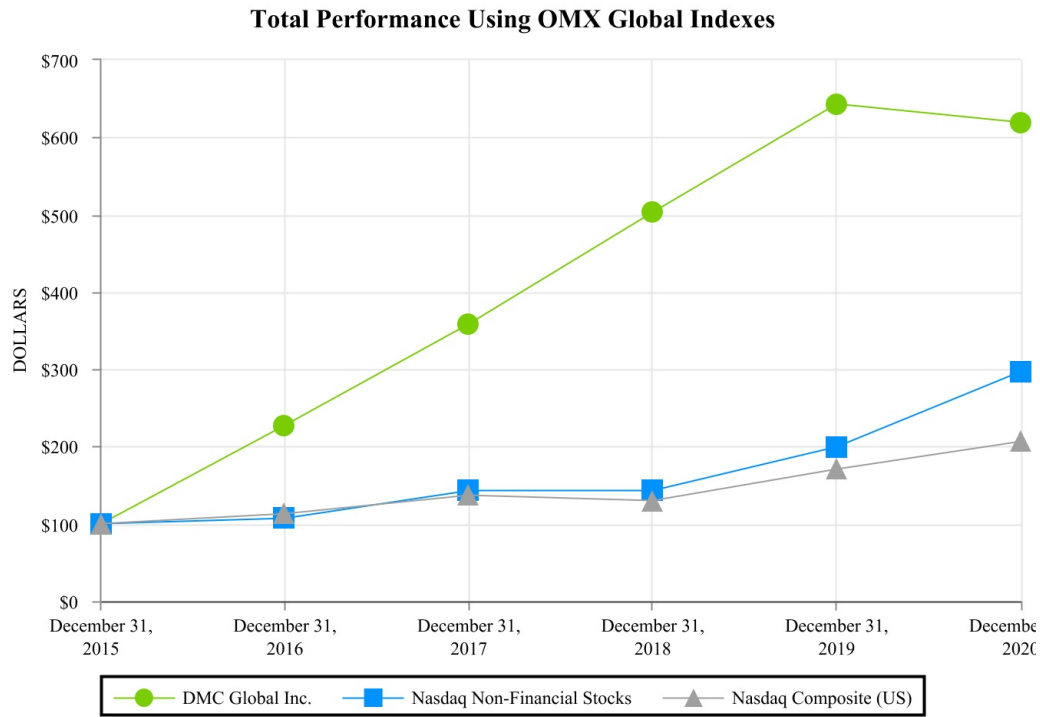
	Total number of shares purchased (1) (2)	Average price paid per share
October 1 to October 31, 2020	214	\$ 32.94
November 1 to November 30, 2020	23,303	\$ 39.92
December 1 to December 31, 2020	19,440	\$ 45.71
Total	42,957	\$ 42.50

(1) Share purchases during the period included 237 shares purchased to offset tax withholding obligations that occurred upon the vesting of restricted common stock under the terms of the 2016 Equity Incentive Plan and 42,720 shares purchased related to the participant elections to diversify contributions of equity awards into other investment options available to participants in the Company's Amended and Restated Non-Qualified Deferred Compensation Plan.

(2) As of December 31, 2020, the maximum number of shares that may yet be purchased would not exceed the employees' portion of taxes withheld on unvested shares (440,115).

Stock Performance Graph

The following graph compares the performance of our common stock with the Nasdaq Non-Financial Stocks Index and the Nasdaq Composite (U.S.) Index. The comparison of total return (change in year-end stock price plus reinvested dividends) for each of the years assumes that \$100 was invested on December 31, 2015, in each of the Company, the Nasdaq Non-Financial Stocks Index and the Nasdaq Composite (U.S.) Index with investment weighted on the basis of market capitalization. The comparisons in the graph below are based upon historical data and are not indicative of, or intended to forecast, future performance of our common stock.



Total Return Analysis	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020
DMC Global Inc.	\$100.00	\$226.75	\$358.37	\$502.43	\$642.92	\$618.74
Nasdaq Non-Financial Stocks	\$100.00	\$107.27	\$142.67	\$142.72	\$199.03	\$296.31
Nasdaq Composite (U.S.)	\$100.00	\$113.01	\$137.17	\$129.71	\$170.14	\$206.32

ITEM 6. Selected Financial Data

The following selected financial data should be read in conjunction with the Consolidated Financial Statements, including the related Notes, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

(Dollars in Thousands, Except Per Share Data) Year Ended December 31,					
Statement of Operations	2020	2019	2018	2017	2016
Net sales	\$ 229,161	\$ 397,550	\$ 326,429	\$ 192,803	\$ 158,575
Gross profit	56,853	144,923	110,695	59,391	38,680
Gross profit percentage	24.8%	36.5%	33.9%	30.8%	24.4%
Costs and expenses	54,462	66,995	64,157	49,784	42,752
Restructuring expenses, net and asset impairments	3,387	19,503	1,114	4,283	1,202
Anti-dumping duty penalty	—	—	8,000	—	—
Goodwill impairment	—	—	—	17,584	—
Operating (loss) income	(996)	58,425	37,424	(12,260)	(5,274)
Other expense, net	(964)	(1,723)	(2,817)	(3,024)	(434)
(Loss) income before income taxes	(1,960)	56,702	34,607	(15,284)	(5,708)
Income tax (benefit) provision	(548)	22,661	4,134	3,569	797
Net (loss) income	\$ (1,412)	\$ 34,041	\$ 30,473	\$ (18,853)	\$ (6,505)
Net (loss) income per share					
Basic	\$ (0.10)	\$ 2.29	\$ 2.05	\$ (1.31)	\$ (0.46)
Diluted	\$ (0.10)	\$ 2.28	\$ 2.04	\$ (1.31)	\$ (0.46)
Dividends declared per common share	\$ 0.125	\$ 0.29	\$ 0.08	\$ 0.08	\$ 0.08
Financial Position					
Total assets	\$ 279,645	\$ 277,421	\$ 240,418	\$ 173,083	\$ 162,555
Long-term debt, including current portion	\$ 11,264	\$ 14,272	\$ 17,984	\$ 17,984	\$ 15,732

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

The following discussion should be read in conjunction with our historical Consolidated Financial Statements and notes, as well as the selected historical consolidated financial data included elsewhere in this annual report. A discussion regarding our financial condition and results of operations as well as our liquidity and capital resources for fiscal 2019 compared to fiscal 2018 can be found under Item 7 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, which is available on the SEC's website at www.sec.gov and our Investor Relations website at www.dmcglobal.com/investors.

Unless stated otherwise, all dollar figures in this report are presented in thousands (000s). N/M indicates that the change in dollars or percentage was not meaningful.

Overview

General

DMC Global Inc. ("DMC", "we", "us", "our", or the "Company") is a diversified holding company. Our innovative businesses provide differentiated products and services to niche industrial and commercial markets around the world. DMC's objective is to identify well-run businesses and strong management teams and support them with long-term capital and strategic, legal, technology and operating resources. Our approach helps our portfolio companies grow core businesses, launch new initiatives, upgrade technologies and systems to support their long-term strategy, and make acquisitions that improve their competitive positions and expand their markets. DMC's culture is to foster local innovation versus centralized control and to stand behind our businesses in ways that truly add value. Today, DMC's portfolio consists of DynaEnergetics and NobelClad, which collectively address the energy, industrial processing and transportation markets. Based in Broomfield, Colorado, DMC trades on Nasdaq under the symbol "BOOM."

DynaEnergetics

DynaEnergetics designs, manufactures and distributes products utilized by the global oil and gas industry principally for the perforation of oil and gas wells. These products are sold to oilfield service companies in the U.S., Europe, Canada, Africa, the Middle East, Russia, and Asia. DynaEnergetics also sells directly to end-users. The market for perforating products, which are used during the well completion process, generally corresponds with oil and gas exploration and production activity. Well completion operations are increasingly complex, which in turn has increased the demand for intrinsically-safe, reliable and technically advanced perforating systems.

Cost of products sold for DynaEnergetics includes the cost of metals, explosives and other raw materials used to manufacture shaped charges, detonating products and perforating guns as well as employee compensation and benefits, depreciation of manufacturing facilities and equipment, manufacturing supplies and other manufacturing overhead expenses.

NobelClad

NobelClad produces explosion-welded clad metal plates for use in the construction of corrosion resistant industrial processing equipment and specialized transition joints. While a significant portion of the demand for our clad metal products is driven by maintenance and retrofit projects at existing chemical processing, petrochemical processing, oil refining, and aluminum smelting facilities, new plant construction and large plant expansion projects also account for a significant portion of total demand. These industries tend to be cyclical in nature and timing of new order inflow remains difficult to predict. We use backlog as a primary means to measure the immediate outlook for our NobelClad business. We define "backlog" at any given point in time as all firm, unfulfilled purchase orders and commitments at that time. Most firm purchase orders and commitments are realized, and we expect to fill most backlog orders within the following 12 months. NobelClad's backlog increased to \$39,884 at December 31, 2020 from \$31,660 at December 31, 2019.

Cost of products sold for NobelClad includes the cost of metals, explosive powders and other raw materials used to manufacture clad metal plates as well as employee compensation and benefits, depreciation of manufacturing facilities and equipment, manufacturing supplies and other manufacturing overhead expenses.

Factors Affecting Results

The following items impacted the comparability of the company's results for the years ended December 31, 2020 and 2019:

- Consolidated sales of \$229,161 decreased 42% versus 2019 as the COVID-19 pandemic drove a sharp decline in energy demand and average crude oil prices, which negatively impacted North American unconventional drilling and completion activity and sales at DynaEnergetics.
- DynaEnergetics' sales of \$146,395 in 2020 decreased 53% compared with 2019 due to lower average crude oil prices and energy demand caused by the COVID-19 pandemic, which negatively impacted unconventional drilling and completion activity in North America. DynaEnergetics sales increased 3% sequentially in the fourth quarter of 2020 as an increase in well completion activity in North America offset lower international activity.
- NobelClad's sales of \$82,766 in 2020 decreased 5% compared with 2019 primarily due to the timing of shipment of projects out of backlog.
- Consolidated gross profit of 25% in 2020 decreased from 36% in 2019. The decline primarily related to lower average selling prices and the impact of lower sales volume on fixed manufacturing overhead and research and development expenses at DynaEnergetics and a less favorable project mix at NobelClad.
- Consolidated selling, general, and administrative expenses were \$53,013 in 2020 compared with \$65,451 in 2019. The decrease primarily was due to cost containment actions related to the COVID-19 pandemic. We significantly reduced spending on outside service, incentive compensation expense, payroll and payroll-related costs, and curtailed travel expenses. These reductions partially were offset by an increase in the provision for expected credit losses of \$3,039.
- Restructuring expenses of \$3,387 in 2020 included asset impairments, severance costs related to downsizing our direct labor workforce in response to the COVID-19 impact on demand for DynaEnergetics' products, and costs related to the sale of the Tyumen, Siberia manufacturing facility.
- Net cash of \$42,659 (comprised of \$53,923 in cash and marketable securities net of \$11,264 of total debt) improved from net cash of \$6,081 at December 31, 2019. Net cash, a non-GAAP measure, is calculated as total cash, cash equivalents and marketable securities less total debt.

Outlook

Employee safety is our top priority. During the fourth quarter of 2020, DynaEnergetics successfully passed one year without any lost time or recordable safety incidents across all its locations. As of December 31, 2020, NobelClad had no lost time safety incident at its locations in over 400 days.

With respect to COVID-19, we will continue to implement and enhance our efforts to ensure employee safety, which include regular deep cleaning of our facilities, providing personal protective equipment, restricting business travel and site visits and requiring adherence to health monitoring, hygiene and quarantine practices advised by health authorities. We continue to monitor and adjust our policies and practices to remain aligned with federal, state, local and international regulations and guidelines.

An initially slow recovery in North America's unconventional oil and gas sector gained strength during the latter part of 2020, and that momentum has continued into the first quarter of 2021. The industry's leading operators and their service providers are increasingly focused on maximizing the safety, performance and profitability of their well completion programs, which is driving demand for DynaEnergetics' DS perforating systems. The recovery of pricing for energy products has lagged the rebound in market activity. As demand continues to improve, DynaEnergetics is focused on returning its prices to levels that reflect the inherent value of its technologies and products.

DynaEnergetics continues to invest in research and development to expand our portfolio of perforating systems, as well as product and market development initiatives to maintain our competitive advantages and future growth. In parallel, we are maintaining our efforts and commitment to intellectual property development and protection, including where necessary, patent enforcement. Protecting and enforcing our intellectual property and patents is vital to reinforcing the value of our investments in research and development, and we expect to incur increased legal expenses in 2021.

NobelClad principally serves long-cycle industries that can be slow to react to changing economic conditions, and this will likely lead to a relatively slow start to 2021. We nevertheless remain encouraged by NobelClad's prospects for medium to long-range growth. It entered 2021 with a \$40 million order backlog, which is approximately 25% higher than its backlog at the end of 2020.

While we remain in cost-containment mode and continue to closely monitor capital expenditures and operating costs, our staffing levels are increasing primarily in activity-based positions at DynaEnergetics.

We also may continue from time to time to use our at-the-market equity program ("ATM"), which was commenced in October 2020, to raise additional capital efficiently and responsibly. During the fourth quarter of 2020, we sold 608,360 shares of common stock at a weighted average price per share of \$42.95 through our ATM equity program and received net proceeds of \$25,740.

Use of Non-GAAP Financial Measures

Adjusted EBITDA is a non-GAAP (generally accepted accounting principles) measure that we believe provides an important indicator of our ongoing operating performance and that we use in operational and financial decision-making. We define EBITDA as net income or loss plus or minus net interest, taxes, depreciation and amortization. Adjusted EBITDA excludes from EBITDA stock-based compensation, restructuring and impairment charges and, when appropriate, other items that management does not utilize in assessing DMC's operating performance (as further described in the tables below). As a result, internal management reports used during monthly operating reviews feature Adjusted EBITDA and certain management incentive awards are based, in part, on the amount of Adjusted EBITDA achieved during the year.

Adjusted operating income is defined as operating income plus restructuring and impairment charges and, when appropriate, other items that management does not utilize in assessing DMC's operating performance.

Adjusted net income is defined as net income plus restructuring and impairment charges and, when appropriate, other items that management does not utilize in assessing DMC's operating performance. Adjusted diluted earnings per share is defined as diluted earnings per share plus restructuring and impairment charges and, when appropriate, other items that management does not utilize in assessing DMC's operating performance.

Adjusted operating income, adjusted net income, and adjusted diluted earnings per share are presented because management believes these measures are useful to understand the effects of restructuring and impairment charges on DMC's operating income, net income and diluted earnings per share, respectively.

Net cash is a non-GAAP measure we use to supplement information in our Consolidated Financial Statements. We define net cash as total cash, cash equivalents and marketable securities less total debt. In addition to conventional measures prepared in accordance with GAAP, the Company uses this information to evaluate its performance, and we believe that certain investors may do the same.

The presence of non-GAAP financial measures in this report is not intended to suggest that such measures be considered in isolation or as a substitute for, or as superior to, DMC's GAAP information, and investors are cautioned that the non-GAAP financial measures are limited in their usefulness. Because not all companies use identical calculations, DMC's presentation of non-GAAP financial measures may not be comparable to similarly titled measures of other companies.

Forward-Looking Statements

This annual report and the documents incorporated by reference into it contain certain forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigations Reform Act of 1995. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "may," "will," "continue," "project," "forecast," and similar expressions, as well as statements in the future tense, identify forward-looking statements. Such statements include statements regarding our future expected financial position and operating results, our growth and business strategy, planned developments with respect to human capital matters, our expectations regarding the oil and gas industry, expected product developments in DynaEnergetics, expected impacts to demand and pricing for DynaEnergetics' products, growth of our NobelClad segment, our financing plans, our future liquidity position and factors impacting such position.

These forward-looking statements are not guarantees of our future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements. These risks and uncertainties include those relating to:

- Continuing impacts of the COVID-19 pandemic and related governmental actions;
- Changes in global economic conditions;
- The ability to obtain new contracts at attractive prices;
- The size and timing of customer orders and shipments;

- Product pricing and margins;
- Our ability to realize sales from our backlog and our ability to adjust our manufacturing and supply chain;
- Fluctuations in customer demand;
- Our ability to manage periods of growth and contraction effectively;
- General economic conditions, both domestic and foreign, impacting our business and the business of the end-market users we serve;
- Competitive factors;
- The timely completion of contracts;
- The timing and size of expenditures;
- The timely receipt of government approvals and permits;
- The price and availability of metal and other raw materials;
- The adequacy of local labor supplies at our facilities;
- Current or future limits on manufacturing capacity at our various operations;
- The impact of catastrophic weather events on our business and that of our customers;
- Our ability to successfully integrate acquired businesses;
- The ability to remain an innovative leader in our fields of business;
- The costs and impacts of pending or future litigation or regulatory matters;
- Changes to legislation, regulation or public sentiment related to our business and the industries in which our customers operate;
- The impacts of trade and economic sanctions or other restrictions imposed by the European Union, the United States or other countries;
- Costs and risks associated with compliance with laws and regulations, including the United States Foreign Corrupt Practices Act ("FCPA") and similar legislation;
- The availability and cost of funds; and
- Fluctuations in foreign currencies.

The effects of these factors are difficult to predict. New factors emerge from time to time and we cannot assess the potential impact of any such factor on our business or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statement. All forward-looking statements speak only as of the date of this annual report, and we do not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of such statement or to reflect the occurrence of unanticipated events. In addition, see "Risk Factors" for a discussion of these and other factors that could materially affect our results of operations and financial condition.

Consolidated Results of Operations

	2020	2019	\$ change	% change
Net sales	\$ 229,161	\$ 397,550	\$ (168,389)	(42) %
Gross profit	56,853	144,923	(88,070)	(61) %
Gross profit percentage	24.8 %	36.5 %		
COSTS AND EXPENSES:				
General and administrative expenses	29,150	37,976	(8,826)	(23) %
% of net sales	12.7 %	9.6 %		
Selling and distribution expenses	23,863	27,475	(3,612)	(13) %
% of net sales	10.4 %	6.9 %		
Amortization of purchased intangible assets	1,449	1,544	(95)	(6) %
% of net sales	0.6 %	0.4 %		
Restructuring expenses	3,387	19,503	(16,116)	(83) %
Operating (loss) income	(996)	58,425	(59,421)	(102) %
Other expense, net	(233)	(169)	(64)	38 %
Interest expense, net	(731)	(1,554)	823	(53) %
Income tax (benefit) provision	(548)	22,661	(23,209)	(102) %
Net (loss) income	(1,412)	34,041	(35,453)	(104) %
Adjusted EBITDA	\$ 19,147	\$ 93,753	\$ (74,606)	(80) %

Net sales decreased \$168,389 compared with 2019. This primarily was due to the COVID-19 pandemic-related collapse in crude oil and gas demand, which resulted in a significant reduction in unconventional well completions in North America and demand for DynaEnergetics' perforating systems.

Gross profit percentage decreased to 24.8% primarily due lower average selling prices and the impact of lower sales volume on fixed manufacturing overhead expenses at DynaEnergetics as well as a less favorable project mix at NobelClad.

General and administrative expenses decreased \$8,826 compared with 2019 principally due to significant cost containment actions made in response to the COVID-19 pandemic. We reduced spending on outside services by \$5,018, variable bonus expenses by \$2,274, employee benefits expenses and payroll taxes by \$1,878, and travel expenses by \$1,134. These decreases were partially offset by increases in depreciation expense of \$506 and stock-based compensation expense of \$356.

Selling and distribution expenses decreased \$3,612 compared with 2019 primarily due to reductions in freight expenses by \$1,191, wages, employee benefits expenses and payroll taxes by \$1,068, outside service costs by \$948, travel expenses by \$906, and variable bonus by \$851. These decreases were partially offset by an increase in the provision for expected credit losses by \$3,039 during 2020.

Restructuring expenses of \$3,387 in 2020 primarily related to asset impairments, severance costs related to downsizing our direct labor workforce in response to the COVID-19 pandemic related decline in crude oil prices and corresponding demand for unconventional well perforating systems at DynaEnergetics, and costs related to the sale of the Tyumen, Siberia manufacturing facility.

Operating loss of \$996 compared with operating income of \$58,425 in 2019 was primarily due to lower sales volume and average selling prices at DynaEnergetics in 2020.

Other expense, net of \$233 in 2020 and \$169 in 2019 primarily related to the non-service cost components of our defined benefit pension plans at certain foreign subsidiaries. In 2019, other expense, net also included a net foreign currency exchange gain. Foreign currency exchange gains and losses can arise when subsidiaries enter into inter-company and third-party transactions that are denominated in currencies other than their functional currency, including foreign currency forward contracts used to offset foreign exchange rate fluctuations on certain foreign currency denominated asset and liability positions.

Interest expense, net of \$731 decreased compared with 2019 primarily due to a lower average outstanding debt balance and lower applicable interest rates in 2020.

Income tax benefit of \$548 for 2020 compared with an income tax provision of \$22,661 for 2019. Our most significant operations are in the United States, which has a 21% statutory tax rate and Germany, which has a 33% statutory tax rate. The mix of pretax income between these jurisdictions is one of the main drivers of the difference between our 21% statutory tax rate and our effective tax rate. Additionally, the current-year effective tax rate was impacted unfavorably by nondeductible losses related to the closure of DynaEnergetics' operations in Tyumen, Siberia, partially offset by benefits from the vesting of equity-based compensation. The 2019 effective tax rate was unfavorably impacted by nondeductible losses related to the closure of DynaEnergetics' operations in Tyumen, Siberia. Additionally, the 2019 effective tax rate reflects an unfavorable increase due to the establishment of a valuation allowance against certain deferred tax assets in Germany that we do not expect to be realizable due to a change in our German legal entity structure that was effective on January 1, 2020.

Net loss in 2020 was \$1,412, or \$0.10 per diluted share, compared with net income of \$34,041, or \$2.28 per diluted share in 2019.

Adjusted EBITDA decreased compared with 2019 due to the factors discussed above. See "Overview" above for the explanation of the use of non-GAAP measures. The following is a reconciliation of the most directly comparable GAAP measure to Adjusted EBITDA.

	2020	2019
Net (loss) income	\$ (1,412)	\$ 34,041
Interest expense, net	731	1,554
Income tax (benefit) provision	(548)	22,661
Depreciation	9,632	8,316
Amortization of purchased intangible assets	1,449	1,544
EBITDA	9,852	68,116
Restructuring expenses, net and asset impairments	3,387	19,503
Restructuring related inventory write down	—	630
Restructuring related accounts receivable write off	—	131
Stock-based compensation	5,675	5,204
Other expense, net	233	169
Adjusted EBITDA	\$ 19,147	\$ 93,753

Adjusted Net Income and Adjusted Diluted Earnings per Share decreased compared with 2019 due to the factors discussed above. See "Overview" above for the explanation of the use of non-GAAP measures. The following is a reconciliation of the most directly comparable GAAP measures to Adjusted Net Income and Adjusted Diluted Earnings Per Share.

	Twelve months ended December 31, 2020				
	Pre-Tax	Tax	Net	Diluted weighted average shares outstanding	Diluted EPS
Net loss, as reported	\$ (1,960)	\$ (548)	\$ (1,412)	14,790,296	\$ (0.10)
Restructuring programs:					
DynaEnergetics	2,922	863	2,059	14,790,296	0.14
NobelClad	346	56	290	14,790,296	0.02
Corporate	119	25	94	14,790,296	0.01
Adjusted net income	\$ 1,427	\$ 396	\$ 1,031	14,790,296	\$ 0.07

Twelve months ended December 31, 2019					
	Pre-Tax	Tax	Net	Diluted weighted average shares outstanding	Diluted EPS
Net income, as reported	\$ 56,702	\$ 22,661	\$ 34,041	14,655,350	\$ 2.28
Restructuring programs:					
DynaEnergetics	18,625	239	18,386	14,655,350	1.25
NobelClad	873	33	840	14,655,350	0.06
Restructuring related inventory write down	630	109	521	14,655,350	0.04
Restructuring related accounts receivable write off	131	—	131	14,655,350	0.01
Impact of tax valuation allowances	—	(1,647)	1,647	14,655,350	0.11
Adjusted net income	<u>\$ 76,961</u>	<u>\$ 21,395</u>	<u>\$ 55,566</u>	14,655,350	<u>\$ 3.75</u>

Business Segment Financial Information

We primarily evaluate performance and allocate resources based on segment revenues, operating income and Adjusted EBITDA as well as projected future performance. Segment operating income is defined as revenues less expenses identifiable to the segment. DMC operating income and Adjusted EBITDA include unallocated corporate expenses and stock-based compensation expense, which are not allocated to our business segments. Segment operating income will reconcile to consolidated income before income taxes by deducting unallocated corporate expenses, including stock-based compensation, other expense, net, and interest expense, net,

Net sales, segment operating income, and Adjusted EBITDA for each segment were as follows for years ended December 31:

	2020		
	DynaEnergetics	NobelClad	DMC Global Inc.
Net Sales	\$ 146,395	\$ 82,766	\$ 229,161
% of Consolidated	64 %	36 %	
Operating income	6,150	6,886	(996)
Adjusted EBITDA	16,335	10,736	19,147

	2019		
	DynaEnergetics	NobelClad	DMC Global Inc.
Net Sales	\$ 310,424	\$ 87,126	\$ 397,550
% of Consolidated	78 %	22 %	
Operating income	68,781	7,193	58,425
Adjusted EBITDA	94,541	11,118	93,753

DynaEnergetics

	2020	2019	\$ change	% change
Net sales	\$ 146,395	\$ 310,424	\$ (164,029)	(53) %
Gross profit	38,072	122,703	(84,631)	(69) %
Gross profit percentage	26.0 %	39.5 %		
COSTS AND EXPENSES:				
General and administrative expenses	13,116	16,876	(3,760)	(22) %
Selling and distribution expenses	14,825	17,260	(2,435)	(14) %
Amortization of purchased intangible assets	1,059	1,162	(103)	(9) %
Restructuring expenses, net and asset impairments	2,922	18,624	(15,702)	(84) %
Operating income	6,150	68,781	(62,631)	(91) %
Adjusted EBITDA	\$ 16,335	\$ 94,541	\$ (78,206)	(83) %

Net sales were \$164,029 lower than in 2019 due to sharply lower demand for well perforating systems as the COVID-19 pandemic-related collapse in oil and gas demand led to a downturn in unconventional well completions in North America.

Gross profit percentage decreased to 26.0% compared to 2019 primarily due to lower average selling prices and the impact of lower sales volumes on fixed manufacturing overhead expenses, including excess capacity charges in the second quarter and an increase in reserves for excess inventories.

General and administrative expenses decreased by \$3,760 compared with 2019 primarily due to reductions in outside service costs by \$3,018 and salaries and wages, variable bonus, and other payroll-related costs by \$1,384. These decreases were partially offset by a \$440 increase in depreciation expense.

Selling and distribution expenses decreased by \$2,435 compared with 2019 primarily due to reductions in salaries and wages, variable bonus, and other payroll-related costs by \$1,337, freight expenses by \$1,187 on lower shipping activity, outside service costs by \$791, and travel expenses by \$376. These decreases were partially offset by an increase in the provision for expected credit losses of \$2,861 associated with specifically identified at-risk customer balances combined with an increase to our current expected credit loss reserve.

Amortization of purchased intangibles decreased by \$103 compared with 2019 primarily due to fully amortizing certain customer relationship intangibles during 2019.

Restructuring expense of \$2,922 in 2020 primarily related to asset impairments, severance costs related to downsizing our direct labor workforce as the COVID-19 pandemic negatively impacted crude oil prices and corresponding demand for well perforating systems, as well as costs related to the sale of the Tyumen, Siberia manufacturing facility.

Operating income decreased by \$62,631 compared with 2019 primarily due to a sharp decline in unit sales volume, lower average selling prices, the unfavorable impact of lower sales volume on fixed overhead expenses, and increases in reserves for excess inventories and expected credit losses, partially offset by lower general and administrative and selling and distribution expenses.

Adjusted operating income and Adjusted EBITDA decreased compared with 2019 primarily due to the factors discussed above. See "Overview" above for the explanation of the use of non-GAAP measures. The following is a reconciliation of the most directly comparable GAAP measure to Adjusted operating income and Adjusted EBITDA.

	2020	2019
Operating income	\$ 6,150	\$ 68,781
Adjustments:		
Restructuring expenses, net and asset impairments	2,922	18,624
Restructuring related inventory write down	—	630
Restructuring related accounts receivable write off	—	131
Adjusted operating income	9,072	88,166
Depreciation	6,204	5,213
Amortization of purchased intangible assets	1,059	1,162
Adjusted EBITDA	\$ 16,335	\$ 94,541

NobelClad

	2020	2019	\$ change	% change
Net sales	\$ 82,766	\$ 87,126	\$ (4,360)	-5 %
Gross profit	19,433	22,840	(3,407)	-15 %
Gross profit percentage	23.5 %	26.2 %		
COSTS AND EXPENSES:				
General and administrative expenses	3,388	4,703	(1,315)	-28 %
Selling and distribution expenses	8,423	9,683	(1,260)	-13 %
Amortization of purchased intangible assets	390	382	8	2 %
Restructuring expenses, net and asset impairments	346	879	(533)	-61 %
Operating income	6,886	7,193	(307)	-4 %
Adjusted EBITDA	\$ 10,736	\$ 11,118	\$ (382)	-3 %

Net sales decreased by \$4,360 compared with 2019 due to the timing of shipment of projects out of backlog.

Gross profit percentage decreased to 23.5% primarily due to unfavorable project mix in 2020 versus 2019.

General and administrative expenses decreased by \$1,315 compared with 2019 primarily due to reductions in payroll-related costs and taxes by \$492, travel expenses by \$141, and variable bonus by \$79.

Selling and distribution expenses decreased by \$1,260 compared with 2019 primarily due to reductions in travel expenses by \$529, salaries and wages, variable bonus and other payroll-related costs by \$523, and outside service costs by \$157. These decreases were partially offset by an increase in the provision for expected credit losses of \$178 associated with a customer that declared bankruptcy during the first quarter of 2020.

Restructuring expense, net and asset impairments of \$346 in 2020 primarily related to asset impairments for manufacturing and software assets that were no longer in use and severance costs related to downsizing our direct labor workforce in response to the COVID-19 pandemic.

Operating income decreased by \$307 compared to 2019 as lower general and administrative, selling and distribution, and restructuring expenses offset lower net sales and less favorable project mix.

Adjusted operating income and Adjusted EBITDA decreased due to the factors discussed above. See "Overview" above for the explanation of the use of non-GAAP measures. The following is a reconciliation of the most directly comparable GAAP measure to Adjusted operating income and Adjusted EBITDA.

	2020	2019
Operating income	\$ 6,886	\$ 7,193
Adjustments:		
Restructuring expenses	346	879
Adjusted operating income	7,232	8,072
Depreciation	3,114	2,664
Amortization of purchased intangible assets	390	382
Adjusted EBITDA	\$ 10,736	\$ 11,118

Liquidity and Capital Resources

We have historically financed our operations from a combination of internally generated cash flow, revolving credit borrowings, and various long-term debt arrangements. The COVID-19 pandemic drove a sharp decline in DynaEnergetics' core oil and gas end markets and corresponding well-completion activity and demand for its perforating systems late in the first quarter of 2020. In April 2020, DMC announced several cost-containment actions to reduce our activity-based cost structure, limit spending and protect our balance sheet. These actions included reducing our workforce by 32%, implementing reduced work weeks at DynaEnergetics, significantly cutting selling, general and administrative expenses, reducing our capital expenditures budget by 50% and suspending the quarterly dividend. The decline in crude oil prices and oil and gas demand accelerated early in the second quarter of 2020 and sales volume only partially recovered during the third and fourth quarters. Though NobelClad customers in the downstream energy industry have delayed various repair and maintenance projects and one customer has delayed the award of a large prospective petrochemical order, NobelClad's order backlog increased to \$39,884 at December 31, 2020 from \$31,660 at December 31, 2019. To further preserve liquidity, we entered into an amendment to our credit facility on June 25, 2020 to, among other provisions, maintain our \$50,000 revolving credit facility and to waive the debt service coverage ratio for the quarters ending September 30, 2020, December 31, 2020, and March 31, 2021. These measures enabled us to improve our net cash position from \$6,081 at December 31, 2019 to \$16,923 at December 31, 2020, maintain our fully undrawn and available \$50,000 revolving credit facility, and provide covenant relief for three quarters.

We also took action to allow future flexibility in accessing the capital markets. We filed a shelf registration statement on Form S-3 with the Securities and Exchange Commission, which became effective on May 28, 2020, pursuant to which we registered for sale up to \$150 million of certain of our securities from time to time and on terms that we may determine in the future. On October 22, 2020, we commenced an at-the-market equity program under the shelf registration statement, which allows us to sell and issue up to \$75 million in shares of our common stock from time to time, and during the fourth quarter of 2020 we sold 608,360 shares of common stock for net proceeds of \$25,740. In connection with the commencement of the at-the-market equity program, we also amended our credit facility to waive the requirement to repay outstanding amounts under the credit facility with proceeds from the program. This allows us full flexibility as to the use of proceeds from the program, as they are available over time. Our ability to access this capital may be limited by market conditions at the time of any future

potential sale. While we were able to sell shares during the fourth quarter of 2020, there can be no assurance that any future capital will be available on acceptable terms or at all.

With due consideration of the COVID-19 global pandemic and the resulting severe disruption of our end markets, we believe that cash flow from operations, funds available under our current credit facilities and any future replacement thereof, and potential proceeds from our at-the-market offering, will be sufficient to fund the working capital, debt service, and other capital expenditure requirements of our current business operations for the foreseeable future. Nevertheless, our ability to generate sufficient cash flows from operations will depend upon our success in executing our strategies. If we are unable to (i) realize sales from our backlog; (ii) secure new customer orders; (iii) continue selling products at profitable margins; and (iv) continue to implement cost-effective internal processes, our ability to meet cash requirements through operating activities could be impacted. Furthermore, any restriction on the availability of borrowings under our credit facilities could negatively affect our ability to meet future cash requirements. We will continue to monitor the continuing unprecedented financial and market conditions, including the impacts COVID-19 will have on credit availability and capital markets.

We declared a quarterly dividend of \$0.125 per share in the first quarter of 2020 and \$0.29 per share in 2019. On April 23, 2020, DMC announced that its Board of Directors suspended the quarterly dividend indefinitely due to the uncertain economic outlook caused by the COVID-19 pandemic. Future dividends may be affected by, among other items, our views on potential future capital requirements, future business prospects, debt covenant compliance considerations, changes in income tax laws, and any other factors that our Board of Directors deems relevant. Any determination to pay cash dividends will be at the discretion of the Board of Directors.

Debt facilities

On March 8, 2018, we entered into a five-year \$75,000 syndicated credit agreement ("credit facility") which allows for revolving loans of up to \$50,000 with a \$20,000 US dollar equivalent sublimit for alternative currency loans. In addition, the agreement provides for a \$25,000 Capital Expenditure Facility ("Capex Facility") which was used to assist in financing our DynaEnergetics manufacturing expansion project in Blum, Texas. The Capex Facility allowed for advances to fund capital expenditures of the Blum expansion project during year one of the credit facility. In March 2019, the Capex Facility converted from a revolving loan to a term loan amortizable at 12.5% of principal per year with a balloon payment for the outstanding balance upon the credit facility maturity date in 2023. In 2019, we prepaid an additional \$7,000 above the required amortization amount. The credit facility has an accordion feature to increase the commitments by \$100,000 under the revolving loan class and/or by adding a term loan subject to approval by applicable lenders. We entered into the credit facility with a syndicate of three banks, with KeyBank, N.A. acting as administrative agent. The syndicated credit facility is secured by the assets of DMC including accounts receivable, inventory, and fixed assets, as well as guarantees and share pledges by DMC and its subsidiaries.

Borrowings under the \$50,000 revolving loan limit can be in the form of one, two, three, or six-month London Interbank Offered Rate ("LIBOR") loans. Additionally, US dollar borrowings on the revolving loan can be in the form of Base Rate loans (Base Rate borrowings are based on the greater of the administrative agent's Prime rate, an adjusted Federal Funds rate or an adjusted LIBOR rate). LIBOR loans bear interest at the applicable LIBOR rate plus an applicable margin (varying from 1.50% to 3.00%). Base Rate loans bear interest at the defined Base rate plus an applicable margin (varying from 0.50% to 2.00%).

Borrowings under a \$20,000 alternate currency sublimit can be in euros, Canadian dollars, pounds sterling, or in any other currency acceptable to the administrative agent. Alternative currency borrowings denominated in euros, pounds sterling, and any other currency that is dealt with on the London Interbank Deposit Market shall be comprised of LIBOR loans and bear interest at the LIBOR rate plus an applicable margin (varying from 1.50% to 3.00%).

On June 25, 2020, we entered into an amendment ("Amendment") to the credit facility related to the debt-to-EBITDA leverage ratio covenant and a debt service coverage ratio covenant, among other things. The Amendment waives the debt service coverage ratio covenant for the quarters ending September 30, 2020, December 31, 2020, and March 31, 2021. The debt service coverage ratio minimum of 1.35 to 1 was applicable for the quarter ending June 30, 2020 and will resume beginning with the quarter ending June 30, 2021 and thereafter.

Additionally, the Amendment adds a minimum liquidity covenant requiring the total of cash and cash equivalents held by U.S. subsidiaries and available borrowing capacity under the credit facility to exceed \$10,000 for the quarters ending September 30, 2020, December 31, 2020, and March 31, 2021. The minimum liquidity covenant is not required after the quarter ending March 31, 2021.

During the period from the Amendment through August 31, 2020, borrowings outstanding under the credit facility bore interest at LIBOR plus a margin of 1.75% or at a Base Rate (as defined in the credit facility) plus a margin of 0.75%. For the

period from September 1, 2020 through the date of receipt of the covenant compliance certificate for the quarter ending March 31, 2021, borrowings outstanding under the credit facility will bear interest at a LIBOR plus a margin of 1.75% to 3.00% or at a Base Rate plus a margin of 0.75% to 2.00%. In each case, the margin is based on the Company's Leverage Ratio of Consolidated Funded Indebtedness (as defined in the credit facility) on the last day of such period to Consolidated Pro Forma EBITDA for such period. Additionally, the Amendment sets the minimum LIBOR at 0.75%.

LIBOR, the interest rate benchmark used as a reference rate on our credit facility borrowings, is expected to be phased out after calendar year 2021, when private-sector banks are no longer required to report the information used to set the rate. Our credit facility amendments address the replacement of LIBOR with an alternative benchmark rate. At this time, no consensus exists as to what rate or rates will become accepted alternatives to LIBOR, although the U.S. Federal Reserve, in connection with the Alternative Reference Rates Committee, a steering committee comprised of large U.S. financial institutions, is considering replacing U.S. dollar LIBOR with the Secured Overnight Financing Rate (SOFR). The consequence of a new benchmark rate is unknown at this time but could result in an increase in the cost of our variable rate debt.

The leverage ratio is defined in the credit facility for any trailing four quarter period as the ratio of Consolidated Funded Indebtedness (as defined in the agreement) on the last day of such period to Consolidated Pro Forma EBITDA for such period. For the December 31, 2020 reporting period, the maximum leverage ratio permitted was 3.00 to 1.0. The actual leverage ratio as of December 31, 2020, calculated in accordance with the credit facility, as amended, was 0.6 to 1.0.

The minimum liquidity covenant requires the total of cash and cash equivalents held by U.S. subsidiaries and available borrowing capacity under the credit facility to exceed \$10,000. The liquidity as of December 31, 2020, calculated in accordance with the credit facility, as amended, was \$64,793.

Our credit facility, as amended, also includes various other covenants and restrictions, certain of which relate to the payment of dividends or other distributions to stockholders, redemption of capital stock, incurrence of additional indebtedness, mortgaging, and pledging or disposition of major assets. As of December 31, 2020, we were in compliance with all financial covenants and other provisions of our debt agreements.

As of December 31, 2020, U.S. dollar revolving loans of zero and borrowings of \$11,750 on the Capital Expenditure facility were outstanding under our credit facility and our available borrowing capacity was \$50,000.

We also maintain a line of credit with a German bank for certain European operations. This line of credit provides a borrowing capacity of €7,000.

Other contractual obligations and commitments

The table below presents principal cash flows by expected maturity dates for our debt obligations and other contractual obligations and commitments as of December 31, 2020:

	Payment Due by Period As of December 31, 2020				Total
	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years	
Other Contractual Obligations					
Credit facility (1)	\$ 3,125	\$ 8,625	\$ —	\$ —	\$ 11,750
Operating lease obligations (2)	1,741	3,805	3,351	5,200	14,097
Purchase obligations (3)	22,653	—	—	—	22,653
Total	\$ 27,519	\$ 12,430	\$ 3,351	\$ 5,200	\$ 48,500

(1) Represents outstanding borrowings under our credit facility but excludes interest expense on outstanding credit facility borrowings. For more information about our debt obligations, see Note 3 "Debt" to our Consolidated Financial Statements.

(2) The operating lease obligations presented reflect future minimum lease payments due under non-cancelable portions of our leases as of December 31, 2020. Our operating lease obligations are described in Note 2 "Summary of Significant Accounting Policies" of the Notes to Consolidated Financial Statements.

(3) Amounts represent commitments to purchase goods or services to be utilized in the normal course of business. These amounts are not reflected in the accompanying Consolidated Balance Sheets.

Cash flows from operating activities

Net cash provided by operating activities was \$30,362 in 2020 compared with \$64,594 in 2019. The decrease primarily was due to a decline in net income, partially offset by a significant reduction in net working capital and nonrecurring anti-dumping duties and penalties in 2019. The net working capital change in 2020 included lower accounts receivable from a decline in sales and lower accounts payable resulting from reduced purchasing activity.

Cash flows used in investing activities

Net cash used in investing activities in 2020 totaled \$39,557 and primarily consisted of investment in marketable securities of \$25,740 and acquisition of property, plant and equipment of \$11,741 for DynaEnergetics and \$1,975 for NobelClad.

Net cash used in investing activities in 2019 totaled \$25,947 and primarily consisted of acquisition of property, plant and equipment of \$19,785 for DynaEnergetics and \$5,560 for NobelClad. The decrease in capital expenditures in 2020 versus 2019 principally related to cost containment actions taken in response to the COVID-19 pandemic on our business.

Cash flows from financing activities

Net cash provided by financing activities for 2020 totaled \$17,317, which included proceeds from our ATM equity program of \$25,740 partially offset by payment of quarterly dividends of \$3,749, repayments on the Capex Facility of \$3,125, and treasury stock purchases of \$1,890.

Net cash used in financing activities for 2019 totaled \$30,562, which included net repayments on revolving loans of \$17,129, repayments on the Capex Facility of \$10,125, payment of quarterly dividends of \$2,762, and treasury stock purchases of \$1,103.

Critical Accounting Policies and Estimates

Our historical Consolidated Financial Statements and notes to our historical Consolidated Financial Statements contain information that is pertinent to our management's discussion and analysis of financial condition and results of operations. Preparation of financial statements in conformity with accounting principles generally accepted in the United States requires that our management make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. However, the accounting principles used by us generally do not change our reported cash flows or liquidity. Existing rules must be interpreted and judgments made on how the specifics of a given rule apply to us.

In management's opinion, the more significant reporting areas impacted by management's judgments and estimates are revenue recognition, asset impairments, intangible assets, and income taxes. Management's judgments and estimates in these areas are based on information available from both internal and external sources, and actual results could differ from the estimates as additional information becomes known. We believe the following to be our most critical accounting policies.

Revenue Recognition

On January 1, 2018, the Company adopted a new accounting standard, as amended, regarding revenue from contracts with customers using the modified retrospective approach, which was applied to all contracts with customers. Under the new standard, an entity is required to recognize revenue to depict the transfer of promised goods to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods.

There was no cumulative financial statement effect of initially applying the new revenue standard because an analysis of our contracts supported the recognition of revenue consistent with our historical approach. In accordance with the modified retrospective approach, the comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. The Company does not expect the adoption of the new revenue standard to have a material impact on the Company's revenues or net income on an ongoing basis.

The Company's revenues are primarily derived from consideration paid by customers for tangible goods. The Company analyzes its different goods by segment to determine the appropriate basis for revenue recognition, as described below. Revenue is not generated from sources other than contracts with customers and revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities. There are no material upfront costs for operations that are incurred from contracts with customers. On occasion, NobelClad and DynaEnergetics may require customers to make advance payments prior to the shipment of goods. We record such payments as contract liabilities in our Consolidated Balance Sheets.

Our rights to payments for goods transferred to customers are conditional only on the passage of time and not on any other criteria. Payment terms and conditions vary by contract, although terms generally include a requirement of payment within 30 to 60 days. In instances when we require customers to make advance payments prior to the shipment of their orders, we record a contract liability. We have determined that our contract liabilities do not include a significant financing component given the short duration between order initiation and order fulfillment within each of our segments.

NobelClad

Customers agree to terms and conditions at the time of initiating an order. The significant majority of transactions contain a single performance obligation - the delivery of a clad metal product. In instances where multiple products are included within an order, each product represents a separate performance obligation given that: (1) the customer can benefit from each product on a standalone basis and (2) each product is distinct within the context of the contract.

The transaction price is readily determinable and fixed at the time the transaction is entered into with the customer. NobelClad is entitled to each product's transaction price upon the customer obtaining control of the item. Such control occurs as of a point in time, which is generally based upon relevant International Commercial Terms ("Incoterms") as it relates to product ownership and legal title being transferred. Upon fulfillment of applicable Incoterms, NobelClad has performed its contractual requirements such that it has a present right to payment, and the customer from that point forward bears all risks and rewards of ownership. In addition, at this date, the customer has the ability to direct the use of, or restrict access to, the asset. No payment discounts, rebates, refunds, or any other forms of variable consideration are included within its contracts. NobelClad also does not provide service-type warranties either via written agreement or customary business practice, nor does it allow customer returns.

For contracts that contain only one performance obligation, the total transaction price is allocated to the sole performance obligation. For contracts which contain multiple distinct performance obligations, judgment is required to determine the standalone selling price ("SSP") for each performance obligation. NobelClad uses the expected cost plus margin approach in order to estimate SSP, whereby an entity forecasts its expected costs of satisfying a performance obligation and then adds an appropriate margin for that good. The required judgment described herein largely is mitigated given the short duration between order initiation and complete order fulfillment.

DynaEnergetics

Customers agree to terms and conditions at the time of initiating an order. Transactions contain standard products, which may include perforating system components, such as detonating cord, or systems and associated hardware, including Factory-Assembled, Performance-Assured™ DynaStage® perforating systems. In instances where multiple products are included within an order, each product represents a separate performance obligation given that: (1) the customer can benefit from each product on a standalone basis and (2) each product is distinct within the context of the contract.

The transaction price is readily determinable and fixed at the time the transaction is entered into with the customer. DynaEnergetics is entitled to each product's transaction price upon the customer obtaining control of the item. Such control occurs as of a point in time, which is generally based upon relevant Incoterms as it relates to product ownership and legal title being transferred. Upon fulfillment of applicable Incoterms, DynaEnergetics has performed its contractual requirements such that it has a present right to payment, and the customer from that point forward bears all risks and rewards of ownership. In addition, at this date, the customer has the ability to direct the use of, or restrict access to, the asset. No payment discounts, rebates, refunds, or any other forms of variable consideration are included within contracts. DynaEnergetics also does not provide service-type warranties either via written agreement or customary business practice, nor does it allow customer returns without its prior approval.

For orders that contain only one performance obligation, the total transaction price is allocated to the sole performance obligation. For orders that contain multiple products being purchased by the customer, judgment is required to determine SSP for each distinct performance obligation. However, such judgment largely is mitigated given that products purchased are

generally shipped at the same time. In instances where products purchased are not shipped at the same time, DynaEnergetics uses the contractually stated price to determine SSP as this price approximates the price of each good as sold separately.

Inventories

Inventories are stated at the lower-of-cost (first-in, first-out) or net realizable value. Significant cost elements included in inventory are material, labor, freight, subcontract costs, and manufacturing overhead. As necessary, we adjust inventory to its net realizable value by recording provisions for excess, slow moving and obsolete inventory. To determine provision amounts, we regularly review inventory quantities on hand and values, and compare them to estimates of future product demand, market conditions, production requirements and technological developments.

Shipping and handling costs incurred by us upon shipment from our manufacturing facilities directly to customers are included in "Cost of products sold" while shipping and handling costs incurred by us upon shipment from our distribution centers to customers are included in "Selling and distribution expenses" in the accompanying Consolidated Statements of Operations.

Asset impairments

Finite-lived assets are tested for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. We compare the expected undiscounted future operating cash flows associated with these finite-lived assets to their respective carrying values to determine if they are fully recoverable when indicators of impairment are present. If the expected future operating cash flows of an asset are not sufficient to recover the carrying value, we estimate the fair value of the asset. Impairment is recognized when the carrying amount of the asset is not recoverable and when carrying value exceeds fair value. Long-lived assets to be disposed of, if any, are reported at the lower of carrying amount or fair value less cost to sell.

For the year ended December 31, 2020, the COVID-19 pandemic-related collapse in oil and gas demand led to a downturn in well completions and the corresponding demand for DynaEnergetics' products. As a result, DynaEnergetics recorded asset impairment charges during 2020 on certain manufacturing assets that will no longer be utilized in production at its Blum, Texas and Troisdorf, Germany facilities. There were no other indicators of impairment of finite-lived assets for 2020. For the year ended December 31, 2019, we recognized an impairment charge related to production assets in DynaEnergetics' operations in Tyumen, Siberia, which were closed in 2019. For the year ended December 31, 2018, no impairments were recorded. Refer to Note 10 "Restructuring and Asset Impairments" for additional discussion.

Income taxes

We recognize deferred tax assets and liabilities for the expected future income tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. Any effects of changes in income tax rates or tax laws are included in the provision for income taxes in the period of enactment. The deferred income tax impact of tax credits are recognized as an immediate adjustment to income tax expense. We recognize deferred tax assets for the expected future effects of all deductible temporary differences to the extent we believe these assets will more likely than not be realized. We record a valuation allowance when, based on current circumstances, it is more likely than not that all or a portion of the deferred tax assets will not be realized. In making such determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, recent financial operations and their associated valuation allowances, if any.

We recognize the tax benefits from uncertain tax positions only when it is more likely than not, based on the technical merits of the position, the tax position will be sustained upon examination, including the resolution of any related appeals or litigation. The tax benefits recognized in the Consolidated Financial Statements from such a position are measured as the largest benefit that is more likely than not to be realized upon ultimate resolution. We recognize interest and penalties related to uncertain tax positions in operating expense.

Off Balance Sheet Arrangements

At December 31, 2020, we had no off-balance sheet arrangements, as defined by SEC rules, that have or are reasonably likely to have a material current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Recent Accounting Pronouncements

Please refer to Note 2 "Significant Accounting Policies" to our Consolidated Financial Statements in this annual report for a discussion of recent accounting pronouncements and their anticipated effect on our business.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Risk

Our Consolidated Financial Statements are expressed in U.S. dollars, but a portion of our business is conducted in currencies other than U.S. dollars. Changes in the exchange rates for such currencies into U.S. dollars can affect our revenues, earnings, and the carrying value of our assets and liabilities in our Consolidated Balance Sheets, either positively or negatively. Sales made in currencies other than U.S. dollars accounted for 17%, 12%, and 21% of total sales for the years ended 2020, 2019, and 2018, respectively. As a result of foreign currency risk, we may experience economic loss and a negative impact on earnings and equity with respect to our holdings solely as a result of foreign currency exchange rate fluctuations. Our primary exposure to foreign currency risk is the Euro due to the percentage of our U.S. dollar revenue that is derived from countries where the Euro is the functional currency.

We use foreign currency forward contracts to offset foreign exchange rate fluctuation on foreign currency denominated asset and liability positions. Foreign currency forward contracts are sensitive to changes in foreign currency exchange rates. Consistent with the use of these contracts to neutralize the effect of exchange rate fluctuations, such unrealized losses or gains would be offset by corresponding gains or losses, respectively, in the remeasurement of the asset and liability positions being hedged. As such, these forward currency contracts and the offsetting underlying asset and liability positions do not create material market risk. The notional amount of the foreign exchange contracts at December 31, 2020 and 2019 was \$2,092 and \$22,860, respectively.

Interest Rate Risk

The company's interest expense, in part, is sensitive to the general level of interest rates in North America and Europe. At December 31, 2020, all of the company's debt was subject to variable interest rates. A one percentage point change in average interest rates would cause interest expense, net in 2020 to increase by \$146. This was determined by considering the impact of a hypothetical interest rate on the company's average outstanding variable debt. This analysis does not consider the effect of the level of overall economic activity that could exist. In the event of a change in the level of economic activity, which may adversely impact interest rates, the company could likely take actions to further mitigate any potential negative exposure to the change. However, due to the uncertainty of the specific actions that might be taken and their possible effects, the sensitivity analysis assumes no changes in the company's financial structure.

ITEM 8. Financial Statements and Supplementary Data

**DMC GLOBAL INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

**As of December 31, 2020 and 2019 and for Each of the Three Years Ended
December 31, 2020, 2019 and 2018**

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	49
Financial Statements:	
Consolidated Balance Sheets	51
Consolidated Statements of Operations	52
Consolidated Statements of Comprehensive Income	53
Consolidated Statements of Stockholders' Equity	54
Consolidated Statements of Cash Flows	55
Notes to Consolidated Financial Statements	56

The consolidated financial statement schedules required by Regulation S-X are filed under Item 15 "Exhibits and Financial Statement Schedules".

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of DMC Global Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of DMC Global Inc. (the Company) as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15(a) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, 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 December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 22, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of net realizable value adjustments to DynaEnergetics finished goods inventories for excess or obsolescence

Description of the Matter

At December 31, 2020, the Company's DynaEnergetics' finished goods inventories were \$12.8 million. As described in Note 2 to the consolidated financial statements, inventories are stated at the lower of cost or net realizable value. Write-downs of inventories to net realizable value are based upon historical experience, estimated future product demand, market conditions, production requirements and technological developments.

Auditing management's lower of cost or net realizable value determination for DynaEnergetics excess or obsolete inventories was especially challenging and highly judgmental because the estimates rely on factors that are affected by market and economic conditions outside of the Company's control. In particular, the excess and obsolete inventory calculations are sensitive to future demand for the Company's products.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's determination of the lower of cost or net realizable value for excess and obsolete inventories. For example, we tested controls over management's review of excess and obsolete inventories which includes their review of the assumptions and data supporting current and future product demand, including consideration of recent inventory turnover.

Our audit procedures to test the net realizable value adjustments to inventories for excess or obsolescence included, among others, testing the completeness and accuracy of the underlying data used in management's assessment. We evaluated the appropriateness and consistency of management's methods and assumptions used in developing their estimates around forecasted sales. We held discussions with senior financial and operating management to determine whether any strategic or operational changes in the business would impact expected demand or related carrying value of on-hand inventory. We assessed the reasonableness of management's excess and obsolescence assumptions by comparing those assumptions to historical data and trends, as well as third-party market information which addresses expected subsequent period trends in the industry, including trends that could impact the movement of on-hand inventory sold by the Company.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2002.

Denver, Colorado
February 22, 2021

DMC GLOBAL INC.
CONSOLIDATED BALANCE SHEETS
(Amounts in Thousands, Except Share and Per Share Data)

	As of December 31,	
	2020	2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 28,187	\$ 20,353
Marketable securities	25,736	—
Accounts receivable, net of allowance for doubtful accounts of \$2,605 and \$967, respectively	31,366	60,855
Inventories	52,573	53,728
Prepaid expenses and other	5,448	9,417
Total current assets	143,310	144,353
Property, plant and equipment	180,278	174,741
Less - accumulated depreciation	(70,867)	(66,507)
Property, plant and equipment, net	109,411	108,234
Purchased intangible assets, net	3,665	5,880
Deferred tax assets	4,582	3,836
Other assets	18,677	15,118
Total assets	\$ 279,645	\$ 277,421
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 17,574	\$ 34,758
Accrued expenses	5,301	6,903
Dividend payable	—	1,866
Accrued income taxes	7,279	9,651
Accrued employee compensation and benefits	7,160	10,668
Contract liabilities	4,928	2,736
Current portion of long-term debt	3,125	3,125
Other current liabilities	1,741	1,716
Total current liabilities	47,108	71,423
Long-term debt	8,139	11,147
Deferred tax liabilities	2,254	3,786
Other long-term liabilities	25,230	18,924
Total liabilities	82,731	105,280
Commitments and Contingencies (Note 9)		
Stockholders' Equity:		
Preferred stock, \$0.05 par value; 4,000,000 shares authorized; no issued and outstanding shares	—	—
Common stock, \$0.05 par value; 25,000,000 shares authorized; 15,389,285 and 14,652,675 shares outstanding, respectively	796	756
Additional paid-in capital	117,387	85,639
Retained earnings	115,657	119,002
Other cumulative comprehensive loss	(22,962)	(25,803)
Treasury stock, at cost, and company stock held for deferred compensation, at par; 528,274 and 464,532 shares, respectively	(13,964)	(7,453)
Total stockholders' equity	196,914	172,141
Total liabilities and stockholders' equity	\$ 279,645	\$ 277,421

The accompanying notes are an integral part of these Consolidated Financial Statements.

DMC GLOBAL INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(Amounts in Thousands, Except Share and Per Share Data)

	Year Ended December 31,		
	2020	2019	2018
Net sales	\$ 229,161	\$ 397,550	\$ 326,429
Cost of products sold	172,308	252,627	215,734
Gross profit	56,853	144,923	110,695
Costs and expenses:			
General and administrative expenses	29,150	37,976	38,452
Selling and distribution expenses	23,863	27,475	22,761
Amortization of purchased intangible assets	1,449	1,544	2,944
Restructuring expenses, net and asset impairments	3,387	19,503	1,114
Anti-dumping duty penalties	—	—	8,000
Total costs and expenses	57,849	86,498	73,271
Operating (loss) income	(996)	58,425	37,424
Other expense:			
Other expense, net	(233)	(169)	(1,202)
Interest expense, net	(731)	(1,554)	(1,615)
(Loss) income before income taxes	(1,960)	56,702	34,607
Income tax (benefit) provision	(548)	22,661	4,134
Net (loss) income	(1,412)	34,041	30,473
Net (loss) income per share			
Basic	\$ (0.10)	\$ 2.29	\$ 2.05
Diluted	\$ (0.10)	\$ 2.28	\$ 2.04
Weighted-average shares outstanding:			
Basic	14,790,296	14,579,608	14,529,745
Diluted	14,790,296	14,655,350	14,620,635
Dividends declared per common share	\$ 0.125	\$ 0.29	\$ 0.08

The accompanying notes are an integral part of these Consolidated Financial Statements.

DMC GLOBAL INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Amounts in Thousands)

	Year Ended December 31,		
	2020	2019	2018
Net (loss) income	\$ (1,412)	\$ 34,041	\$ 30,473
Change in cumulative foreign currency translation adjustment	2,841	(1,209)	(4,195)
Reclassification of DynaEnergetics Siberia cumulative translation loss to Statement of Operations upon substantial liquidation	—	10,420	—
Total comprehensive income	<u>\$ 1,429</u>	<u>\$ 43,252</u>	<u>\$ 26,278</u>

The accompanying notes are an integral part of these Consolidated Financial Statements.

DMC GLOBAL INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Amounts in Thousands, Except Share Data)

	Common Stock		Additional Paid-In Capital	Retained Earnings	Other Cumulative Comprehensive Loss	Treasury Stock, at cost, and Company Stock Held for Deferred Compensation, at par		Total
	Shares	Amount				Shares	Amount	
Balances, December 31, 2017	14,821,801	\$ 741	\$ 76,146	\$ 60,074	\$ (30,819)	(39,783)	\$ (362)	\$ 105,780
Net income	—	—	—	30,473	—	—	—	30,473
Change in cumulative foreign currency translation adjustment	—	—	—	—	(4,195)	—	—	(4,195)
Shares issued in connection with stock compensation plans	166,161	8	434	—	—	—	—	442
Adjustment for cumulative effect from change in accounting principle (ASU 2016-16)	—	—	—	(65)	—	—	—	(65)
Stock-based compensation	—	—	3,497	—	—	—	—	3,497
Dividends declared	—	—	—	(1,191)	—	—	—	(1,191)
Treasury stock activity	—	—	—	—	—	(42,403)	(455)	(455)
Balances, December 31, 2018	14,987,962	\$ 749	\$ 80,077	\$ 89,291	\$ (35,014)	(82,186)	\$ (817)	\$ 134,286
Net income	—	—	—	34,041	—	—	—	34,041
Change in cumulative foreign currency translation adjustment	—	—	—	—	(1,209)	—	—	(1,209)
Reclassification of DynaEnergetics Siberia cumulative translation loss to Statement of Operations upon substantial liquidation	—	—	—	—	10,420	—	—	10,420
Shares issued in connection with stock compensation plans	129,245	7	550	—	—	7,502	—	557
Stock-based compensation	—	—	5,012	—	—	—	—	5,012
Dividends declared	—	—	—	(4,330)	—	—	—	(4,330)
Treasury stock activity	—	—	—	—	—	(389,848)	(6,636)	(6,636)
Balances, December 31, 2019	15,117,207	\$ 756	\$ 85,639	\$ 119,002	\$ (25,803)	(464,532)	\$ (7,453)	\$ 172,141
Net loss	—	—	—	(1,412)	—	—	—	(1,412)
Change in cumulative foreign currency translation adjustment	—	—	—	—	2,841	—	—	2,841
Shares issued in connection with at-the-market offering program	608,360	30	25,710	—	—	—	—	25,740
Shares issued in connection with stock compensation plans	191,992	10	421	—	—	—	—	431
Adjustment for cumulative effect from change in accounting principle (ASU 2016-13)	—	—	—	(50)	—	—	—	(50)
Stock-based compensation	—	—	5,608	—	—	—	—	5,608
Dividends declared	—	—	—	(1,883)	—	—	—	(1,883)
Treasury stock activity	—	—	9	—	—	(63,742)	(6,511)	(6,502)
Balances, December 31, 2020	15,917,559	\$ 796	\$ 117,387	\$ 115,657	\$ (22,962)	(528,274)	\$ (13,964)	\$ 196,914

The accompanying notes are an integral part of these Consolidated Financial Statements.

DMC GLOBAL INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in Thousands)

	Year Ended December 31,		
	2020	2019	2018
Cash flows provided by operating activities:			
Net (loss) income	\$ (1,412)	\$ 34,041	\$ 30,473
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation	9,632	8,316	6,576
Amortization of purchased intangible assets	1,449	1,544	2,944
Amortization and write-off of deferred debt issuance costs	207	178	314
Stock-based compensation	5,675	5,204	3,580
Deferred income tax benefit	(2,313)	4,289	(3,653)
Loss on disposal of property, plant and equipment	247	530	78
Restructuring expenses, net and asset impairments	3,387	19,503	1,114
Transition tax liability	—	—	(679)
Change in:			
Accounts receivable, net	30,227	(1,221)	(11,409)
Inventories	2,992	(2,671)	(16,610)
Prepaid expenses and other	675	(5,724)	491
Accounts payable	(14,772)	10,145	2,197
Contract liabilities	1,985	1,603	(4,721)
Accrued anti-dumping duties and penalties	—	(8,000)	4,391
Accrued expenses and other liabilities	(7,617)	(3,143)	12,552
Net cash provided by operating activities	30,362	64,594	27,638
Cash flows used in investing activities:			
Investment in marketable securities	(25,740)	—	—
Acquisition of property, plant and equipment	(13,853)	(27,210)	(45,095)
Proceeds on sale of property, plant and equipment	36	1,263	—
Net cash used in investing activities	(39,557)	(25,947)	(45,095)
Cash flows provided by (used in) financing activities:			
Payments on revolving loans, net	—	(17,129)	(1,628)
(Payments) borrowings on capital expenditure facility	(3,125)	(10,125)	25,000
Payment of dividends	(3,749)	(2,762)	(1,189)
Payment of deferred debt issuance costs	(90)	—	(314)
Net proceeds from issuance of common stock through at-the-market offering program	25,740	—	—
Net proceeds from issuance of common stock to employees and directors	431	557	442
Treasury stock purchases	(1,890)	(1,103)	(453)
Net cash provided by (used in) financing activities	17,317	(30,562)	21,858
Effects of exchange rates on cash	(288)	(1,107)	(9)
Net increase in cash and cash equivalents	7,834	6,978	4,392
Cash and cash equivalents, beginning of the period	20,353	13,375	8,983
Cash and cash equivalents, end of the period	\$ 28,187	\$ 20,353	\$ 13,375
Supplemental disclosure of cash flow information:			
Non-cash lease liabilities arising from obtaining right-of-use assets	\$ —	\$ 8,821	\$ —
Cash paid during the period for -			
Interest	\$ 402	\$ 1,445	\$ 1,383
Income taxes, net	\$ 497	\$ 20,995	\$ 1,284

The accompanying notes are an integral part of these Consolidated Financial Statements.

DMC GLOBAL INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2020
(Amounts in Thousands, Except Share and Per Share Data)

1. ORGANIZATION AND BUSINESS

DMC Global Inc. ("DMC", "we", "us", "our", or the "Company") was incorporated in the state of Colorado in 1971 and reincorporated in the state of Delaware in 1997. DMC is a diversified holding company headquartered in Broomfield, Colorado and has manufacturing facilities in the United States and Germany. DMC's portfolio currently consists of two businesses: DynaEnergetics and NobelClad, which collectively address the energy, industrial processing and transportation markets. DynaEnergetics is an international developer, manufacturer and marketer of advanced explosive components and systems used to perforate oil and gas wells. NobelClad is a leading global manufacturer of explosion-welded clad metal plates, which are used to fabricate capital equipment utilized within various process industries and other industrial sectors.

DMC's objective is to identify well-run businesses and strong management teams and support them with long-term capital and strategic, legal, technology and operating resources. Our approach helps our portfolio companies grow core businesses, launch new initiatives, upgrade technologies and systems to support their long-term strategy, and make acquisitions that improve their competitive positions and expand their markets. DMC's culture is to foster local innovation versus centralized control and to stand behind our businesses in ways that truly add value.

2. SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The Company's consolidated financial statements ("Consolidated Financial Statements") include the accounts of DMC and its controlled subsidiaries. Only subsidiaries in which controlling interests are maintained are consolidated. All significant intercompany accounts, profits, and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of 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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Foreign Operations and Foreign Exchange Rate Risk

The functional currency of our foreign operations is the applicable local currency for each affiliate company. Assets and liabilities of foreign subsidiaries for which the functional currency is the local currency are translated at exchange rates in effect at period-end, and the Statements of Operations are translated at the average exchange rates during the period. Exchange rate fluctuations on translating foreign currency financial statements into U.S. dollars are referred to as translation adjustments. Translation adjustments are recorded as a separate component of stockholders' equity and are included in other cumulative comprehensive loss. Transactions denominated in currencies other than the functional currency are recorded based on exchange rates at the time such transactions arise. Subsequent changes in exchange rates result in transaction gains and losses, which are reflected in "Other expense, net" as unrealized, based on period-end exchange rates, or realized, upon settlement of the transaction. Cash flows from our operations in foreign countries are translated at actual exchange rates when known, or at the average rate for the period. As a result, amounts related to assets and liabilities reported in the Consolidated Statements of Cash Flows will not agree to changes in the corresponding balances in the Consolidated Balance Sheets. The effects of exchange rate changes on cash balances held in foreign currencies are reported as a separate line item below cash flows from financing activities.

Cash and Cash Equivalents

For purposes of the Consolidated Financial Statements, we consider highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

Marketable Securities

We typically invest in highly rated securities, with the primary objectives of preserving principal, providing access to liquidity to fund the ongoing operations and strategic needs of the Company and its subsidiaries, and achieving a yield that is commensurate with low risk and highly liquid securities. The Company's investment policy generally limits the amount of credit exposure to any one issuer.

Our investments in marketable debt securities are classified as either trading, available-for-sale or held-to-maturity based on the nature of the securities and their availability for use in current operations. The Company classifies its marketable debt securities on the Consolidated Balance Sheet as current or non-current based on maturities and our expectations of sales and redemptions in the following year.

As of December 31, 2020, our investments were comprised solely of U.S. Treasury securities with maturities ranging from three to twelve months, and these investments have been classified and accounted for as trading securities. The Company's investments in U.S. Treasury securities are measured at fair value with gains and losses recognized in the Consolidated Statement of Operations within "Other expense, net."

Accounts Receivable

In June 2016, the Financial Accounting Standards Board (FASB) issued a new accounting pronouncement regarding credit losses for financial instruments. The new standard requires entities to measure expected credit losses for certain financial assets held at the reporting date using a current expected credit loss model, which is based on historical experience, adjusted for current conditions and reasonable and supportable forecasts. The Company's financial instruments within the scope of this guidance primarily include accounts receivable and marketable securities.

On January 1, 2020, we adopted the new standard under the modified retrospective approach, such that comparative information has not been restated and continues to be reported under accounting standards in effect for those periods. The Company recognized the cumulative effect of the new accounting standard as an adjustment to the January 1, 2020 balance of Retained Earnings in the Condensed Consolidated Balance Sheet, and the adoption of the new accounting standard did not have a material impact on the Company's financial position and results of operations given limited historical write-off activity within each of the Company's segments.

In accordance with the new standard, the Company has disaggregated pools of accounts receivable balances by business, geography and/or customer risk profile, and has used history and other experience to establish an allowance for credit losses at the time the receivable is recognized, rather than the historical approach of establishing reserves when accounts receivable balances age or demonstrate they will not be collected. To measure expected credit losses, we have elected to pool trade receivables by segment and analyze DynaEnergetics and NobelClad accounts receivable balances as separate populations. Within each segment, receivables exhibit similar risk characteristics.

During the year ended December 31, 2020, we increased our expected loss rate due to the COVID-19 pandemic-related collapse in oil and gas demand and resulting downturn in well completions. In addition, we continued to review receivables outstanding, including aged balances, and in circumstances where we are aware of a specific customer's inability to meet its financial obligation to us, we recorded a specific allowance for credit losses (with the offsetting expense charged to "Selling and distribution expenses" in our Condensed Consolidated Statements of Operations) against the amounts due, reducing the net recognized receivable to the amount we estimate will be collected. In total, provisions of \$3,381 were recorded during the year ended December 31, 2020. For the years ended December 31, 2019 and 2018, we recorded \$575 and \$282 of bad debt expense, respectively.

The following table summarizes activity in the allowance for credit losses on receivables from DynaEnergetics and NobelClad customers:

	DynaEnergetics	NobelClad	DMC Global Inc.
Allowance for doubtful accounts, December 31, 2019	\$ 945	\$ 22	\$ 967
Adjustment for cumulative effect from change in accounting principle	50	—	50
Current period provision for expected credit losses	3,069	312	3,381
Write-offs charged against the allowance	(1,243)	(186)	(1,429)
Recoveries of amounts previously reserved	(208)	(134)	(342)
Impacts of foreign currency exchange rates and other	(23)	1	(22)
Allowance for doubtful accounts, December 31, 2020	<u>\$ 2,590</u>	<u>\$ 15</u>	<u>\$ 2,605</u>

Inventories

Inventories are stated at the lower of cost (first-in, first-out) or net realizable value. Significant cost elements included in inventory are material, labor, freight, subcontract costs, and manufacturing overhead. As necessary, we write down inventory to its net realizable value by recording provisions for excess, slow moving and obsolete inventory. We regularly review inventory quantities on hand and values, and compare them to estimates of future product demand, market conditions, production requirements and technological developments.

Inventories consisted of the following at December 31, 2020:

	DynaEnergetics	NobelClad	DMC Global Inc.
Raw materials	\$ 13,250	\$ 11,903	\$ 25,153
Work-in-process	7,062	6,682	13,744
Finished goods	12,806	669	13,475
Supplies	—	201	201
	<u>\$ 33,118</u>	<u>\$ 19,455</u>	<u>\$ 52,573</u>

Inventories consisted of the following at December 31, 2019:

	DynaEnergetics	NobelClad	DMC Global Inc.
Raw materials	18,049	8,124	\$ 26,173
Work-in-process	6,443	5,751	12,194
Finished goods	15,041	4	15,045
Supplies	—	316	316
	<u>\$ 39,533</u>	<u>\$ 14,195</u>	<u>\$ 53,728</u>

Shipping and handling costs incurred by us upon shipment from our manufacturing facilities directly to customers are included in "Cost of products sold" while shipping and handling costs incurred by us upon shipment from our distribution centers to customers are included in "Selling and distribution expenses" in the accompanying Consolidated Statements of Operations.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost, except for assets acquired in acquisitions which are recorded at fair value. Additions and improvements are capitalized. Maintenance and repairs are charged to operations as costs are incurred. Depreciation is computed using the straight-line method over the estimated useful life of the related asset (except leasehold improvements which are depreciated over the shorter of their estimated useful life or the lease term) as follows:

Buildings and improvements	15-40 years
Manufacturing equipment and tooling	3-15 years
Furniture, fixtures, and computer equipment	3-10 years
Other	3-10 years

Gross property, plant and equipment consisted of the following at December 31:

	2020	2019
Land	\$ 3,634	\$ 3,551
Buildings and improvements	59,556	58,069
Manufacturing equipment and tooling	72,992	72,081
Furniture, fixtures and computer equipment	22,194	21,683
Other	7,261	6,041
Construction in process	14,641	13,316
	<u>\$ 180,278</u>	<u>\$ 174,741</u>

Asset Impairments

Finite-lived assets are tested for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. We compare the expected undiscounted future operating cash flows associated with these finite-lived assets to their respective carrying values to determine if they are fully recoverable when indicators of impairment are present. If the expected future operating cash flows of an asset group are not sufficient to recover the related carrying value, we estimate the fair value of the asset group. Impairment is recognized when the carrying amount of the asset group is not recoverable and when carrying value exceeds fair value. Long-lived assets to be disposed of, if any, are reported at the lower of carrying amount or fair value less cost to sell.

For the year ended December 31, 2020, we recognized an impairment charge of \$ 1,361 (recorded in "Restructuring expenses, net and asset impairments"). The COVID-19 pandemic-related collapse in oil and gas demand led to a downturn in well completions and the corresponding demand for DynaEnergetics' products. As a result, DynaEnergetics recorded asset impairment charges of \$1,181 on certain manufacturing assets that will no longer be utilized in production at its Blum, Texas and Troisdorf, Germany facilities. The fair value of the assets upon which an impairment charge was recorded was primarily based upon the Company's estimates as we negotiated disposal of the assets. For the year ended December 31, 2019, we recognized an impairment charge of \$6,231 (recorded in "Restructuring expenses, net and asset impairments") related to production assets in DynaEnergetics' operations in Tyumen, Siberia, which were closed in 2019. The fair value of applicable Russian assets upon which an impairment charge was recorded was primarily based upon the Company's estimates as we negotiated disposal of the assets. For the year ended December 31, 2018, no impairments were recorded. Refer to Note 10 "Restructuring and Asset Impairments" for additional discussion.

Purchased Intangible Assets

Our purchased intangible assets include finite-lived core technology, customer relationships and trademarks/trade names. Finite-lived intangible assets are amortized over the estimated useful life of the related assets which have a remaining weighted average amortization period of approximately four years in total. The remaining weighted average amortization periods of the intangible assets by asset category are as follows:

Core technology	3.99 years
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Our purchased intangible assets consisted of the following as of December 31, 2020:

	Gross	Accumulated Amortization	Net
Core technology	\$ 17,899	\$ (14,234)	\$ 3,665
Customer relationships	37,638	(37,638)	—
Trademarks / Trade names	2,194	(2,194)	—
Total intangible assets	<u>\$ 57,731</u>	<u>\$ (54,066)</u>	<u>\$ 3,665</u>

Our purchased intangible assets consisted of the following as of December 31, 2019:

	Gross	Accumulated Amortization	Net
Core technology	\$ 17,717	\$ (11,837)	\$ 5,880
Customer relationships	35,091	(35,091)	—
Trademarks / Trade names	1,988	(1,988)	—
Total intangible assets	<u>\$ 54,796</u>	<u>\$ (48,916)</u>	<u>\$ 5,880</u>

The change in the gross value of our purchased intangible assets at December 31, 2020 from December 31, 2019 was due to foreign currency translation and an adjustment due to recognition of tax benefit of tax amortization previously applied to certain goodwill related to the DynaEnergetics and NobelClad reporting units. After the goodwill associated with each reporting unit was impaired at December 31, 2015 and September 30, 2017, respectively, the tax amortization reduces other intangible assets related to the historical acquisition.

Expected future amortization of intangible assets is as follows:

For the years ended December 31 -	
2021	\$ 1,056
2022	875
2023	875
2024	859
	<u>\$ 3,665</u>

Leases

The Company leases real properties for use in manufacturing and as administrative and sales offices, and leases automobiles and office equipment. Until the end of 2018, our leases of property, plant and equipment were classified as operating leases, and payments made under operating leases were charged to the Consolidated Statement of Operations on a straight-line basis. Upon adoption of the new lease standard on January 1, 2019, the Company recognized right of use ("ROU") assets and lease liabilities in relation to the leases which had previously been classified as operating leases.

The Company determines if a contract contains a lease arrangement at the inception of the contract. For leases in which the Company is the lessee, leases are classified as either finance or operating. ROU assets are initially measured at the present value of lease payments over the lease term plus initial direct costs, if any, with the classification affecting the pattern of expense recognition. ROU assets are amortized on a straight line basis to the Consolidated Statement of Operations. If a lease does not provide a discount rate and the rate cannot be readily determined, an incremental borrowing rate is used to determine the future lease payments. Lease and non-lease components within the Company's lease agreements are accounted for together. The Company has no leases in which the Company is the lessor.

Nearly all of the Company's leasing arrangements are classified as operating leases. ROU asset and lease liability balances were as follows for the periods presented:

	December 31, 2020	December 31, 2019
ROU asset	\$ 10,733	\$ 10,423
Current lease liability	1,741	1,716
Long-term lease liability	10,066	9,777
Total lease liability	<u>\$ 11,807</u>	<u>\$ 11,493</u>

The ROU asset is reported in "Other assets" while the current lease liability is reported in "Other current liabilities" and the long-term lease liability is reported in "Other long-term liabilities" on the Company's Consolidated Balance Sheets. The Company's financing leases were not material as of December 31, 2020. Cash paid for operating lease liabilities are recorded as

cash flows from operating activities in the Company's Consolidated Statements of Cash Flows. Total operating lease expense included in in the Company's Consolidated Statements of Income was \$3,950, \$4,012 and \$2,840 for the years ended December 31, 2020, 2019, and 2018, respectively. Short term and variable lease costs were not material for the year ended December 31, 2020.

Certain of the Company's leases contain renewal options and options to extend the leases for up to five years, and a majority of these options are reflected in the calculation of the ROU assets and lease liability due to the likelihood of renewal

The following table summarizes the weighted average lease terms and discount rates for operating lease liabilities:

	December 31, 2020	December 31, 2019
Weighted average remaining lease term	8.3 years	9.0 years
Weighted average discount rate	5.2 %	5.2 %

The following table represents maturities of operating lease liabilities as of December 31, 2020:

Due within 1 year	\$	1,741
Due after 1 year through 2 years		1,959
Due after 2 years through 3 years		1,846
Due after 3 years through 4 years		1,691
Due after 4 years through 5 years		1,660
Thereafter		5,747
Total future minimum lease payments		14,644
Less imputed interest		(2,837)
Total	\$	11,807

Contract Liabilities

On occasion, we require customers to make advance payments prior to the shipment of their orders in order to help finance our inventory investment on large orders or to keep customers' credit limits at acceptable levels. Contract liabilities were as follows at December 31:

	2020	2019
NobelClad	\$ 4,450	\$ 1,427
DynaEnergetics	478	1,309
Total	\$ 4,928	\$ 2,736

We generally expect to recognize the revenue associated with contract liabilities over a time period no longer than one year, but unforeseen circumstances can cause delays in shipments associated with contract liabilities. Approximately 73% of the \$2,736 recorded as contract liabilities at December 31, 2019, was recorded to net sales during the year ended December 31, 2020.

Revenue Recognition

On January 1, 2018, the Company adopted a new accounting standard, as amended, regarding revenue from contracts with customers using the modified retrospective approach, which was applied to all contracts with customers. Under the new standard, an entity is required to recognize revenue to depict the transfer of promised goods to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods.

There was no cumulative financial statement effect of initially applying the new revenue standard because an analysis of our contracts supported the recognition of revenue consistent with our historical approach. In accordance with the modified retrospective approach, the comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The Company's revenues are primarily derived from consideration paid by customers for tangible goods. The Company analyzes its different products by segment to determine the appropriate basis for revenue recognition, as described below.

Revenue is not generated from sources other than contracts with customers and revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities. There are no material upfront costs for operations that are incurred from contracts with customers.

Our rights to payments for goods transferred to customers arise when control is transferred at a point in time and not on any other criteria. Payment terms and conditions vary by contract, although terms generally include a requirement of payment within 30 to 60 days. In instances when we require customers to make advance payments prior to the shipment of their orders, we record a contract liability. We have determined that our contract liabilities do not include a significant financing component given the short duration between order initiation and order fulfillment within each of our segments. Refer to Note 7 "Business Segments" for disaggregated revenue disclosures.

NobelClad

Customers agree to terms and conditions at the time of initiating an order. The significant majority of transactions contain a single performance obligation - the delivery of a clad metal product. In instances where multiple products are included within an order, each product represents a separate performance obligation given that: (1) the customer can benefit from each product on a standalone basis and (2) each product is distinct within the context of the contract.

The transaction price is readily determinable and fixed at the time the transaction is entered into with the customer. NobelClad is entitled to each product's transaction price upon the customer obtaining control of the item. Such control occurs as of a point in time, which is generally based upon relevant International Commercial Terms ("Incoterms") as it relates to product ownership and legal title being transferred. Upon fulfillment of applicable Incoterms, NobelClad has performed its contractual requirements such that it has a present right to payment, and the customer from that point forward bears all risks and rewards of ownership. In addition, at this date, the customer has the ability to direct the use of, or restrict access to, the asset. No payment discounts, rebates, refunds, or any other forms of variable consideration are included within NobelClad contracts. NobelClad also does not provide service-type warranties either via written agreement or customary business practice, nor does it allow customer returns.

For contracts that contain only one performance obligation, the total transaction price is allocated to the sole performance obligation. For contracts which contain multiple distinct performance obligations, judgment is required to determine the standalone selling price ("SSP") for each performance obligation. NobelClad uses the expected cost plus margin approach in order to estimate SSP, whereby an entity forecasts its expected costs of satisfying a performance obligation and then adds an appropriate margin for that good. The required judgment described herein largely is mitigated given the short duration between order initiation and complete order fulfillment.

DynaEnergetics

Customers agree to terms and conditions at the time of initiating an order. Transactions contain standard products, which may include perforating system components, such as detonating cord, or systems and associated hardware, including Factory-Assembled, Performance-Assured™ DynaStage® perforating systems. In instances where multiple products are included within an order, each product represents a separate performance obligation given that: (1) the customer can benefit from each product on a standalone basis and (2) each product is distinct within the context of the contract.

The transaction price is readily determinable and fixed at the time the transaction is entered into with the customer. DynaEnergetics is entitled to each product's transaction price upon the customer obtaining control of the item. Such control occurs as of a point in time, which is generally based upon relevant Incoterms as it relates to product ownership and legal title being transferred. Upon fulfillment of applicable Incoterms, DynaEnergetics has performed its contractual requirements such that it has a present right to payment, and the customer from that point forward bears all risks and rewards of ownership. In addition, at this date, the customer has the ability to direct the use of, or restrict access to, the asset. No payment discounts, rebates, refunds, or any other forms of variable consideration are included within contracts. DynaEnergetics also does not provide service-type warranties either via written agreement or customary business practice, nor does it allow customer returns without its prior approval.

For orders that contain only one performance obligation, the total transaction price is allocated to the sole performance obligation. For orders that contain multiple products being purchased by the customer, judgment is required to determine SSP for each distinct performance obligation. However, such judgment largely is mitigated given that products purchased are generally shipped at the same time. In instances where products purchased are not shipped at the same time, DynaEnergetics uses the contractually stated price to determine SSP as this price approximates the price of each good as sold separately.

Research and Development

Research and development costs include expenses associated with developing new products and processes as well as improvements to current manufacturing processes. Research and development costs are included in our cost of products sold and were as follows for the years ended December 31:

	2020	2019	2018
DynaEnergetics research and development costs	\$ 6,335	\$ 7,057	\$ 5,932
NobelClad research and development costs	1,575	1,393	1,278
Total research and development costs	<u>\$ 7,910</u>	<u>\$ 8,450</u>	<u>\$ 7,210</u>

Earnings Per Share

In periods with net income, the Company computes earnings per share ("EPS") using a two-class method, which is an earnings allocation formula that determines EPS for (i) each class of common stock (the Company has a single class of common stock), and (ii) participating securities according to dividends declared and participation rights in undistributed earnings. Restricted stock awards are considered participating securities as they receive non-forfeitable rights to dividends as common stock. Because we are in a net loss position for the year ended December 31, 2020, all potentially dilutive shares are anti-dilutive and are excluded from the determination of diluted EPS.

Basic EPS is then calculated by dividing net income available to common shareholders of the Company by the weighted-average number of common shares outstanding during the period. Diluted EPS adjusts basic EPS for the effects of restricted stock awards, restricted stock units, performance share units and other potentially dilutive financial instruments (dilutive securities), only in the periods in which such effect is dilutive. The effect of the dilutive securities is reflected in diluted EPS by application of the more dilutive of (1) the treasury stock method or (2) the two-class method assuming nonvested shares are not converted into common shares. For the periods presented, diluted EPS using the treasury stock method was less dilutive than the two-class method; as such, only the two-class method has been included below.

EPS was calculated as follows for the years ended December 31:

	2020	2019	2018
Net (loss) income, as reported	\$ (1,412)	\$ 34,041	\$ 30,473
Less: Distributed net income available to participating securities	—	(85)	(27)
Less: Undistributed net income available to participating securities	—	(582)	(666)
Numerator for basic net (loss) income per share:	(1,412)	33,374	29,780
Add: Undistributed net income allocated to participating securities	—	582	666
Less: Undistributed net income reallocated to participating securities	—	(579)	(662)
Numerator for diluted net (loss) income per share:	(1,412)	33,377	29,784
Denominator:			
Weighted average shares outstanding for basic net (loss) income per share	14,790,296	14,579,608	14,529,745
Effect of dilutive securities	—	75,742	90,890
Weighted average shares outstanding for diluted net (loss) income per share	14,790,296	14,655,350	14,620,635
Net (loss) income per share			
Basic	\$ (0.10)	\$ 2.29	\$ 2.05
Diluted	\$ (0.10)	\$ 2.28	\$ 2.04

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. We are required to use an established hierarchy for fair value measurements based upon the inputs to the valuation and the degree to which they are observable or not observable in the market. The three levels in the hierarchy are as follows:

- Level 1 — Inputs to the valuation based upon quoted prices (unadjusted) for identical assets or liabilities in active markets that are accessible as of the measurement date.
- Level 2 — Inputs to the valuation include quoted prices in either markets that are not active, or in active markets for similar assets or liabilities, inputs other than quoted prices that are observable, and inputs that are derived principally from or corroborated by observable market data.
- Level 3 — Inputs to the valuation that are unobservable inputs for the asset or liability.

The highest priority is assigned to Level 1 inputs and the lowest priority to Level 3 inputs.

The carrying value of accounts receivable and payable, accrued expenses, revolving loans under our credit facility and borrowings under our capital expenditure facility approximate their fair value. Our U.S. Treasury marketable securities are valued using quoted prices in active markets that are accessible as of the measurement date. Our revolving loans and borrowings under our capital expenditure facility reset each month at market interest rates. All of these items are considered Level 1 assets and liabilities.

Our foreign currency forward contracts are valued using quoted market prices or are determined using a yield curve model based on current market rates. As a result, we classify these investments as Level 2 in the fair value hierarchy. Money market funds and mutual funds of \$4,244 as of December 31, 2020 and \$2,420 as of December 31, 2019 held to satisfy future deferred compensation obligations are valued based upon the market values of underlying securities, and therefore we classify these assets as Level 2 in the fair value hierarchy.

We did not hold any Level 3 assets or liabilities as of December 31, 2020 or December 31, 2019.

Income Taxes

We recognize deferred tax assets and liabilities for the expected future income tax consequences of temporary differences between the financial reporting and tax bases of assets and liabilities. Any effects of changes in income tax rates or tax laws are included in the provision for income taxes in the period of enactment. The deferred income tax impact of tax credits are recognized as an immediate adjustment to income tax expense. We recognize deferred tax assets for the expected future effects of all deductible temporary differences to the extent we believe these assets will more likely than not be realized. We record a valuation allowance when, based on current circumstances, it is more likely than not that all or a portion of the deferred tax assets will not be realized. In making such determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, recent financial operations and their associated valuation allowances, if any.

We recognize the tax benefits from uncertain tax positions only when it is more likely than not, based on the technical merits of the position, that the tax position will be sustained upon examination, including the resolution of any related appeals or litigation. The tax benefits recognized in the Consolidated Financial Statements from such a position are measured as the largest benefit that is more likely than not to be realized upon ultimate resolution. We recognize interest and penalties related to uncertain tax positions in operating expense.

See Note 6 "Income Taxes" for further information on our income taxes.

Concentration of Credit Risk and Off Balance Sheet Arrangements

Financial instruments, which potentially subject us to a concentration of credit risk, consist primarily of cash, cash equivalents, marketable securities, and accounts receivable. Generally, we do not require collateral to secure receivables. At December 31, 2020, we had no financial instruments with off-balance sheet risk of accounting losses.

Other Cumulative Comprehensive Loss

Other cumulative comprehensive loss as of December 31, 2020, 2019, and 2018 consisted entirely of currency translation adjustments including those in intra-entity foreign currency transactions that are classified as long-term investments. During 2019, the Company substantially liquidated the assets and liabilities of DynaEnergetics Siberia, as defined by U.S. GAAP, and as a result the cumulative foreign currency translation losses were reclassified to "Restructuring expenses, net and asset impairments" in the Consolidated Statement of Operations from "Other cumulative comprehensive loss" in the Consolidated Balance Sheets. Refer to Note 10 "Restructuring and Asset Impairments" for additional discussion.

Recent Accounting Pronouncements

In December 2019, the FASB issued a new accounting pronouncement regarding accounting for income taxes. The new standard removes certain exceptions to the general principles in ASC 740 *Income Taxes* and also clarifies and amends existing guidance to provide for more consistent application. The new standard will become effective for the Company in the first quarter of fiscal 2021 and early adoption is permitted. We are evaluating the impact that the adoption of this update will have on our consolidated financial statements.

In March 2020, the FASB issued a new accounting pronouncement regarding the market transition from existing reference rates, such as London Inter-bank Offered Rate ("LIBOR") which is being phased out beginning at the end of 2021, to alternate reference rates, such as Secured Overnight Financing Rate ("SOFR"). The guidance allows for companies to: (1) account for certain contract modifications as a continuation of the existing contract without additional analysis; (2) continue hedge accounting when certain critical terms of a hedging relationship change and assess effectiveness in ways that disregard certain potential sources of ineffectiveness; and (3) make a one-time sale and/or transfer of certain debt securities from held-to-maturity to available-for-sale or trading. This ASU is available for adoption effective immediately, or as of January 1, 2020 or any date thereafter for the Company, and applies prospectively to contract modifications and hedging relationships. The one-time election to sell and/or transfer debt securities classified as held-to-maturity may be made at any time after March 12, 2020. The Company anticipates adopting this standard and will continue to analyze its provisions. The adoption of this new requirement is not expected to have a material impact on the consolidated earnings, financial position or cash flows of the Company.

3. DEBT

Outstanding borrowings consisted of the following at December 31:

	2020	2019
Syndicated credit agreement:		
Capital expenditure facility	\$ 11,750	\$ 14,875
Outstanding borrowings	11,750	14,875
Less: debt issuance costs	(486)	(603)
Total debt	11,264	14,272
Less: current portion of long-term debt	(3,125)	(3,125)
Long-term debt	\$ 8,139	\$ 11,147

Syndicated Credit Agreement

On March 8, 2018, we entered into a five-year \$75,000 syndicated credit agreement ("credit facility") which allows for revolving loans of up to \$ 50,000 with a \$20,000 US dollar equivalent sublimit for alternative currency loans. In addition, the new agreement included a \$ 25,000 Capital Expenditure Facility ("Capex Facility") which was used to assist in financing our DynaEnergetics manufacturing expansion project in Blum, Texas. In March 2019, the Capex Facility converted from a revolving loan to a term loan which is amortizable at 12.5% of principal per year with a balloon payment for the outstanding balance upon the credit facility maturity date in 2023. In 2019, we prepaid an additional \$7,000 above the required amortization amount. The credit facility has an accordion feature to increase the commitments by \$100,000 under the revolving loan class and/or by adding a term loan subject to approval by applicable lenders. We entered into the credit facility with a syndicate of three banks, with KeyBank, N.A. acting as administrative agent. The syndicated credit facility is secured by the assets of DMC including accounts receivable, inventory, and fixed assets, as well as guarantees and share pledges by DMC and its subsidiaries.

Borrowings under the \$50,000 revolving loan limit can be in the form of one, two, three, or six month London Interbank Offered Rate ("LIBOR") loans. Additionally, US dollar borrowings on the revolving loan can be in the form of Base Rate loans (Base Rate borrowings are based on the greater of the administrative agent's Prime rate, an adjusted Federal Funds rate or an adjusted LIBOR rate). LIBOR loans bear interest at the applicable LIBOR rate plus an applicable margin (varying from 1.50% to 3.00%). Base Rate loans bear interest at the defined Base rate plus an applicable margin (varying from 0.50% to 2.00%). All revolving loan borrowings and repayments have been in the form of one- or two-month loans and are reported on a net basis in our Consolidated Statements of Cash Flows.

Borrowings under the \$20,000 alternate currency sublimit can be in euros, Canadian dollars, pounds sterling, and in any other currency acceptable to the administrative agent. Alternative currency borrowings denominated in euros, pounds sterling, and any other currency that is dealt with on the London Interbank Deposit Market shall be comprised of LIBOR loans and bear interest at the LIBOR rate plus an applicable margin (varying from 1.50% to 3.00%). We have not made any borrowings under the alternative currency sublimit.

On June 25, 2020, we entered into an amendment ("Amendment") to the credit facility related to the debt-to-EBITDA leverage ratio covenant and a debt service coverage ratio covenant, among other things. The Amendment waives the debt service coverage ratio covenant for the quarters ending September 30, 2020, December 31, 2020, and March 31, 2021. The debt service coverage ratio minimum of 1.35 to 1 was applicable for the quarter ending June 30, 2020 and will resume beginning with the quarter ending June 30, 2021 and thereafter. The debt service coverage ratio is defined in the credit facility as the ratio of Consolidated Pro Forma EBITDA less the sum of capital distributions paid in cash, cash income taxes and Consolidated Unfunded Capital Expenditures (as defined in the credit facility) to Debt Service Charges (as defined in the credit facility).

Additionally, the Amendment added a minimum liquidity covenant requiring the total of cash and cash equivalents held by U.S. subsidiaries and available borrowing capacity under the credit facility to exceed \$10,000 for the quarters ending September 30, 2020, December 31, 2020, and March 31, 2021. The minimum liquidity covenant is not required after the quarter ending March 31, 2021.

During the period from the Amendment through August 31, 2020, borrowings outstanding under the credit facility bore interest at LIBOR plus a margin of 1.75% or at a Base Rate (as defined in the credit facility) plus a margin of 0.75%. For the period from September 1, 2020 through the date of receipt of the covenant compliance certificate for the quarter ending March 31, 2021, borrowings outstanding under the credit facility will bear interest at LIBOR plus a margin of 1.75% to 3.00% or at a Base Rate plus a margin of 0.75% to 2.00%. In each case, the margin is based on the Company's Leverage Ratio of Consolidated Funded Indebtedness (as defined in the credit facility) on the last day of such period to Consolidated Pro Forma EBITDA for such period. Additionally, the Amendment set the minimum LIBOR at 0.75%.

On October 22, 2020, in connection with the commencement of our at-the-market offering, we entered into an amendment to the credit facility to waive the requirement that we repay outstanding balances under the credit facility from the proceeds of any equity offering. The waiver applies to at-the-market offerings up to \$75 million.

The credit facility includes various covenants and restrictions, certain of which relate to the payment of dividends or other distributions to stockholders; redemption of capital stock; incurrence of additional indebtedness; mortgaging, pledging or disposition of major assets; and maintenance of specified ratios. As of December 31, 2020, we were in compliance with all financial covenants and other provisions of our debt agreements.

Line of Credit with German Bank

We maintain a line of credit with a German bank for our NobelClad and DynaEnergetics operations in Europe. In July 2020, the German Bank Facility was amended to increase the borrowing capacity from €4,000 to €7,000. This line of credit is also used to issue bank guarantees to customers to secure advance payments made by them. As of December 31, 2020, we had no outstanding borrowings under this line of credit and bank guarantees of € 3,676 secured by the line of credit. The line of credit bears interest at a EURIBOR-based variable rate which at December 31, 2020 was 4.50%. The line of credit has open-ended terms and can be canceled by the bank at any time.

Debt Issuance Costs

Included in long-term debt are deferred debt issuance costs of \$486 and \$603 as of December 31, 2020 and 2019, respectively. Deferred debt issuance costs are being amortized over the remaining term of the credit facility, which expires on March 8, 2023.

4. EQUITY PROGRAM

On October 22, 2020, the Company commenced an at-the-market ("ATM") equity program under its shelf registration statement, which allows it to sell and issue up to \$75 million in shares of its common stock from time to time. The Company entered into an Equity Distribution Agreement on October 22, 2020 with KeyBanc Capital Markets Inc. ("KeyBanc") relating to the issuance and sale of shares of common stock pursuant to the program. KeyBanc is not required to sell any specific amount of securities but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between KeyBanc and us. There is no specific date on which the ATM equity program will end and there are no minimum purchase requirements. KeyBanc will be entitled to compensation for shares sold pursuant to the program in an amount up to 1.5% of the gross proceeds of any shares of common stock sold under the Equity Distribution Agreement.

During the year ended December 31, 2020, the Company sold 608,360 shares of common stock through its ATM equity program for gross proceeds of \$26,132 at a weighted average price per share of \$ 42.95. Net proceeds from such sales were \$ 25,740, after deducting commissions paid to the sales agents of approximately \$392.

5. STOCK OWNERSHIP AND BENEFIT PLANS

Our stock-based compensation expense results from restricted stock awards ("RSAs"), restricted stock units ("RSUs"), performance share units ("PSUs"), and stock issued under the Employee Stock Purchase Plan. The following table sets forth the total stock-based compensation expense included in the Consolidated Statements of Operations for the years ended December 31:

	2020	2019	2018
Cost of products sold	\$ 652	\$ 620	\$ 342
General and administrative expenses	4,408	4,052	2,862
Selling and distribution expenses	615	532	376
Stock-based compensation expense, net of income taxes	5,675	5,204	3,580
Earnings per share impact			
Basic	\$ 0.38	\$ 0.36	\$ 0.25
Diluted	\$ 0.38	\$ 0.36	\$ 0.24

On November 4, 2016, our stockholders approved the 2016 Omnibus Incentive Plan ("2016 Plan"). The 2016 Plan provides for the granting of various types of equity-based incentives, including stock options, RSAs, RSUs, stock appreciation rights, performance shares, performance units, other stock-based awards, and cash-based awards. Our stockholders approved a total of 5,000,000 shares available for grant under the 2016 Plan, less 1,639,881 of RSAs and RSUs previously granted under the 2006 Stock Incentive Plan ("2006 Plan") as of the 2006 Plan's expiration of September 21, 2016. As of the inception of the 2016 plan on September 21, 2016, 3,360,119 shares were available for grant under the 2016 Plan. As of December 31, 2020, we have granted RSAs, RSUs, and PSUs representing an aggregate of 825,099 shares of stock under the 2016 Plan, and 2,535,020 shares are available for future grant.

RSAs and RSUs are granted to employees and non-employee directors based on time-vesting. For RSAs or RSUs granted to employees, vesting typically occurs in one-third increments on the first, second, and third anniversary of the grant date. For RSAs or RSUs granted to non-employee directors, vesting occurs on the first anniversary of the grant date. Each RSA represents a restricted share of common stock that has voting and dividend rights and becomes fully unrestricted upon vesting. Each RSU represents the right to receive one share of stock upon vesting.

The fair value of RSAs and RSUs granted to employees and non-employee directors is based on the fair value of DMC's stock on the grant date. RSAs and RSUs granted to employees and non-employee directors are amortized to compensation expense over the vesting period on a straight-line basis. Our policy is to recognize forfeitures of RSAs and RSUs as they occur.

PSUs are granted to employees with vesting based on performance and market conditions. Each PSU represents the right to receive stock upon the achievement of certain conditions. A target number of PSUs is awarded on the grant date, and the recipient is eligible to earn shares of common stock between 0% and 200% of the number of targeted PSUs awarded. A portion of an employee's grant is based on actual performance against a targeted Adjusted EBITDA goal while the remainder is based on relative total shareholder return ("TSR") performance compared to our peer group disclosed in our Proxy Statement. For awards granted in 2020, 25% of the grant is based on the achievement of targeted Adjusted EBITDA and 75% of the grant is based on the achievement of relative TSR performance. For PSUs granted prior to 2020, 50% of the grant is based on the achievement of targeted Adjusted EBITDA and 50% of the grant is based on the achievement of relative TSR performance. The PSUs earned, if any, cliff vest at the end of the third year following the year of grant based on the degree of satisfaction of the PSUs performance and market conditions.

The fair value of PSUs with target Adjusted EBITDA performance conditions is based on the fair value of DMC's stock on the grant date, and the value is amortized to compensation expense over the vesting period based on the estimated probable satisfaction of the performance condition. The fair value of PSUs with TSR performance conditions is based on a third-party valuation simulating a range of possible TSR outcomes over the performance period, and the resulting fair value is amortized to compensation expense over the vesting period based on a straight-line basis. Our policy is to recognize forfeitures of PSUs as they occur.

A summary of the activity of our nonvested shares of RSAs issued is as follows:

	2016 Plan		2006 Plan (1)	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2018	289,931	\$ 18.81	63,035	\$ 22.91
Granted	75,531	48.74	—	—
Vested	(71,317)	24.67	(62,537)	8.65
Forfeited	(2,665)	18.65	(498)	6.22
Balance at December 31, 2019	291,480	\$ 25.12	—	\$ —
Granted	100,882	34.07	—	—
Vested	(135,709)	26.20	—	—
Forfeited	(7,088)	37.08	—	—
Balance at December 31, 2020	249,565	\$ 27.81	—	\$ —

(1) There was no activity related to the 2006 plan during the year ended December 31, 2020.

A summary of the activity of our nonvested RSUs issued under the 2016 Plan is as follows:

	2016 Plan		2006 Plan (1)	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2018	95,325	\$ 17.99	26,329	\$ 16.69
Granted	25,576	45.97	—	—
Vested	(28,843)	18.16	(26,329)	6.96
Forfeited	(4,999)	19.67	—	—
Balance at December 31, 2019	87,059	\$ 26.05	—	\$ —
Granted	27,730	35.29	—	—
Vested	(39,009)	23.53	—	—
Forfeited	(4,340)	15.65	—	—
Balance at December 31, 2020	71,440	\$ 31.65	—	\$ —

(1) There was no activity related to the 2006 plan during the year ended December 31, 2020.

A summary of the activity of our nonvested PSUs issued under the 2016 Plan is as follows:

	Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2018	46,000	\$ 22.32
Granted	17,640	60.75
Balance at December 31, 2019	63,640	\$ 32.97
Granted	45,948	49.93
Vested	(46,000)	18.18
Forfeited	(7,478)	43.17
Balance at December 31, 2020	56,110	\$ 57.63

As of December 31, 2020, total unrecognized stock-based compensation related to unvested awards was as follows:

	Unrecognized stock compensation	Weighted-average recognition period
Unvested RSAs	\$ 3,805	1.3 years
Unvested RSUs	\$ 1,246	1.4 years
Unvested PSUs	\$ 1,545	1.5 years

Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan ("ESPP") pursuant to which we are authorized to issue up to 850,000 shares of DMC common stock, of which 206,350 shares remain available for future purchase as of December 31, 2020. The offerings begin on the first day following each previous offering ("Offering Date") and end six months from the Offering Date ("Purchase Date"). The ESPP provides that full time employees may authorize DMC to withhold up to 15% of their earnings, subject to certain limitations, to be used to purchase stock at the lesser of 85% of the fair market value of the stock on the Offering Date or the Purchase Date. In connection with the ESPP, 18,462, 16,553, and 18,100 shares of our stock were purchased during the years ended December 31, 2020, 2019, and 2018, respectively. Our total stock-based compensation expense for 2020, 2019, and 2018 includes \$133, \$159, and \$121, respectively, in compensation expense associated with the ESPP.

401(k) Plan

We offer a contributory 401(k) plan to our employees. We make matching contributions equal to 100% of each employee's contribution up to 3% of qualified compensation and 50% of the next 2% of qualified compensation contributed by each employee. Total DMC contributions were \$1,069, \$1,156, and \$828 for the years ended December 31, 2020, 2019 and 2018, respectively.

Deferred Compensation Plan

The Company maintains a Non-Qualified Deferred Compensation Plan (the "Plan") as part of its overall compensation package for certain employees. Participants are eligible to defer a portion of their annual salary, their annual incentive bonus, and their equity awards through the Plan on a tax-deferred basis. Deferrals into the Plan are not matched or subsidized by the Company, nor are they eligible for above-market or preferential earnings.

The Plan provides for deferred compensation obligations to be settled either by delivery of a fixed number of shares of DMC's common stock or in cash, in accordance with participant contributions and elections. For deferred equity awards, subsequent to equity award vesting and after a period prescribed by the Plan, participants can elect to diversify contributions of equity awards into other investment options available to Plan participants. Once diversified, contributions of equity awards will be settled by delivery of cash.

The Company has established a grantor trust commonly known as a “rabbi trust” and contributed certain assets to satisfy the future obligations to participants in the Plan. These assets are subject to potential claims of the Company’s general creditors. The assets held in the trust include unvested RSAs, vested company stock awards, company-owned life insurance (“COLI”) on certain employees, and money market and mutual funds. Unvested RSAs and common stock held by the trust are reflected in the Consolidated Balance Sheets within “Treasury stock, at cost, and company stock held for deferred compensation, at par” at the par value of the common stock or unvested RSAs. These accounts are not adjusted for subsequent changes in the fair value of the common stock. COLI is accounted for at the cash surrender value while money market and mutual funds held by the trust are accounted for at fair value.

Deferred compensation obligations that will be settled in cash are accounted for on an accrual basis in accordance with the terms of the Plan. These obligations are adjusted based on changes in value of the underlying investment options chosen by Plan participants. Deferred compensation obligations that will be settled by delivery of a fixed number of previously vested shares of the Company’s common stock are reflected in the Consolidated Statements of Stockholders’ Equity within “Common stock” at the par value of the common stock or unvested RSAs. These accounts are not adjusted for subsequent changes in the fair value of the common stock.

The balances related to the deferred compensation plan are as follows for the years ended December 31:

	Consolidated Balance Sheet location	2020	2019
Deferred compensation assets	Other assets	\$ 7,596	\$ 4,461
Deferred compensation obligations	Other long-term liabilities	\$ 11,894	\$ 6,090

Foreign Subsidiary Defined Benefit and Defined Contribution Plans

We have defined benefit pension plans at certain foreign subsidiaries for which we have recorded an unfunded pension obligation of \$ 2,404 and \$2,079 as of December 31, 2020 and 2019, respectively, which is included in other long-term liabilities in the Consolidated Balance Sheets. All necessary adjustments to the obligation are based upon actuarial calculations and the service cost component is recorded within “General and administrative expenses” while all other costs are included within “Other expense, net” in the Consolidated Statements of Operations. We recognized expense of \$122, \$406 and \$ 10 for the years ended December 31, 2020, 2019 and 2018, respectively.

During the fourth quarter of 2020, a new defined contribution pension plan went into effect for employees at the foreign subsidiaries, which replaced the defined benefit plan. Under the new plan, pension benefits will be financed both through contributions by the Company and employees. The Company contributes between 1.5% and 4.5% of the employee’s salary annually. During the year ended December 31, 2020, the Company contributed \$ 323 to the defined contribution plan. Past contributions into the defined benefit plan were unchanged by the new defined contribution plan, and participants will continue to accrue pension benefits on those contributions.

6. INCOME TAXES

The domestic and foreign components of income (loss) before taxes for our operations consist of the following for the years ended December 31:

	2020	2019	2018
Domestic	\$ (7,103)	\$ 33,837	\$ 9,399
Foreign	5,143	22,865	25,208
Total (loss) income before income taxes	\$ (1,960)	\$ 56,702	\$ 34,607

The components of the (benefit) provision for income taxes consist of the following for the years ended December 31:

	2020	2019	2018
Current – Federal	\$ 162	\$ 4,543	\$ 444
Current – State	196	557	371
Current – Foreign	1,407	13,272	6,972
Current income tax expense	1,765	18,372	7,787
Deferred – Federal	(1,997)	1,770	98
Deferred – State	156	(290)	—
Deferred — Foreign	(472)	2,809	(3,751)
Deferred income tax (benefit) expense	(2,313)	4,289	(3,653)
Income tax (benefit) provision	\$ (548)	\$ 22,661	\$ 4,134

Our deferred tax assets and liabilities consist of the following at December 31:

	2020	2019
Deferred tax assets:		
Net operating loss carryforward	\$ 8,715	\$ 9,138
Inventory differences	644	721
Equity compensation	1,357	1,203
Investment in subsidiaries	—	2,300
Restructuring	103	7
Purchased goodwill	1,308	1,807
Accrued employee compensation and benefits	3,562	2,945
Lease liabilities	2,792	2,259
Other, net	753	134
Gross deferred tax assets	19,234	20,514
Less valuation allowances	(8,566)	(9,680)
Total deferred tax assets	10,668	10,834
Deferred tax liabilities:		
Purchased intangible assets and goodwill	(373)	(987)
Depreciation and amortization	(4,878)	(7,366)
Right of use assets	(2,550)	(1,997)
Other, net	(539)	(434)
Total deferred tax liabilities	(8,340)	(10,784)
Net deferred tax assets	\$ 2,328	\$ 50

As of December 31, 2020, we had loss carryforwards for tax purposes totaling approximately \$ 49,899, comprised of \$46,344 foreign and \$ 3,555 domestic state loss carryforwards, which will be available to offset future taxable income in certain jurisdictions. Certain losses can be carried forward indefinitely, while the remainder generally have carryforward periods of 5 to 20 years, depending on jurisdiction. We have analyzed the net operating losses and placed valuation allowances on those where we have determined the realization is not more likely than not to occur.

We assess the available positive and negative evidence to estimate if sufficient future taxable income will be generated to use existing deferred tax assets. Additionally, a three-year cumulative loss at a Consolidated Financial Statement level may be viewed as negative evidence impacting a jurisdiction that by itself is not in a three-year cumulative loss position. At December 31, 2018, the Company was no longer in a consolidated three-year cumulative loss position. Accordingly, we evaluated deferred tax assets at the jurisdictional level and released valuation allowances of \$5,818 in jurisdictions where we believe sufficient future taxable income will be generated to use existing deferred tax assets. We continue to record valuation allowances against deferred tax assets where we do not believe sufficient future taxable income will be generated to use existing

deferred tax assets. Accordingly, in 2020 and 2019 we recorded a net decrease of \$ 1,114 and a net increase of \$ 537, respectively, to the valuation allowance comprised of changes principally to legal entity structuring in Germany and the closure of our facility in Tyumen, Siberia. The net decrease in the valuation allowance in 2020 and the net increase in the valuation allowance in 2019 includes increases of \$532 and \$71, respectively, related to currency revaluation. The amount of the deferred tax assets considered realizable, however, could be adjusted in future periods if positive evidence such as current and expected future taxable income outweighs negative evidence.

A reconciliation of our income tax provision computed by applying the Federal statutory income tax rate of 21% to income before taxes is as follows for the years ended December 31:

	2020	2019	2018
Statutory U.S. federal income tax	\$ (412)	\$ 11,907	\$ 7,268
U.S. state income tax, net of federal benefit	(24)	492	430
U.S. TCJA - net impact	—	—	(604)
Foreign rate differential	1,223	4,257	3,054
Tax audit adjustments	—	—	(11)
Equity compensation	(715)	(1,469)	(156)
Deemed repatriation of foreign earnings	—	187	281
German legal entity structuring	1,161	—	—
Non-deductible penalties	—	—	1,686
DynaEnergetics Siberia shut down	324	6,193	—
Other	(460)	561	1,046
Change in valuation allowances	(1,645)	533	(8,860)
Income tax (benefit) provision	\$ (548)	\$ 22,661	\$ 4,134

DMC files income tax returns in the U.S. federal jurisdiction, as well as various U.S. state and foreign jurisdictions. During the fourth quarter of 2019, our German operating entities commenced a tax audit for fiscal years 2015 through 2017. We expect this audit to be completed in the first quarter of 2021. If any issues addressed in the audit are resolved in a manner not consistent with our expectations, the Company could be required to adjust its provision for income taxes in future periods.

DMC's U.S. federal tax returns are open for examination for the tax years 2017 onward. Most of DMC's state tax returns remain open to examination for the tax years 2016 onward. DMC's foreign tax returns generally remain open to examination for the tax years 2016 onward, depending on jurisdiction.

At December 31, 2020 and 2019, the balance of unrecognized tax benefits was zero. We recognize interest and penalties related to uncertain tax positions in operating expense. As of December 31, 2020 and 2019, our accrual for interest and penalties related to uncertain tax positions was zero.

The Tax Cuts and Jobs Act ("TCJA"), enacted in December 2017, provides that foreign earnings generally can be repatriated to the U.S. without federal tax consequence. We have reassessed the assertion that cumulative earnings by our foreign subsidiaries are indefinitely reinvested. We continue to permanently reinvest the earnings of our international subsidiaries and therefore we do not provide for U.S. income taxes or withholding taxes that could result from the distribution of those earnings to the U.S. parent. If any such earnings were ultimately distributed to the U.S. in the form of dividends or otherwise, or if the shares of our international subsidiaries were sold or transferred, we could be subject to additional U.S. federal and state income taxes. Due to the multiple avenues in which earnings can be repatriated, and because a large portion of these earnings are not liquid, it is not practical to estimate the amount of additional taxes that might be payable on these amounts of undistributed foreign income.

7. BUSINESS SEGMENTS

Our business is organized in the following two segments: DynaEnergetics and NobelClad. DynaEnergetics designs, manufactures and distributes products utilized by the global oil and gas industry principally for the perforation of oil and gas wells. NobelClad produces explosion-welded clad metal plates for use in the construction of corrosion resistant industrial processing equipment and specialized transition joints.

The accounting policies of both segments are the same as those described in the summary of significant accounting policies. Our reportable segments are separately managed strategic business units that offer different products and services. Each segment's products are marketed to different customer types and require different manufacturing processes and technologies.

Segment information is as follows as of and for the years ended December 31:

	2020	2019	2018
Net sales:			
DynaEnergetics	\$ 146,395	\$ 310,424	\$ 237,448
NobelClad	82,766	87,126	88,981
Net sales	<u>\$ 229,161</u>	<u>\$ 397,550</u>	<u>\$ 326,429</u>

	2020	2019	2018
(Loss) income before income taxes:			
DynaEnergetics	\$ 6,150	\$ 68,781	\$ 44,476
NobelClad	6,886	7,193	6,499
Segment operating income before income taxes	13,036	75,974	50,975
Unallocated corporate expenses	(8,357)	(12,345)	(9,971)
Stock-based compensation	(5,675)	(5,204)	(3,580)
Other expense, net	(233)	(169)	(1,202)
Interest expense, net	(731)	(1,554)	(1,615)
(Loss) income before income taxes	<u>\$ (1,960)</u>	<u>\$ 56,702</u>	<u>\$ 34,607</u>

	2020	2019	2018
Depreciation and Amortization:			
DynaEnergetics	\$ 7,263	\$ 6,375	\$ 6,308
NobelClad	3,504	3,046	3,212
Segment depreciation and amortization	10,767	9,421	9,520
Corporate and other (1)	314	439	—
Consolidated depreciation and amortization	<u>11,081</u>	<u>9,860</u>	<u>\$ 9,520</u>

(1) Prior to 2019, the Company fully allocated corporate and other depreciation to the segments.

	2020	2019	2018
Acquisition of property, plant and equipment			
DynaEnergetics	\$ 11,741	\$ 19,785	\$ 41,041
NobelClad	1,975	5,560	2,281
Segment acquisition of property, plant and equipment	13,716	25,345	43,322
Corporate and other	137	1,865	1,773
Consolidated acquisition of property, plant and equipment	<u>\$ 13,853</u>	<u>\$ 27,210</u>	<u>\$ 45,095</u>

	2020	2019
Assets:		
DynaEnergetics	\$ 132,775	\$ 165,775
NobelClad	60,208	58,205
Segment assets	192,983	223,980
Cash and cash equivalents	28,187	20,353
Marketable securities	25,736	—
Prepaid expenses and other assets	24,125	24,535
Deferred tax assets	4,582	3,836
Corporate property, plant and equipment	4,032	4,717
Consolidated assets	<u>\$ 279,645</u>	<u>\$ 277,421</u>

The geographic location of our property, plant and equipment, net of accumulated depreciation, is as follows at December 31:

	2020	2019
United States	\$ 77,283	\$ 76,957
Germany	31,924	29,499
Russia	—	1,495
Canada	102	210
France	85	50
Rest of the world	17	23
Total	<u>\$ 109,411</u>	<u>\$ 108,234</u>

All of our sales are from products shipped from our manufacturing facilities and distribution centers located in the United States, Germany, and Canada. The following represents our net sales based on the geographic location of the customer for years ended December 31:

DynaEnergetics

	2020	2019	2018
United States	\$ 110,903	\$ 264,892	\$ 184,576
India	5,814	588	1,863
Canada	3,830	11,491	23,006
Egypt	3,413	3,356	314
Iraq	3,287	1,104	2,419
Oman	2,551	2,922	1,277
Indonesia	1,832	1,686	1,201
Kuwait	1,716	1,068	2,014
Ukraine	1,591	3,824	3,594
Australia	1,148	654	361
Algeria	1,068	645	1,630
Malaysia	1,049	871	1,063
Pakistan	876	850	364
United Arab Emirates	840	850	3,074
Germany	605	828	419
Rest of the world	5,872	14,795	10,273
Total DynaEnergetics	<u>\$ 146,395</u>	<u>\$ 310,424</u>	<u>\$ 237,448</u>

NobelClad

	2020	2019	2018
United States	\$ 38,311	\$ 44,934	\$ 37,272
Canada	6,597	6,196	7,120
China	5,389	—	12,503
Germany	5,100	4,072	3,649
United Arab Emirates	4,008	1,949	1,019
France	2,895	3,591	4,491
Spain	2,670	1,706	1,083
Norway	2,215	4,496	679
South Korea	1,972	2,964	2,263
Netherlands	1,765	2,026	2,237
Sweden	1,569	2,013	2,337
Australia	1,519	1,498	512
India	1,421	1,243	2,428
Italy	1,220	770	1,618
Belgium	1,213	2,365	3,386
South Africa	870	5	—
Bahrain	588	565	20
Rest of the world	3,444	6,733	6,364
Total NobelClad	<u>\$ 82,766</u>	<u>\$ 87,126</u>	<u>\$ 88,981</u>

During the year ended December 31, 2020, one customer in our DynaEnergetics segment accounted for approximately 12% of total net sales. During the years ended December 31, 2019 and 2018, no customers were responsible for 10% or more of total net sales.

8. DERIVATIVES

We are exposed to foreign currency exchange risk resulting from fluctuations in exchange rates, primarily the U.S. dollar to the euro, the U.S. dollar to the Canadian dollar and, to a lesser extent, other currencies, arising from inter-company and third party transactions entered into by our subsidiaries that are denominated in currencies other than their functional currency. Changes in exchange rates with respect to these transactions result in unrealized gains or losses if such transactions are unsettled at the end of the reporting period or realized gains or losses at settlement of the transaction. We use foreign currency forward contracts to offset foreign exchange rate fluctuations on foreign currency denominated asset and liability positions. None of these contracts are designated as accounting hedges, and all changes in the fair value of the forward contracts are recognized in "Other expense, net" within our Consolidated Statements of Operations.

We execute derivatives with a third party foreign exchange brokerage firm. The primary credit risk inherent in derivative agreements represents the possibility that a loss may occur from the nonperformance of a counterparty to the agreements, and thus we perform a review of the credit risk of our counterparties at the inception of the contract and on an ongoing basis. We anticipate that our counterparties will be able to fully satisfy their obligations under the agreements but will take action if doubt arises regarding the counterparties' ability to perform.

As of December 31, 2020 and 2019, the notional amounts of the forward currency contracts the Company held were \$ 2,092 and \$22,860, respectively. At December 31, 2020 and 2019, the fair values of outstanding foreign currency forward contracts were \$0.

The gain or loss recognized on derivatives is as follows for the years ended December 31:

Derivative type	Income Statement Location	2020	2019	2018
Foreign currency contracts	Other expense, net	<u>\$ (1,058)</u>	<u>\$ (969)</u>	<u>\$ (77)</u>

9. COMMITMENTS AND CONTINGENCIES

Contingent Liabilities

The Company records an accrual for contingent liabilities when a loss is both probable and reasonably estimable. If some amount within a range of loss appears to be a better estimate than any other amount within the range, that amount is accrued. When no amount within a range of loss appears to be a better estimate than any other amount, the lowest amount in the range is accrued.

Legal Proceedings

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. However, litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. We are currently not aware of any such legal proceedings or claims that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or operating results.

The following legal matter was resolved in the second quarter of 2019:

Anti-dumping and Countervailing Duties

In June 2015, U.S. Customs and Border Protection ("U.S. Customs") sent us a Notice of Action that proposed to classify certain of our imports as subject to anti-dumping duties pursuant to a 2010 anti-dumping duty ("AD") order on Oil Country Tubular Goods ("OCTG") from China. A companion countervailing duty ("CVD") order on the same product was in effect as well. The Notice of Action covered one entry of certain raw material steel mechanical tubing made in China and imported into the U.S. from Canada by our DynaEnergetics segment during 2015 for use in manufacturing perforating guns.

Between July 2015 and September 2018, we responded to U.S. Customs regarding their Notice of Action, filed a scope ruling with the U.S. Department of Commerce, and then filed an appeal with the U.S. Court of International Trade. Ultimately, U.S. Customs' position was upheld, and during the quarter ended September 30, 2018, the Company paid accrued AD/CVD and interest to U.S. Customs.

In December 2016, we received notice from U.S. Customs that it may pursue penalties against us related to the AD/CVD issue, and received a formal notice that U.S. Customs was seeking penalties in February 2017. Between then and October 2018, we filed a response to the notice, engaged in discussions with U.S. Customs Headquarters regarding the scope of penalties asserted, and submitted a petition for relief and mitigation of penalties in May 2017. In October 2018, we received a decision in which a mitigated amount of \$8,000 was asserted. In December 2018, we submitted a supplemental petition requesting a waiver of the penalty. On April 12, 2019, we received notice that our waiver request was denied and tendered the \$8,000 in the second quarter of 2019.

Purchase Commitments

NobelClad entered into a contract in 2018 with a supplier to purchase roll bonded products for resale. The agreement included minimum annual thresholds that run through December 31, 2022. In November 2020, NobelClad and the supplier reached an agreement to terminate the agreement and NobelClad paid \$200 to settle any future commitment under the arrangement.

Operating Leases and License Agreements

We lease certain office space, equipment, storage space, vehicles and other equipment under various non-cancelable, operating lease agreements. Additionally, we have a license agreement and a risk allocation agreement related to our U.S. NobelClad business to provide us with the ability to perform our explosive shooting process at a second shooting site in Pennsylvania, which we account for as an operating lease. On January 1, 2019, we adopted ASC 842, and recorded assets and liabilities on the balance sheet for these leases. Refer to Note 2 "Summary of Significant Accounting Policies" for further discussion of our lease accounting including our future commitments under those operating lease agreements.

10. RESTRUCTURING AND ASSET IMPAIRMENTS

DynaEnergetics

During the first quarter of 2020, DynaEnergetics reduced its workforce to address a sharp decline in well completions in the Company's core oil and gas end market principally due to the COVID-19 pandemic. The workforce reduction impacted full-time, part-time and temporary direct-labor roles in manufacturing and assembly as well as general and administrative positions. We recorded total restructuring charges of \$938 during the first quarter of 2020.

During the second quarter of 2020, the COVID-19 pandemic-related collapse in oil and gas demand led to a downturn in well completions and the corresponding demand for DynaEnergetics' products. As a result, DynaEnergetics recorded asset impairment charges of \$1,181 on certain manufacturing assets that will no longer be utilized in production at its Blum, Texas and Troisdorf, Germany facilities. Additionally, DynaEnergetics further reduced its workforce during the quarter and recorded severance expenses of \$121.

During the third quarter of 2020, DynaEnergetics sold the land and buildings in Tyumen, Siberia to a third-party for \$ 448, which was equal to the carrying value of the assets held for sale.

During the third quarter of 2019, DynaEnergetics completed a series of capacity expansion initiatives at its manufacturing facilities in North America and Germany. The new capacity improved DynaEnergetics' operating efficiencies and enabled the business to more effectively serve its global customer base. Capitalizing on its more efficient manufacturing footprint, DynaEnergetics ceased its operations in Tyumen, Siberia in September 2019. During the third and fourth quarters of 2019, the Company released substantially all of its employees inside Russia, sold inventories and certain fixed assets, and proceeded to wind-down the operation.

During the third and fourth quarters of 2019, DynaEnergetics recorded non-cash asset impairment charges of \$ 6,231, which was calculated by comparing the estimated fair value less costs to sell to the carrying value of the assets, severance charges of \$1,261, and other exit costs of \$ 268 within "Restructuring expenses, net and asset impairments." Additionally,

DynaEnergetics recorded a non-cash inventory write down of \$ 630 within "Cost of products sold" and an accounts receivable write down of \$ 131 within "Selling and distribution expenses" associated with the decision to cease operations in Siberia.

During the fourth quarter of 2019, regional shifts in North American drilling and completion activity led DynaEnergetics to close distribution facilities in Canada and Oklahoma and to accelerate a planned consolidation of its perforating system assembly operations in Mt. Braddock, Pennsylvania into its flagship North American facility in Blum, Texas. Additionally, the Company substantially liquidated the assets and liabilities of DynaEnergetics' Siberian operations, as defined under U.S. GAAP. As a result, the related cumulative foreign currency translation loss of \$10,420 was reclassified from the Consolidated Balance Sheets into the Consolidated Statement of Operations and was included within "Restructuring expenses, net and asset impairments."

NobelClad

During the first and second quarters of 2020, NobelClad reduced its workforce as part of cost reduction efforts undertaken in response to the COVID-19 pandemic. The workforce reduction impacted direct-labor roles in manufacturing as well as general and administrative positions. During the fourth quarter of 2020, NobelClad identified certain assets that would no longer be used on a prospective basis and recorded asset impairment charges of \$181 to write-off the remaining net book value of the assets upon disposal. During the fourth quarter of 2017, NobelClad announced plans to consolidate its European production facilities by closing manufacturing operations in France. During the second quarter of 2019, NobelClad sold its production facility in France and related assets and recognized a gain of \$519. During 2019, NobelClad also recorded an additional accrual of \$ 1,166 for known and probable severance liabilities related to employees terminated as part of closing the manufacturing operations in France. The additional severance accrual was recorded based, in part, on a successful appeal of severance benefits by some terminated employees during the second quarter of 2019.

Corporate

During the first quarter of 2020 in conjunction with the cost reduction efforts undertaken by DynaEnergetics and NobelClad in response to the COVID-19 pandemic, we eliminated certain positions in our corporate offices.

Total restructuring charges incurred for these programs are as follows and are reported in the "Restructuring expenses, net and asset impairments" line item in our Consolidated Statements of Operations for the years ended December 31:

2020						
	Severance	Asset Impairment	Contract Termination Costs	Equipment Moving Costs	Other Exit Costs (1)	Total
DynaEnergetics	\$ 936	\$ 1,181	\$ 19	\$ 126	\$ 660	\$ 2,922
NobelClad	140	180	—	—	26	346
Corporate	119	—	—	—	—	119
Total	\$ 1,195	\$ 1,361	\$ 19	\$ 126	\$ 686	\$ 3,387

2019						
	Severance	Asset Impairment / (Gain on asset disposals)	Contract Termination Costs	Equipment Moving Costs	Other Exit Costs	Total
DynaEnergetics	\$ 1,671	\$ 6,277	\$ —	\$ —	\$ 10,683	\$ 18,631
NobelClad	1,166	(636)	39	233	70	872
Total	\$ 2,837	\$ 5,641	\$ 39	\$ 233	\$ 10,753	\$ 19,503

(1) Other exit costs include DynaEnergetics Siberia's cumulative translation losses reclassified into the Consolidated Statement of Operations upon substantial liquidation.

	2018				
	Severance	Contract Termination Costs	Equipment Moving Costs	Other Exit Costs	Total
NobelClad	\$ 637	\$ 43	\$ 249	\$ 185	\$ 1,114

The changes to the restructuring liability within accrued expenses associated with these programs is summarized below:

	December 31, 2019	Expense (1)	Payments	Currency and Other Adjustments	December 31, 2020
Severance	\$ 2,404	\$ 1,195	\$ (2,547)	\$ (94)	\$ 958
Contract termination costs	—	19	(19)	—	—
Equipment moving costs	—	126	(126)	—	—
Other exit costs	271	686	(1,132)	175	—
Total	\$ 2,675	\$ 2,026	\$ (3,824)	\$ 81	\$ 958

(1) Excludes asset impairment expenses

11. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

Selected unaudited quarterly financial data were as follows for the years ended December 31:

	2020			
	Quarter ended March 31,	Quarter ended June 30,	Quarter ended September 30,	Quarter ended December 31,
Net sales	\$ 73,564	\$ 43,203	\$ 55,281	\$ 57,113
Gross profit	\$ 24,470	\$ 6,604	\$ 13,593	\$ 12,186
Net income (loss)	\$ 4,155	\$ (5,648)	\$ 1,008	\$ (927)
Net income (loss) per share				
Basic	\$ 0.28	\$ (0.38)	\$ 0.07	\$ (0.06)
Diluted	\$ 0.28	\$ (0.38)	\$ 0.07	\$ (0.06)

	2019			
	Quarter ended March 31,	Quarter ended June 30,	Quarter ended September 30,	Quarter ended December 31,
Net sales	\$ 100,135	\$ 110,954	\$ 100,094	\$ 86,367
Gross profit	\$ 36,405	\$ 42,073	\$ 36,224	\$ 30,221
Net income (loss)	\$ 15,170	\$ 17,244	\$ 6,915	\$ (5,288)
Net income (loss) per share				
Basic	\$ 1.02	\$ 1.17	\$ 0.47	\$ (0.36)
Diluted	\$ 1.01	\$ 1.15	\$ 0.46	\$ (0.36)

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

There are no changes in or disagreements with accountants on accounting and financial disclosure for the fiscal year ended December 31, 2020.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2020. Our management's annual report on internal control over financial reporting is set forth below.

Management's Report on Internal Control over Financial Reporting

The management of DMC Global Inc. ("DMC") is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f).

Under the supervision and with the participation of DMC's management, including its Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of DMC's internal control over financial reporting as of December 31, 2020 based on the 2013 framework in "Internal Control - Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. In designing and evaluating the internal control over financial reporting, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Based upon this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2020, our internal controls over financial reporting were effective.

DMC's internal control over financial reporting as of December 31, 2020 has also been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their attestation report which expressed an unqualified opinion and is included elsewhere herein.

Changes in Internal Control Over Financial Reporting

We rely extensively on information systems to manage our business and summarize and report operating results. In the fourth quarter of 2019, we completed an upgrade of DynaEnergetics' enterprise resource planning ("ERP") system. This project is expected to improve the efficiency and effectiveness of certain financial and business transaction processes, as well as the underlying systems environment. The upgraded ERP system will remain a significant component of our internal control over financial reporting.

Other than the ERP system upgrade noted above, there has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act) during the fourth quarter of 2020, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

/s/ Kevin Longe

Kevin Longe
President and Chief Executive Officer
February 22, 2021

/s/ Michael Kuta

Michael Kuta
Chief Financial Officer
February 22, 2021

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of DMC Global Inc.

Opinion on Internal Control over Financial Reporting

We have audited DMC Global Inc.'s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, DMC Global Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15(a) and our report dated February 22, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Denver, Colorado
February 22, 2021

ITEM 9B. Other Information

Not applicable.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

Item 10 incorporates information by reference to our Proxy Statement for the 2021 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days of the close of fiscal year 2020.

ITEM 11. Executive Compensation

Item 11 incorporates information by reference to our Proxy Statement for the 2021 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days of the close of fiscal year 2020.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Item 12 incorporates information by reference to our Proxy Statement for the 2021 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days of the close of fiscal year 2020.

For information regarding securities authorized for issuance under our equity compensation plans see the Proxy Statement for our 2021 Annual Meeting of Shareholders, which information is incorporated herein by reference.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

Item 13 incorporates information by reference to our Proxy Statement for the 2021 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days of the close of fiscal year 2020.

ITEM 14. Principal Accounting Fees and Services

Item 14 incorporates information by reference to our Proxy Statement for the 2021 Annual Meeting of Stockholders, which is expected to be filed with the SEC within 120 days of the close of fiscal year 2020.

PART IV**ITEM 15. Exhibits and Financial Statement Schedules****(a)(1) Financial Statements**

See Index to Financial Statements in Item 8 of this Annual Report on Form 10-K, which is incorporated herein by reference.

(a)(2) Financial Statement Schedules

See Schedule II beginning on page [90](#) of this Annual Report on Form 10-K.

(a)(3) Exhibits

Exhibit Number	Description
1.1	Equity Distribution Agreement by and between the Company and KeyBanc Capital Markets Inc., dated as of October 22, 2020 (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed with the Commission on October 22, 2020).
3.1	Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed with the Commission on November 4, 2016).
3.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.4 to the Company's Current Report on Form 8-K filed with the Commission on August 27, 2018).
4.1	Description of Common Stock (incorporated by reference to Exhibit 4.1 to the Company's Annual Report on Form 10-K filed with the Commission on February 24, 2020).
10.1	Credit Agreement dated as of March 8, 2018, by and among the Company, the borrowers party thereto, the guarantors party thereto, the Lenders party thereto, and KeyBank National Association, as administrative agent. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 10-K filed with the Commission on March 8, 2018).
10.2	First Amendment to the Credit Agreement dated as of March 26, 2020, by and among the Company, the borrowers party thereto, the guarantors party thereto, the Lenders party thereto, and KeyBank National Association, as administrative agent (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on July 23, 2020).
10.3	Second Amendment to the Credit Agreement dated as of June 25, 2020, by and among the Company, the borrowers party thereto, the guarantors party thereto, the Lenders party thereto, and KeyBank National Association, as administrative agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on June 26, 2020).
10.4	Third Amendment to the Credit Agreement dated as of October 22, 2020, by and among the Company, the borrowers party thereto, the guarantors party thereto, the Lenders party thereto, and KeyBank National Association, as administrative agent (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed with the Commission on October 22, 2020).
10.6	Employment Agreement, dated as of March 1, 2013, by and between the Company and Kevin Longe (incorporated by reference to Exhibit 10.2 to the Company's Form 10-K filed with the Commission on March 14, 2013). *
10.7	Employment Offer Letter dated February 23, 2014, from the Company to Michael L. Kuta (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on March 31, 2014). *
10.8	Employment Agreement dated July 26, 2013, from the Company to Ian Grieves (incorporated by reference to Exhibit 10.7 to the Company's Form 10-K filed with the Commission on March 9, 2017). *
10.9	Employment Offer Letter dated July 17, 2016, from the Company to Michelle H. Shepston (incorporated by reference to Exhibit 10.8 to the Company's Form 10-K filed with the Commission on March 9, 2017). *
10.10	Employment Agreement dated July 24, 2020 from the Company to Antoine Nobili. *
10.11	2006 Stock Incentive Plan, as amended by Amendment No. 1 to the Company's 2006 Stock Incentive Plan dated March 11, 2013 (incorporated by reference to Exhibit 10.5 to the Company's Annual Report on Form 10-K filed with the Commission on March 7, 2014). *
10.12	Performance-Based Plan (incorporated by reference to Exhibit 10.3 to the Company's Form 8-K filed with the Commission on May 24, 2013). *
10.13	Amended and Restated Nonqualified Deferred Compensation Plan. (incorporated by reference to Exhibit 10.13 to the Company's Form 10-K filed with the Commission on March 8, 2018) *

Exhibit Number	Description
10.14	Form of Executive Officer Restricted Stock Award Agreement under 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Form 8-K filed with the Commission on June 12, 2007). *
10.15	Form of Non-Executive Director Restricted Stock Award Agreement under 2006 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to the Company's Form 8-K filed with the Commission on June 12, 2007). *
10.16	2016 Omnibus Incentive Plan dated November 4, 2016 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on November 4, 2016).
10.17	Form of Executive Officer Restricted Stock Award Agreement under 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.16 to the Company's Form 10-K filed with the Commission on March 9, 2017). *
10.18	Form of Director Restricted Stock Award Agreement under 2016 Omnibus Incentive Plan. (incorporated by reference to Exhibit 10.18 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.19	Form of Executive Officer Restricted Stock Unit Agreement under 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.17 to the Company's Form 10-K filed with the Commission on March 9, 2017). *
10.20	Form of Executive Officer Performance Unit Agreement under 2016 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.18 to the Company's Form 10-K filed with the Commission on March 9, 2017). *
10.21	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.4 to the Company's Form 8-K filed with the Commission on January 24, 2011). *
10.22	Sublease for Dunbar, Pennsylvania clad metal shooting site dated December 16, 2000 by and between Mypodiamond, Inc. and the Company. (incorporated by reference to Exhibit 10.22 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.23	License Agreement dated July 29, 2008 by and between Coolspring Stone Supply Company, Inc. ("CSSC") and the Company. (incorporated by reference to Exhibit 10.23 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.24	First Amendment to License Agreement dated September 24, 2012 by and between CSSC and the Company. (incorporated by reference to Exhibit 10.24 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.25	Second Amendment to License Agreement dated March 31, 2018 by and between CSSC and the Company.
10.26	Risk Allocation, Consulting and Services Agreement dated April 1, 2008 by and between Snoddy Management, Inc. ("SMI") and the Company. (incorporated by reference to Exhibit 10.25 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.27	First Amendment to Risk Allocation, Consulting and Services Agreement dated September 24, 2012 by and between SMI and the Company. (incorporated by reference to Exhibit 10.26 to the Company's Form 10-K filed with the Commission on March 8, 2018)
10.28	Second Amendment to Risk Allocation, Consulting and Services Agreement dated March 31, 2018 by and between SMI and the Company.
10.29	Company's Employee Stock Purchase Plan, as amended (incorporated by reference from Appendix A to the Company's Definitive Proxy Statement filed April 5, 2017, relating to the Company's 2017 Annual Meeting of Stockholders).*
10.30	Lease Agreement for Broomfield, Colorado office space dated August 20, 2018 between Semaho, Inc. and the Company (incorporated by reference to Exhibit 10.28 to the Company's Form 10-Q filed on October 25, 2018).
21.1	Subsidiaries of the Company.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
31.1	Certification of the President and Chief Executive Officer pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to 17 CFR 240.13a-14(a) or 17 CFR 240.15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the President and Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit Number	Description
101	The following materials from the Annual Report on Form 10-K of DMC Global Inc. For the year ended December 31, 2015, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statement of Stockholders' Equity, (v) the Consolidated Statements of Cash Flows, and (vi) the Notes to Consolidated Financial Statements.**

* Management contract or compensatory plan or arrangement.

** Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files on Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DMC Global Inc.

February 22, 2021

By: /s/ Michael Kuta
Michael Kuta
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Company and in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
<u>/s/ Kevin T. Longe</u> Kevin T. Longe	President and Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2021
<u>/s/ Michael Kuta</u> Michael Kuta	Chief Financial Officer (Principal Financial and Accounting Officer)	February 22, 2021
<u>/s/ David C. Aldous</u> David C. Aldous	Chairman and Director	February 22, 2021
<u>/s/ Andrea E. Bertone</u> Andrea E. Bertone	Director	February 22, 2021
<u>/s/ Yvon Pierre Cariou</u> Yvon Pierre Cariou	Director	February 22, 2021
<u>/s/ Robert A. Cohen</u> Robert A. Cohen	Director	February 22, 2021
<u>/s/ Ruth I. Dreessen</u> Ruth I. Dreessen	Director	February 22, 2021
<u>/s/ Richard P. Graff</u> Richard P. Graff	Director	February 22, 2021
<u>/s/ Michael A. Kelly</u> Michael A. Kelly	Director	February 22, 2021
<u>/s/ Clifton Peter Rose</u> Clifton Peter Rose	Director	February 22, 2021

**DMC GLOBAL INC.
INDEX TO SCHEDULE II
AS OF DECEMBER 31, 2020**

[Schedule II \(a\)](#)

PAGE

[91](#)

DMC GLOBAL INC.
SCHEDULE II(a) - VALUATION AND QUALIFYING ACCOUNTS AND RESERVES
ALLOWANCE FOR DOUBTFUL ACCOUNTS

Year ended -	Balance at beginning of period	Additions charged to income	Accounts receivable written off	Currency and Other Adjustments	Balance at end of period
December 31, 2018	\$ 1,088	\$ 282	\$ (742)	\$ (115)	\$ 513
December 31, 2019	\$ 513	\$ 575	\$ (36)	\$ (85)	\$ 967
December 31, 2020	\$ 967	\$ 3,431	\$ (1,429)	\$ (364)	\$ 2,605

91

Exhibit 10.10

ADDENDUM TO MR. ANTOINE NOBILI'S WORK CONTRACT

BY AND BETWEEN THE UNDERSIGNED:

- NobelClad Europe SAS, headquartered at 105 rue des Frères Voisin, 66000 Perpignan, registered in the Business Register of Perpignan under SIREN No. 431 679 497 (the "Company"), acting through DMC Global Inc., as Chairman, and Michael KUTA, in his capacity as an officer of DMC Global Inc.

The Social Security contributions of the Company are disbursed to the URSSAF [Organization for the payment of Social Security benefits and family allocations] of Languedoc Roussillon,

Party of the first part

AND

Mr. Antoine NOBILI, a French national, born on May 29, 1971

Party of the second part

Preamble

Mr. Antoine NOBILI was hired as a Research and Development Engineer on May 2, 1995. Since July 16, 2003, he has performed the duties of Director, Management Level, Position IIIC index 240 pursuant to the collective bargaining agreement of Engineers and Managerial Staff in Metallurgy of March 13, 1972, as amended.

The purpose of this addendum is to specify the duties carried out by Mr. Antoine NOBILI in his capacity as Director of the Company following his appointment as President of the NobelClad Division of DMC Global Inc. as of July 24, 2020.

The purpose of this addendum is to specify the technical functions established for Mr. Antoine NOBILI in his capacity as Director of the Company. These functions are well defined and differ from the corporate mandate, requiring a specific technical description that makes it possible to distinguish them from his functions in management and administration arising from the corporate mandate.

THEREFORE, THE FOLLOWING HAS BEEN DECIDED AND AGREED TO:

Article 1 – Duties

In his capacity as Director, Mr. Antoine NOBILI, under the Directorship of DMC Global Inc., is especially charged with:

- representing NobelClad Europe SAS before third parties according to the directions communicated to him;
- implementing the sales strategy determined by the company headquarters;
- submitting a provisional budget for the coming year and executing it on an operational level;
- managing the expenses associated with the Company's administration according to the financial responsibilities defined and attached to this addendum;
- proposing an investment plan for the Company's needs;
- submitting his HR needs to DMC Global Inc. and presiding over the CSE [Social and Economic Committee].

Article 2 – Duration of the job

Article 2.1 Agreement on a daily flat rate

As Director of the Company, Mr. Antoine NOBILI is free to carry out his duties and establish his daily schedule as he sees fit, which cannot be predetermined and is not subject to the collective schedule.

On this basis, Mr. Antoine NOBILI carries out his activities in the framework of a defined flat rate based on the number of days worked during the year, in other words 218 work days for a full work year (including the Day of Solidarity) and for a complete annual vacation. The reference year extends from January 1 to December 31. This flat rate is calculated based on the company agreement of April 27, 2001.

Article 2.2 Modalities of monitoring the organization of work

Mr. Antoine NOBILI shall report half days worked and not worked by using the company's applicable form for the calculation of work time.

Mr. Antoine NOBILI must carry out his function as Director of the Company by full day or half day.

However, Mr. Antoine NOBILI must comply with the minimum daily rest of 11 consecutive hours as well as the minimum weekly rest of 35 hours.

Mr. Antoine Nobili will receive regular and accurate feedback on his work duties and activities. At a minimum, this feedback includes an annual one-on-one meeting, to be scheduled at the discretion of the Directors.

This meeting will deal with his work activities, the scope of the work days, the balance between his professional activities and his personal life and, finally, with his compensation.

Mr. Antoine NOBILI was notified regarding the modalities of exercising his right not to be reachable by phone or e-mail outside of working hours, which he has acknowledged.

Article 3 – Compensation

In view of his position and place in the corporate hierarchy as specified in Article 1 above, the minimal annual salary currently guaranteed for a base rate of 218 days per year is 80,227 euros.

In view of the previously cited characteristics of this function, Mr. Antoine NOBILI is compensated on the basis of a flat rate based on the number of work days per year. This flat rate is currently 218 days for a complete vacation.

This compensation is independent of the actual number of hours worked and days completed during the pay period.

The monthly gross flat rate compensation for Mr. Antoine NOBILI is 14,709.77 euros, based on 218 days per year, payable monthly.

Article 4 – Professional confidentiality

Mr. Antoine NOBILI agrees to exercise the strictest discretion when dealing with all persons outside the Company regarding information associated with Company activities to which he has access at that time, and within the framework of his duties during and after the execution of this contract. He is also bound to confidentiality regarding the Company's technical methods and procedures.

Mr. Antoine NOBILI will refrain from revealing any confidential information. The following information is considered confidential for the application of this clause: sales data, know-how, technical documentation, and access codes.

Any failure to carry out these obligations during the course of execution of the contract will constitute misconduct which may justify severing the contractual relationship.

Any failure to carry out these obligations after the execution of the contract will constitute misconduct which may lead to civil liability for Mr. Antoine NOBILI.

This clause will continue to be applicable even after the expiration of this contract, whatever the cause of said expiration, for a period of 2 years.

Article 5 – Contractual system

It is hereby recalled that, in view of the Company's main activity, the relationship between the parties is currently governed by the national collective bargaining agreement for engineers and managerial staff in metallurgy of March 13, 1972, as amended, and its addendums, which will be applicable to these relationships according to the conditions set forth by legislation on this subject.

Mr. Antoine NOBILI has been informed that he has access to the national inter-professional agreements, as well as to the industry specific agreements via the website: <https://uimm.lafabriquedelavenir.fr/industrie/>.

NobelClad Europe SAS and Mr. Antoine NOBILI must, pursuant to Article L 2254-1 of the Labor Code, comply with the applicable contractual provisions as per the agreement, which will govern their relationships.

Article 6 – Professional development meetings

Pursuant to current legal and contractual regulations, Mr. Antoine NOBILI will benefit from professional development meetings with his employer, focused on his professional development opportunities, especially with regard to qualifications and employment.

Every six years, this professional development meeting will provide a review and summary of his career path.

Article 7 – Miscellaneous provisions

The clauses in the initial contract remain unchanged.

Issued in two copies and sent to each party on July 24, 2020.

Signatures preceded by the handwritten note "read and approved – suitable for agreement".

For the company

NobelClad Europe SAS

Duly represented by DMC Global Inc., as Chairman,
itself duly represented by Michael Kuta as an officer

For the employee

Antoine NOBILI

SUBSIDIARIES OF THE COMPANY

Name of Subsidiary	State or Jurisdiction of Incorporation
DMC Korea Inc.	Colorado
DynaEnergetics Europe GmbH	Germany
DYNAenergetics Canada Inc.	Canada
NobelClad Europe GmbH	Germany
DynaEnergetics US, Inc	Colorado
Dynamic Materials Corporation (HK) Ltd	Hong Kong
Nobelclad Europe SAS	France
Dynamic Materials Corporation (Shanghai) Trading Co. Ltd.	China

**CONSENT OF INDEPENDENT REGISTERED PUBLIC
ACCOUNTING FIRM**

We consent to the incorporation by reference in the following Registration Statements of DMC Global Inc. (the "Company"):

- (1) Registration Statement (Form S-3 No. 333-238211),
- (2) Registration Statements (Form S-8 No. 333-143355, Form S-8 No. 333-188796 and Form S-8 No. 333-211328) pertaining to the Company's 2006 Stock Incentive Plan,
- (3) Registration Statements (Form S-8 No. 333-182979 and Form S-8 No. 333-218177) pertaining to the Company's Employee Stock Purchase Plan, and
- (4) Registration Statement (Form S-8 No. 333-214460) pertaining to the Company's 2016 Omnibus Incentive Plan;

of our reports dated February 22, 2021, with respect to the consolidated financial statements and schedule of DMC Global Inc. and the effectiveness of internal control over financial reporting of DMC Global Inc. included in this Annual Report (Form 10-K) of DMC Global Inc. for the year ended December 31, 2020.

/s/ Ernst & Young LLP

Denver, Colorado
February 22, 2021

CERTIFICATIONS

I, Kevin T. Longe, certify that:

1. I have reviewed this annual report on Form 10-K of DMC Global Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 22, 2021

/s/ Kevin T. Longe

Kevin T. Longe
President and Chief Executive Officer
of DMC Global Inc.

CERTIFICATIONS

I, Michael Kuta, certify that:

1. I have reviewed this annual report on Form 10-K of DMC Global Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: February 22, 2021

/s/ Michael Kuta

Michael Kuta

Chief Financial Officer of DMC Global Inc.

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of DMC Global Inc. (the "Company") on Form 10-K for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kevin T. Longe, President and Chief Executive Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (i) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 22, 2021

/s/ Kevin T. Longe
Kevin T. Longe
President and Chief Executive Officer
of DMC Global Inc.

A signed original of this written statement required by Section 906 has been provided to DMC Global Inc. and will be retained by DMC Global Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

**CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of DMC Global Inc. (the "Company") on Form 10-K for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Kuta, Chief Financial Officer of the Company, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (i) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 22, 2021

/s/ Michael Kuta

Michael Kuta

Chief Financial Officer of DMC Global Inc.

A signed original of this written statement required by Section 906 has been provided to DMC Global Inc. and will be retained by DMC Global Inc. and furnished to the Securities and Exchange Commission or its staff upon request.