



Making Our World A Better Place



2019 Environmental, Social & Governance Report

This report contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements often address our expected future operating and financial performance and financial condition, and often contain words such as “anticipate,” “believe,” “expect,” “plan,” “estimate,” “project,” and similar terms. These forward-looking statements do not constitute guarantees of future performance and are subject to a variety of risks and uncertainties that may cause actual results to differ materially from those expressed in the forward-looking statements. Our actual future results, including the achievement of our targets, goals or commitments, could differ materially from our projected results as the result of changes in circumstances, assumptions not being realized, or other risks, uncertainties and factors. Such risks, uncertainties and factors include the risk factors discussed in Item 1A of our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission (“SEC”), as well as, with respect to our sustainability targets, goals, and commitments outlined in this report or elsewhere, the challenges and assumptions identified in this report and other assumptions, risks, uncertainties and factors identified in this report. You should consider the forward-looking statements in this report in conjunction with our Annual Report on Form 10-K and our subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K filed with the SEC. We urge you to consider all of the risks, uncertainties and factors identified above or discussed in such reports carefully in evaluating the forward-looking statements in this report. Barnes cannot assure you that the results reflected or implied by any forward-looking statement will be realized or, even if substantially realized, that those results will have the forecasted or expected consequences and effects. The forward-looking statements in this report are made as of the date of this report, unless otherwise indicated, and we undertake no obligation to update these forward-looking statements to reflect subsequent events or circumstances.



Barnes Group Overview

Who We Are

Barnes Group Inc. (BGI or the Company) is a global provider of highly engineered products, differentiated industrial technologies, and innovative solutions, serving a wide range of end markets and customers. Headquartered in Bristol, CT and founded in 1857, Barnes Group's specialized products and services are used in far-reaching applications including aerospace, transportation, manufacturing, automation, healthcare, and packaging. The Company's skilled and dedicated employees around the globe are committed to the highest performance standards and achieving consistent, sustainable profitable growth.





Segment Overview

We operate under two global business segments: Industrial and Aerospace.

Industrial

The Industrial segment is a global provider of highly-engineered, high-quality precision components, products and systems for critical applications serving a diverse customer base in end-markets such as transportation, industrial equipment, automation, personal care, packaging, electronics, and medical devices. Focused on innovative custom solutions, Industrial participates in the design phase of components and assemblies whereby customers receive the benefits of application and systems engineering, new product development, testing and evaluation, and the manufacturing of final products. Products are sold primarily through its direct sales force and global distribution channels. Industrial's Molding Solutions business designs and manufactures customized hot runner systems, advanced mold cavity sensors and process control systems, and precision high cavitation mold assemblies - collectively, the enabling technologies for many complex plastic injection molding applications. Industrial's Force & Motion Control business provides innovative cost effective engineered solutions for a wide range of metal forming and other industrial markets. The Automation business designs and develops robotic grippers, advanced end-of-arm tooling systems, sensors and other automation components for intelligent robotic handling solutions and industrial automation applications. Industrial's Engineered Components business manufactures and supplies precision mechanical products used in transportation and industrial applications, including mechanical springs and high-precision punched and fine-blanked components.

Aerospace



The Aerospace segment is a global manufacturer of complex fabricated and precision-machined components and assemblies for original equipment manufacturers (OEM) of turbine engines, airframes and industrial gas turbines, and the military. The Aerospace aftermarket business provides aircraft engine component maintenance, repair and overhaul (MRO) services, including services performed under our Component Repair Programs (CRPs), for many of the world's major turbine engine manufacturers, commercial airlines and the military. Aftermarket activities also include the manufacture and delivery of turbine jet engine spare parts under our revenue sharing programs (RSPs).



Corporate Social Responsibility and ESG at Barnes Group

Barnes Group is committed to corporate responsibility and furthering environmental, social and governance principles. We believe this allows us to create value for our stakeholders and is key to our success as a responsible and environmentally friendly organization. Since the launch of Barnes Group's formal company-wide Corporate Social Responsibility (CSR) initiative in 2014, we continue to identify and implement ways we can benefit the environment and society while we execute our vision and strategy within our businesses. This initiative is led by our Director of Health, Safety & Environmental Affairs (HSE), with the full support of our company's Senior Leadership and the Board of Directors.

In 2019, we amplified our support of Corporate Social Responsibility (CSR) and, beginning this year, we have officially adopted the term of "Environmental, Social and Governance" or "ESG" which will now replace our usage of the term "CSR." We believe that the term ESG better represents and aligns with the Company's broad-based focus on our key stakeholders – our customers, shareholders, employees and the community.



In addition, in 2019, in preparation of this enhanced focus on ESG, and with the support of the Board and Company management, we proudly announced the formation of the Company's Environmental, Social and Governance Committee (ESG Committee). The ESG Committee is comprised of Barnes employees – company leaders – who are focused on moving the Company forward on the various ESG projects identified by the Company, consistent with the Barnes values. We also published the Charter of the ESG Committee on our website and have announced our commitment to corporate social responsibility in particular because of our recognition that this commitment creates value for our stakeholders and is key to our success as a responsible and sustainable organization. In that Charter, we establish the Committee's focus, consistent with the Barnes Values and our Barnes Enterprise System, on:

- Monitoring global public policy trends, issues, regulatory matters, and other concerns related to ESG;
- Advising and making recommendations to the Senior Leadership Team on actions that the Company and Committee can take to support the Company's sustainability initiatives;
- Fostering the Company's progress toward its diversity and inclusion goals;
- Assisting in the Board's oversight of risks and opportunities relating to ESG matters;
- Identifying and taking actions and proactive steps to address ESG risks;
- Periodically evaluating the Company's ESG performance;
- Reviewing the Company's human and workplace rights policies and/or practices and how the Company demonstrates respect for human and workplace rights in our business, in our supply chain, and in the communities in which we operate;
- Annually assessing and reporting to the Board on the performance of the Company's ESG efforts;
- Reviewing the Company's policies and practices related to corporate philanthropy; and
- Preparing and publishing the Company's Environmental, Social and Governance Report.

The ESG Committee regularly reports to our Senior Leadership Team and to our Board and consists of a cross-functional set of leaders from a variety of functional and operational teams, including: Operations, Health, Safety and Environmental Affairs, Investor Relations, Legal, Global Compliance Office, Supply Chain, Business Development, Finance, Human Resources, Corporate Communications and Internal Audit. We look forward to the difference that the ESG Committee will make as we continue the journey of corporate social responsibility.

This report provides an update on our more recent ESG performance and the goals we have set as we drive improvements in environmental sustainability, diversity and inclusion, and social and charitable impact in the communities where we operate. It will be our last stand alone report as our enhanced focus on ESG will also include the transformation of our ESG website with the goal of providing interactive ESG information to our stakeholders on a more frequent basis.

The Barnes Group Values

"It's not just what we do, it's how we do it." At the heart of this statement, often cited by Barnes Group's leaders and employees, are the Barnes Group Values which are the cornerstone of the Company and the bedrock upon which Barnes has been built and sustained for over 160 years.

Consistent with these Values, we strive to conduct business with the highest ethical standards, always mindful that our values define who we are and what we stand for, both as employees and as a company. At Barnes Group, we believe in:

Integrity – We maintain the highest ethical standards, honoring our commitments and being open and honest in all that we do.

Empowerment – We recognize that our people are the source of our success. We enable everyone to make a positive personal impact while being accountable for their behaviors and the results they deliver to our communities, customers, and stockholders.

Emotional Intelligence – We identify our own emotions and styles of learning along with those of others. We motivate others and ourselves to achieve results while also managing our relationships with understanding and reason.

Collaboration – We build diverse and inclusive teams that leverage our collective experience and expertise.

Competitiveness – We drive relentlessly to compete on the merits of our products and services, offering highly engineered products, differentiated industrial technologies and innovative solutions.

Continuous Improvement – We create a culture that embraces change and innovation, improves processes, eliminates waste and builds on an unwavering commitment to quality.

Workplace Fairness – We provide opportunity in a culture that promotes dignity and respect for our employees in a safe and mutually rewarding environment.

Globalization – We embrace the expansion of our business around the world as an opportunity, and value diversity and inclusion as we work seamlessly across borders. We partner with employees, suppliers and customers of different cultures while respecting and contributing to the communities where we work and live.

ESG and the Barnes Group Values

In 2019, the Company focused on driving the Barnes Group Values forward as part of our enhanced focus on ESG. Each year, as part of its Annual Achievement Awards, Barnes Group recognizes employees who exemplify the Barnes Group Values and who have led or been part of a project during the previous year that made a (i) cultural, (ii) competitive, (iii) financial, or (iv) innovative contribution to the Company or one of its businesses. In 2019, the Company added a new, fifth, category of achievement that can be recognized as driving the Barnes Group Values – sustainability. Therefore, beginning in 2020, Barnes employees who lead or participate in projects that support environmental sustainability can now be recognized with an Annual Achievement Award. We believe that including this category is an important step forward in incentivizing projects and ambitions that will help us reduce our environmental footprint and yield a more sustainable world consistent with the Barnes Group Values.



Ethics, Compliance and Accountability

Consistent with the Barnes Group Values, the Barnes Group Code of Business Ethics and Conduct (Code of Conduct) lays out the principles that guide the behavior of our employees, officers and directors as we do business around the world. Our Code of Conduct, which is available in multiple languages for our global constituencies, provides guidelines, practical direction and helpful resources to promote ethical conduct and support compliance with applicable laws and regulations.

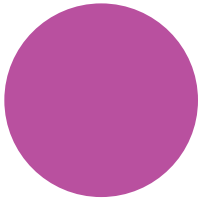
Employees are expected to complete annual Code of Conduct refresher training, at which time they re-affirm adherence to the Code of Conduct. All newly-acquired businesses are integrated into our compliance and training program as well. Our businesses complete an annual certification process that enables us to monitor compliance with anti-corruption policies. Certain employees are assigned, based on factors such as role and geographic location, more targeted ethics and compliance training on topics such as anti-corruption and trade compliance.

In addition, in January of 2020, we expanded our periodic leadership pulse process to facilitate identification and communication of any facts or circumstances which may indicate a potential human rights concern in our various locations and businesses. Barnes Group continues to enhance its employee training and awareness program based on role and risk exposure.

Barnes Group encourages employees to raise questions and concerns. We offer multiple channels for doing so, accessible at local work sites and the corporate office. Anonymous reporting tools, both online and via telephone, are also available. We periodically survey our officers and business leaders on key compliance areas and provide opportunities for them to notify us of concerns or conflicts of interest.

Barnes Group takes every question and concern seriously and will not tolerate any form of retaliation against any person for raising a question or concern in good faith. Employee concerns are addressed through fair examination, objective determination of the facts, and appropriate corrective action measures.

We also expect all of our business partners, suppliers and agents to hold themselves to equally high standards. Built on the bedrock of our Corporate Values, our Code of Business Ethics and Conduct for Suppliers (Supplier Code), published on the Barnes corporate website, communicates the expectations we have for our suppliers and partners, setting forth the “how we do it and what we expect” when it comes to selecting the supplier partnerships we build around the world. The Supplier Code makes it clear that all suppliers and partners must adhere to the Barnes Code of Conduct, and that Barnes’ suppliers and partners must ensure the safety, security and fundamental human rights of their employees while taking steps to safeguard the environment, all of which are consistent with our core Corporate Values.



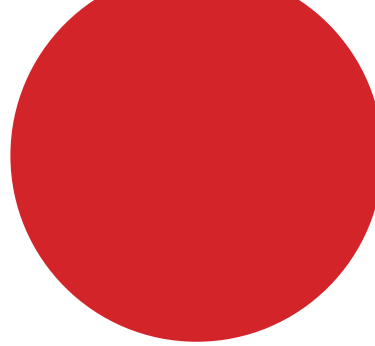
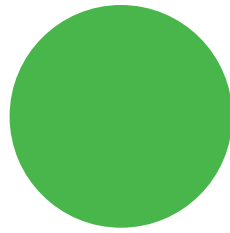
Governance

Barnes Group is a publicly held company that trades on the New York Stock Exchange under the ticker symbol “B”. The Board of Directors is our highest governing body, and is actively engaged in risk management oversight, succession planning, and corporate governance matters. We have a standing Audit Committee, Compensation and Management Development Committee, Executive Committee, and Corporate Governance Committee. Our Board is comprised of twelve directors, eleven of whom are independent. Our Board is ethnically and racially diverse, and three of our directors, or 25%, are women.

Barnes Group maintains a comprehensive set of policies and procedures to enable effective corporate governance. The following documents are available in the Investor Relations section of our corporate website at www.BGInc.com:

- Audit Committee Charter
- California Transparency in Supply Chains Act Disclosure
- Charter of the ESG Committee
- Code of Business Ethics and Conduct
- Code of Business Ethics and Conduct for Suppliers
- Compensation and Management Development Committee Charter
- Conflict Minerals Policy
- Corporate Governance Committee Charter
- Corporate Governance Guidelines
- Policy Regarding Reporting of Complaints and Concerns
- Political Expenditures and Public Policy Matters
- UK Tax Disclosure





Health, Safety, and Environmental Affairs (HSE)

Barnes Group is committed to promoting and maintaining a safe workplace for our employees and strives to ensure that all aspects of our operations are conducted in conformance with applicable laws and regulations, as well as with all of our corporate policies pertaining to workplace safety and protection of the environment.

In certain cases, the Company or its strategic business units (SBUs) may establish more stringent requirements as policies, procedures or directives. At the corporate level, these requirements are documented as BGI HSE Standards.

The BGI HSE Standards are consistent with our commitment to worker health and safety and to environmental protection, as well as prevailing regulatory frameworks in place around the globe. All locations are required to meet local laws and regulations, or the BGI HSE Standards, whichever are more stringent. Furthermore, our internal corporate audit program measures and monitors progress using standard protocols, ensuring that actions are tracked to closure, and results are reported to Senior Leadership.

Our past and present business operations require the use and handling of chemicals and hazardous products that are subject to extensive environmental laws and regulations pertaining to the discharge of materials into the environment, the disposal of wastes, and the use, shipping, labeling, and storage of chemicals and hazardous materials. We closely monitor hazardous waste management and applicable environmental permitting and reporting requirements to ensure compliance with applicable laws while striving to minimize the environmental impact of our operations through our management systems approach to HSE.

Across the globe in 2019, Barnes Group had one HSE non-conformance for which a penalty was paid. The deficiency was related to a site level air emissions permit and was corrected in a timely fashion to the satisfaction of the governing agencies. Our goal continues to be to eliminate HSE non-compliance.






Safety

We have ambitious goals when it comes to identifying and controlling hazards in the workplace to ensure compliance and our employees' safe return to their homes and families at the end of their work day.

Through initiatives such as the critical risk mitigation program, behavior-based safety, and other injury prevention activities, Barnes Group aims to continue eliminating or reducing hazards in the work place and preventing injuries. Since 2014, our operations have steadily reduced recordable and lost time injuries. In 2019, our President and CEO as well as our Segment Presidents continued to emphasize safety as a core value and we achieved an additional 31% reduction in lost time injuries and an additional 5% reduction in recordable injuries versus the prior year. We remain committed to the execution and implementation of our BGI HSE Standards and critical risk mitigation program. We are confident in our HSE Management systems strategy, and continue to empower and encourage employees to proactively identify and mitigate potential safety issues through Safety Committees, HSE Audits and Inspections, Gemba Walks and our near miss program.



In 2019, more than 60% of
our manufacturing facilities
worked the entire
year without a lost time injury.



Waste Management

At Barnes, our operations track and report waste generation data using a common online system according to the framework established in our corporate environmental standards. Centralized reporting of both non-recycled and recycled industrial process wastes began in 2014 and enables us to identify pollution prevention and waste minimization opportunities, as well as to drive towards recycling a greater percentage of our industrial waste streams. Using this system, we have been able to track progress across the Company. While recycling is good, we recognize that waste reduction at the source is even better. This year, a number of our divisions took steps to minimize waste generation at the process level, increase resource efficiency and reduce single-use waste.

Our Engineered Components' Associated Spring Asia facility in Singapore revised its part-cleaning process to include an ultrasonic machine. The previous manual method required disposal of the hydrocarbon solvent after just a few wash cycles. With the new machine, the solvent can be filtered and recycled many more times. The gains in efficiency have resulted in a significant decrease in the volume of solvent used per part.

Engineered Components' Heinz Hänggi division in Bettlach, Switzerland installed three 1000 kg containers for deburring fluid. These large, reusable containers, which are returned to the distributor to be washed and refilled, replace the small disposable canisters that the facility previously used. This change will prevent 1,920 canisters from entering a landfill each year.






Water Conservation

Barnes Group operations have been tracking water usage data for many years now, and we are pleased to report that our divisions successfully implemented or expanded their water conservation projects in 2019 to further reduce water consumption. Some of the water conservation initiatives implemented include:

Recognizing the region's classification as a high water stress area, our Associated Spring Mexico City division continued to work to further reduce its water use in 2019. This year, the division switched to a low-water alternative for cleaning company vehicles. The new method uses a waterless, biodegradable cleaning spray and is expected to decrease the facility's water use by tens of thousands of liters annually.

Our Molding Solutions, Männer division in Bahlingen, Germany had used ground water for cooling the facility and equipment in Plant III for many years. However, the ground water temperature has continuously increased in recent years, causing the facility to withdraw more groundwater and the temperature of the final discharge waters to increase. These conditions posed risks to the safe and efficient operation of our production and test center, as well as significant challenges to meet the regulatory requirements within our water permit. To remedy these issues, the facility invested €1 million to install a comprehensive cooling technology solution. While the old system was a heat exchanger model totally dependent on groundwater for heating and cooling, the new design uses advanced refrigeration systems for cooling and a minimal amount of groundwater exclusively for heating purposes. The new system assures compliance with our water permit and reduces the amount of groundwater withdrawn annually by more than 90%.



Energy Conservation

Since we began requiring our operations to track and report energy usage six years ago, our divisions have continually demonstrated their commitment to energy conservation. This year, multiple facilities expanded their use of energy-efficient LED lighting and motion-sensors. Our Force & Motion Control division in Brecksville, Ohio finished a complete conversion to LED, replacing a total of 356 fluorescent light fixtures. The project, which began in fall of 2018, is expected to reduce the division's energy use by 28% and save more than \$30,000 annually. Barnes Aerospace's East Granby, Connecticut division also replaced all of the fluorescent lights in its 38,000 ft² production area with LEDs, which is projected to save 197,208 kWh and over \$25,000 in energy costs each year.

Other divisions have achieved climate-conscious energy reductions through different means:

- Molding Solutions' FOBOHA division in Haslach, Germany recently updated the cooling system for its soft- and hard-machining department. The new system uses 40% less energy and has eliminated the equivalent of an estimated 48 metric tons of carbon dioxide emissions.
- Force & Motion Control's division in Mitcham, United Kingdom also made changes to the cooling system for part of its facility. Instead of using traditional air-conditioning, Mitcham installed evaporative cooling. Evaporative systems use water's high heat capacity to lower a building's temperature, similar to how perspiration cools the body. These types of systems require no refrigerants, reduce the likelihood of sick building syndrome, and produce 87% fewer carbon emissions than traditional air conditioning.
- Barnes Aerospace's Windsor, Connecticut division replaced two rooftop HVAC units with new units that provide greater efficiency and use a refrigerant with a lower ozone-depleting potential. The units that were replaced were installed in 1981 and used R-22 refrigerant, which in accordance with the Montreal Protocol will no longer be produced in or imported to the United States starting in 2020. The new units use R410 refrigerant, which has a much lower ozone-depleting potential than R-22.



Energy Audit

Associated Spring Bristol identified and addressed two sources of energy waste: compressed air leaks and weekend heating.

Renewable Energy at Barnes Group

A number of our international locations derive all or part of their energy from renewable sources. Below are just a few highlights:

- Our Force & Motion Control division in Tranås, Sweden gets its district heating from Tranås Energy's combined heat and power plant, which only burns renewable biomass. Tranås Energy also repurposes the leftover ash as a natural fertilizer.
- Our Molding Solutions' Synventive location in Bensheim, Germany purchases its energy from the GGEW AG, 55% of which is derived from a mix of solar, wind, and hydropower.
- Our Molding Solutions' Männer, Bahlingen, Germany division also derives more than 35% of its energy from renewable sources, and Männer, Au, Switzerland derives all of its energy from hydropower.



Harnessing Solar Energy at Gimatic

Our Automation business' Gimatic division in Bagnolo Mella, Italy installed a roof top solar panel system in 2010. The system consists of an array of panels of polycrystalline silicon that can produce power for a total amount of 199 kWp (kilowatt- peak). Gimatic's partner on the project, SKY-NRG, reports that the energy produced each year exceeds 220 MWh (Megawatt hours), thus reducing the facility's environmental footprint by avoiding carbon dioxide emissions associated with other power generation methods. In fact, during summer months, the system produces enough energy to sell back to the provider. Since its installation, the system has avoided at least 1,302 tons of CO₂ to be released in the air. In addition, the energy produced by the system is used fully by the production operations, saving the business more than €100,000 per year after government rebates and bonuses.

In 2019, Gimatic completed a significant expansion of its production facility in Bagnolo Mella, Italy. With this growth, Gimatic installed another set of solar panels that will power up to an additional 300 kWp, allowing sustainable business growth while mitigating the impact to our environmental footprint. Both solar systems have a projected life span of at least 25 years, so the division can achieve environmental and financial benefits for years to come.





Employee Development and Engagement

At Barnes Group, we believe it is never too late to improve your lifestyle and to make the most of your health and well-being. Our wellness programs have been designed with this goal in mind – to provide tools, resources, and support for employees and their family members to adopt healthier lifestyles and create meaningful and lasting change towards their personal well-being. In addition, this helps ensure a stable workforce for the Company. We also support well-being by offering a diverse set of professional training and development programs to our employees.

Diversity and Inclusion

At Barnes Group, success begins with having a passionate and energized workforce. Barnes Group employs 5,700 employees around the globe.

U.S. Representation of Ethnic Diversity	2019
American Indian / Alaskan Native	Less than 1%
Asian	5%
Black / Not Hispanic Origin	7%
Hispanic	6%
Native Hawaiian or Other Pacific Islander	Less than 1%
Not Specified	5%
Two or More Races	1%
White / Not Hispanic Origin	75%

To help us maintain and further enrich our energized and engaged workforce, Barnes Group strives for diversity across all levels of the organization. Additionally, we look to increase women in hourly, management, and salaried leadership positions. The recruitment process is an important element in achieving a more diverse population throughout our businesses.

U.S. Representation of Women by Classification*	2019
Operatives	24%
Administrative Support Workers	24%
Craft Workers	2%
Executive/Senior-Level Officials and Managers	1%
First/Mid-Level Officials and Managers	16%
Laborers and Helpers	11%
Technicians	2%
Professionals	17%
Sales Workers	1%
Other	1%

* Represented portion of women within each category

Educational and Vocational Programs

In 2019, the company continued its focus on recruiting efforts in support of Global Apprenticeship Programs – attracting, hiring and training apprentices in various technical areas. Our Apprenticeship programs help us bolster our manufacturing skills and provide professional development and growth as well as rewarding career opportunities to technically skilled workers. We offer apprenticeship programs for a variety of roles including, but not limited to, Electrician, CNC Programmer, Maintenance and Machine Repair, Tool & Die Maker and Machinist.

Barnes' Apprenticeship Program combines on-the-job training, technical education and related classroom or online instruction that increases an apprentice's skill level and earning potential. In the United States, this registered program provides an opportunity for the apprentice to earn a "Completion of Registered Apprenticeship" certificate, which is a nationally recognized credential that validates proficiency in an occupation that values or requires an apprenticeship. Barnes Group's respected and successful Apprenticeship Program provides opportunities for individuals to earn while they learn, and develop in-demand technical knowledge and skills for today's dynamic manufacturing industry.

Apprenticeship Programs at Männer

Our Männer business locations maintain an active apprenticeship program that stretches back many decades. In a typical year, an average of 15-20 students participate in the program across several locations. Students can choose from several majors including tool maker, machine operator, process mechanic, technical product designer, mechanical engineering, plastic technology and mechatronics. Many trainees who complete their apprenticeship at Männer receive awards for achievement and excellence demonstrating the quality of training they receive. Participants in the program receive state of the art training and professional development, and nearly every participant who successfully completes the program continues employment with Männer. By providing the students of today with proper training, we are laying the foundations for future success of our businesses.



Vocational Partnerships at Strömsholmen

For several years, our Force & Motion Control (FMC) Strömsholmen division in Tranås, Sweden has stepped up its social responsibility through different educational and vocational partnerships. Together with the local labor office, Strömsholmen created an on-site education space geared towards our production facility. The space enables the team to create pathways for employment opportunities while helping the division meet its competency needs. During 2019, 15 students from varied backgrounds attended the education program for about four months. Of these, a majority entered into employment at Strömsholmen.

In addition, together with local schools, Strömsholmen has established a Student Work Practice where it continuously agrees to welcome students to our site at Strömsholmen for a few weeks. The program allows students to get a first-hand experience at a production facility which can help them with their choices for a working career in manufacturing in the future. Strömsholmen also donated CNC milling equipment to the local secondary school where students attending the school can develop a technical interest by practicing CNC-programming.

Manufacture Your Dreams at Barnes

At Barnes Group, we're strengthening our talent pipeline through strategic marketing and outreach efforts focused on recruiting the next generation of talent. Launched in 2018, our "Manufacture Your Dreams at Barnes" campaign is designed to further enhance and promote our Global Apprenticeship Programs and showcase the exciting and diverse career paths within the manufacturing industry. Through this campaign, we have developed relationships with more than 130 area high schools, vocational/technical schools, and community colleges across the United States, enabling us to educate students and faculty on manufacturing as a desirable and viable career path and allow students to learn first-hand how Barnes Group can be a potential employer of choice. The program has resulted in a 43% increase in the number of interns and co-ops in 2019 compared to the previous year.

Another part of our Manufacture Your Dreams campaign includes participation in Manufacturing Day. Manufacturing Day is an annual event held each October when North American manufacturers open their doors to showcase the potential of modern manufacturing, show their communities what they do, highlight the economic importance of manufacturing, and foster interest in manufacturing careers. Students spend their day participating in a variety of hands on and educational events focused on learning about manufacturing as a career. In 2019, over 530 students from local schools joined thirteen U.S. and one Mexico Barnes Group facilities in their regions and received a first-hand look at how products are conceptualized and manufactured via tours that covered engineering, design, quality, and all areas of the manufacturing floor. In 2019, our participation in National Manufacturing Day saw a 26% increase in student attendance compared to the prior year, enabling us to invest in, foster, and develop the skills and education of our local community workforces.





Wellness

Barnes Group is committed to improving the health and well-being of our employees and their families around the globe. Our innovative health programs support a holistic approach to well-being by providing access to comprehensive tools, information, and guidance designed to improve employee health, productivity, and engagement, making our Company a stronger and healthier place to work.

Highlight | Wellness Notable Achievements

Barnes' wellness program provides a number of ways for employees to assess their current health and wellness, and offers options for employees looking to improve, including: self-directed workshops, health assessments, and team-based wellness challenges. Financial incentives are provided for participation and achieving health outcomes.

2019 demonstrated strong employee engagement and produced positive results in the United States:

- Over 75% of our facilities hosted an on-site biometric screening event with sustained participation at an average of 48%.
- The average blood pressure of the participating population reduced by 28% in 2019.
- Our employees continued to complete health risk assessments at a sustained rate to identify potential wellness gaps in their daily lifestyle. In addition, new wellness challenges were rolled out each quarter spanning various wellness topics such as physical activity, mental well-being, sleep health, water consumption, and nutrition.



Community

At Barnes Group, we believe that being a good corporate citizen begins with being a great community leader, which is why we encourage philanthropy, compassion, and change through our Barnes Group Foundation. Founded in 1945 and funded by Barnes Group, the Barnes Group Foundation is committed to the support of education, the arts, civic and youth activities, and health-related charities in the communities in which the Company operates. Since 2000, the Foundation has supported more than 400 schools, cultural centers and health-related charities, helping to ensure a legacy of community involvement for the future.

Barnes Group Foundation

The Barnes Group Foundation is a private grant-making organization supported by Barnes Group as a vehicle for providing a balanced contribution program to accomplish the Company's objective of good corporate citizenship.

The Foundation's highest priority is organizations and projects in communities where the Company has offices and other facilities. The Foundation also makes a limited number of contributions to organizations with programs that have broad impact on the community and exhibit an innovative and resourceful approach to the solution of difficult local, national, and international problems.

Year	Total
2019	\$1,112,000
2018	\$1,119,000
2017	\$1,054,000
2016	\$1,140,000

Student Scholarship Program

The Barnes Group Foundation has established a scholarship program to assist an employee's child who plans to pursue post-secondary education in a college or vocational program. Renewable scholarships are offered each year for full-time study at any accredited post-secondary institution of the student's choice.

The scholarship program is administered by Scholarship Management Service, a department of Citizens' Scholarship Foundation of America, Inc. (CSFA). CSFA is a national nonprofit educational support and student aid service organization that seeks to involve and assist the private sector in expanding educational opportunities and encouraging educational achievement. Awards are granted without regard to race, color, creed, religion, gender, disability, or national origin. We are proud of our scholarship program and from 1976 to 2019, Barnes Group has assisted 967 students and distributed \$8,262,227.

Year	Total
2019	\$357,500
2018	\$371,500
2017	\$312,350
2016	\$292,800

Matching Gifts Program

Barnes Group provides a 2-to-1 matching gifts program for employee donations made to qualified nonprofit organizations, up to a yearly cumulative maximum of \$4,000 per employee/spouse. Qualifying organizations must be recognized as tax-exempt under Section 501(c)(3) or Section 170(c)(1) of the Internal Revenue Service Code and fit into one or more of the following categories:

- Education
- Cultural and Arts
- Civic and Youth
- Health and Welfare

Year	Total
2019	\$133,684
2018	\$141,700
2017	\$185,362
2016	\$175,769

Volunteer Action Awards

The Foundation believes it is vital to the health of every community that citizens be active in local organizations. Employees who volunteer a minimum of 30 hours to assist a local charitable organization during the year are eligible to apply for a Volunteer Action Award. Volunteer Action Awards are grants of up to \$2,000 presented to the charitable organization at which the employee has donated his/her time.

Year	Total
2019	\$3,000
2018	\$5,000
2017	\$4,000
2016	\$2,000



Charitable Giving Program

Barnes Group also supports charitable giving at our international locations through our 1-to-1 matching program. All locations are eligible for the matching gift given for employee projects that involve the entire location and support a charitable organization or project that has a positive impact on the community.

Business	2019 Total
Associated Spring Mexico	\$3,700
Associated Spring Brazil	\$10,000
Associated Spring Singapore	\$2,700
Barnes Aerospace Singapore	\$11,900

United Way Campaign

Barnes Group has a long and proud tradition of supporting the United Way through local campaigns held annually at each of our United States locations. We have earned our reputation as a great community leader, helping our neighbors in need. Through the Barnes Group Foundation, all donations made to the United Way are matched 1-to-1, increasing our total contribution.

Year	Total*
2019	\$189,058
2018	\$273,474
2017	\$266,243
2016	\$214,122

* Employee Donations

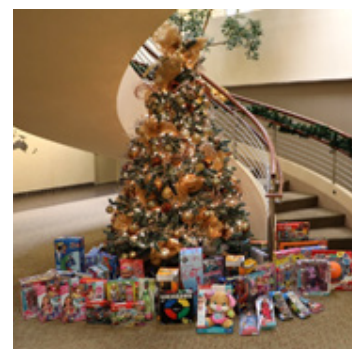


Including Matching Gifts, the Company and its employees together have contributed over \$3.2 million to the United Way over the past 7 years, assisting the United Way's more than 1,800 member organizations. For the 2018-2019 campaign, employees were encouraged to

LIVE UNITED and support their local campaigns. Living United means being a part of the change. It takes everyone in the community working together to create a brighter future.

Additional Local Efforts to Support United Way

During the 2019 holiday season, Barnes Group Bristol and Farmington employees participated in United Way's Joy of Sharing Toy Drive. United Way of West Central Connecticut's Annual Joy of Sharing Program has been providing food and toys to needy children, teens, and families in Bristol, Burlington, Plainville, and Plymouth for over seventeen years. This marked the tenth year the Corporate Offices collected new toys to donate to children ages 3 to 14 years old. During the fall, we also assisted the United Way with a "Shoe Drive." Gently worn shoes were donated. Proceeds from the sales of the shoes collected in shoe drive fundraisers are used to feed, clothe, and house local families.





Volunteering to Feed the Hungry During the Holidays

In November 2019, employee teams in Connecticut joined forces during a volunteer day with Foodshare, the largest anti-hunger organization in the greater Hartford, Connecticut area. They visited a food sorting facility in Hartford and packaged donated food from local retailers and farms. The food was then taken to mobile Foodshare sites, pantries, and meal programs to feed those struggling with hunger in the local communities.

Barnes' energetic team packaged 5,900 lbs of food that would provide 4,916 meals throughout our neighboring communities. The volunteer day was an exciting opportunity to give back and see the lasting impact on those who struggle with hunger. Additionally, at the Corporate Headquarters in Bristol, CT, the team conducted the Barnes Group annual food drive – in time for Thanksgiving and winter year-end holidays. The team was able to exceed donation expectations for the St. Vincent De Paul homeless shelter and provide enough food to last well into 2020.



International Charitable Giving Program

Associated Spring, Brazil Division employees held several events to benefit Garden School, which is dedicated to helping children in need. AS Brazil has donated their time and money to the school for the past 9 years! Additionally, since 2010, AS employees have helped 130 children through Bento Quirino Kindergarten. In 2019, AS Brazil enhanced their social project to support Creche Estrelinha do Oriente, including over 300 children in need.





Associated Spring, Mexico division employees focused their fundraising efforts for the United Way campaign by raising money for a local school, Kindergarten “Maravillas”. AS Mexico employees increased their participation in the United Way fundraising events to 70% in 2019. With their contributions and several AS Mexico volunteers, they were able to help that local school with replacing a damaged roof and fixing walls by installing panels, painting, and adding sealant to protect them from any weather damage. In addition, the Mexico team recognized and awarded those students who achieved a GPA of 3.5 or higher. Thirty students and a relative were rewarded with a trip to the movies.

Associated Spring, Singapore division employees held a shoe drive campaign and supported United Way with a reached goal of 100% employee participation! AS Singapore hosted a sports shoe drive in May, encouraging employees to give their sports shoes a second life and embracing sustainable solutions for retired items. 25 pairs of shoes were donated and will be recycled for building new jogging lanes at upcoming sport facilities. AS Singapore employees collected funds and contributed them to SUNLOVE Home, one of their focus organizations that provides residential care for 500 intellectually disabled individuals ranging in age from 22 to 75 years. Employees hosted events such as ball tossing, fruit sales, a luncheon, ring toss, and a “Tikam-Tikam” guessing game to collect donations.



Barnes Aerospace, Singapore division employees supported United Way and low-income seniors in 2019. With the SHARE program donation, a total of \$23,900 (with company 1-for-1 match) was raised, and all proceeds were donated to Community Chest Singapore. The team also took part in donating “goodie bags” consisting of food and daily necessity items to benefit Happy People Helping People, a local volunteer-led organization that provides basic needs for low-income elderly.

**Special
Olympics**
Switzerland



Engineered Components, Heinz Hänggi division employees supported Special Olympics Switzerland by sponsoring five student athletes in the games this year.

Engineered Components, Seeger-Orbis division employees held a “Fruitful Office” campaign to plant fruit trees in Africa. Fruitful Office is an organization that supplies fruit baskets to corporations that participate in the service. For every fruit basket purchased, Fruitful Office commits to planting 1 tree in Malawi, Africa. Trees are grown by schools, households and farms benefitting poor Malawian families. These trees provide fruit, firewood, and a potential source of income. Seeger-Orbis contributed in the planting of over 200 trees in 2019, in addition to making a monetary donation.



Synventive, Suzhou China division employees participated in a “Green Grant Program,” encouraging recycling and healthier living. As a regular charity activity, Synventive China’s employees are continuously supporting the “Green Grant Program” organized by WeiYe Community. Recyclable scrap paper is reclaimed and reproduced as “green pencils.” Since 2016, Synventive China has donated over 1,200 kg of scrap paper, which can produce 355,000 pencils – those pencils have been delivered to 75 Hope Primary Schools in China.



Männer Holds Food Drive to Donate to Social Services Organization

In November, Männer's employees held a fundraising event to gather food donations for Emmendinger Tafel (or Table Shop), a social services organization in Emmendingen, Germany. The Table Shop offers groceries at a discounted price to those in need. Christoph Osswald, Managing Director of Männer, stated, "Especially in the run-up to Christmas, we like to give a bit of joy and support people who are not as well-off as we are." An article about this social project and several others supported by Männer was published in their regional newspaper, Badische Zeitung.



Relay for Life

Relay for Life events are overnight community fundraising walks that honor cancer survivors, remember lost loved ones, and support the fight back against one of the globe's biggest health concerns. For 33 years, Relay for Life has provided inspiration and hope for millions of cancer survivors and caregivers. Each year, more than 4 million people in 5,200 communities in the U.S., along with additional communities in 26 other countries, gather to take part in this global movement to raise awareness and funds to fight cancer.

Barnes Group employees from our Bristol and Farmington, CT facilities worked to raise money for the American Cancer Society through the Bristol Relay for Life. Thanks to our employees' efforts, Barnes Group was the top team fundraiser at the Bristol Relay for the seventh year in a row – raising nearly \$25,000 for the American Cancer Society!



Barnes Aerospace Celebrates Another “Summer of Community”

In the summer of 2019, Barnes Aerospace (BA) rolled out its seventh annual “Summer of Community,” a series of community service initiatives involving employees across all Barnes Aerospace locations worldwide. Barnes Aerospace created the Summer of Community in 2013 to provide opportunities for their employees to volunteer in ways that would directly benefit their local and global communities. Each year, employees are encouraged to champion a cause such as hunger assistance, homelessness support, children’s causes, or relief for natural disasters.

In 2019, six Barnes Aerospace divisions reached out to the local organization(s) of their choice and lent a helping hand, supporting the following events:

The West Chester Division supported nonprofits, schools, public facilities, and low-income individuals throughout the U.S. and in developing countries through their volunteering efforts. BA West Chester employees donned clean-suits for Barnes Aerospace’s Summer of Community and spent a day in M25Ms Rainbow Paint Reblending Center blending paint, which would be provided to facilities and families who could not afford it. In addition, employees volunteered with Habitat for Humanity to build a new house for a local family.

The Singapore Division focused its efforts on once again giving back to their local elderly population by planning fun activities. Senior citizens partaking in this day enjoyed a tour of a local factory and fun times with the Singapore team.



The Windsor & East Granby Divisions partnered up with Operation Gratitude to collect wish list items for care packages to be sent to U.S. military service members, veterans, and first responders. BA Windsor & BA East Granby employees collected over 100 various consumer goods and personal care items. Operation Gratitude is a non-profit that sends over 300,000 individually addressed care packages each year to express appreciation for U.S. military personnel, first responders, and their families.

The Lansing Division engaged in a Day of Action at Tecumseh Park in Lansing, Michigan. The team assisted with chopping, pulling, raking, cutting weeds, and all-around clean up to make the park shine.

The Ogden Division held a successful children's book donation drive for their community. They collected and donated multiple books to make a difference in the lives of children who do not have access to reading materials.

The Summer of Community volunteers were proud to be part of this coordinated team effort to give back across the globe, to live our Corporate Values, and to recognize our communities as key stakeholders of our business.

Barnes Aerospace Sponsors Aces for Kids Golf Tournament

In the Spring of 2019, Barnes Aerospace sponsored the 17th annual Aces for Kids Golf Tournament. Each year, Aces for Kids brings together leaders in the aerospace community for an inspiring day of golf to benefit the Center for Cancer and Blood Disorders at Connecticut Children's Medical Center. Barnes Aerospace has sponsored this tournament for the past three years and has raised over \$250,000. The funds raised through this event are integral in providing cancer care to patients in the surrounding community and keeping their treatments close to home.

This year, 160 people attended the Aces for Kids tournament, while dozens of aerospace companies were represented by way of sponsorships, golf foursomes, and donations. Multiple Barnes Group representatives were also in attendance, including Tom Barnes, Chairman of the Board, as well as several officers and employees.





Products

At Barnes Group, we continued to make progress in 2019 on our transformational journey to position the Company as a leading global provider of engineered products and diversified industrial technologies. Ongoing key strategic investments in the Barnes Enterprise System, Innovation, and Talent Management continued to be instrumental in enabling us to achieve our goals. By leveraging the Barnes Enterprise System to “Power Performance Excellence,” our Company is excelling at selling, delivering, and realizing the value we bring to the marketplace. Part of that value proposition involves our ability to consistently deliver high-quality products to our customers.

In the last year, many of the products we delivered and the processes we used to manufacture these products embodied socially and environmentally responsible concepts and methods.

Barnes Industrial

Molding Solutions:

Our Molding Solutions strategic business unit develops plastic injection molding technology used to produce cutting-edge structural and cosmetic components that reduce vehicle mass, improve aerodynamics, and improve fuel efficiency which directly reduces vehicle emissions.

In the FOBOHA division, we engineer, develop and manufacture high-quality injection molds for the plastics industry, and have garnered international recognition for our proprietary and patented multi-component cube-mold technology. With the use of its advanced cube-mold technology, FOBOHA products not only enable significant reduction in cycle time, but also streamline the manufacture of mass-produced parts, in some cases reducing customer production cycle time significantly and generating increases in overall production.

The use of cube-mold technology represents a significant leap forward in injection molding processes which, in turn, yields substantial reductions in our customers energy consumption while directly improving the manufacturability of products made with plastic injection molding in the consumer, healthcare, packaging and automotive industries around the world.

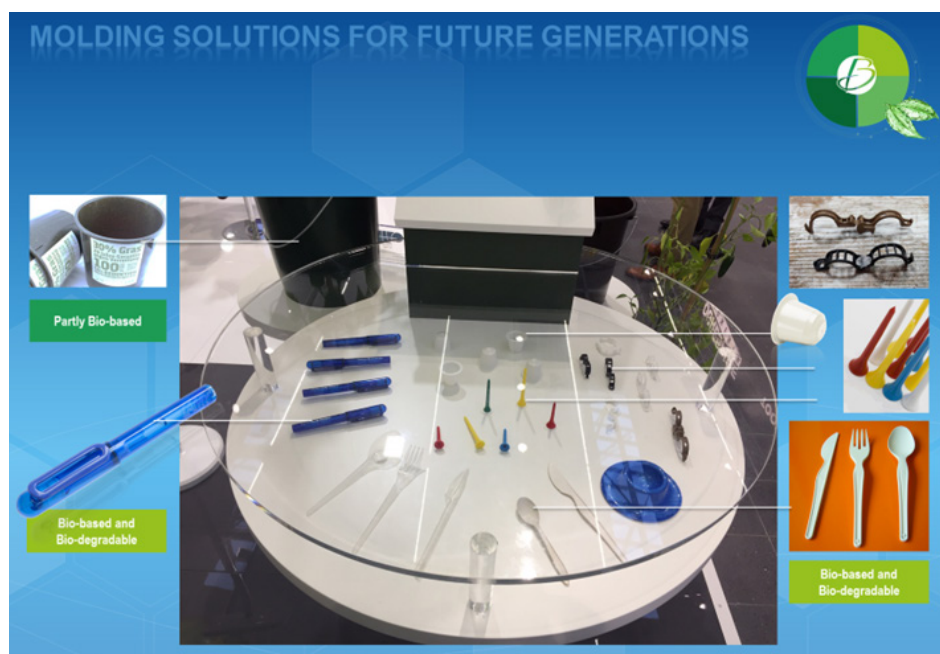
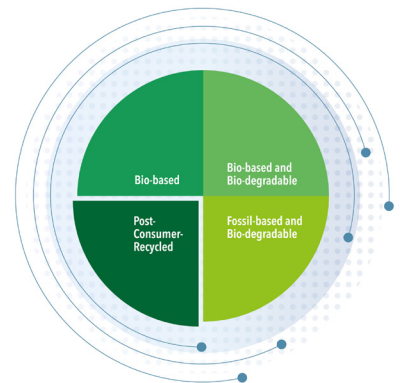
Given the growing concern around the environmental impacts of plastic waste, Molding Solutions is focusing heavily on the research and development in the processing of sustainable polymers. In partnership with leading customers and polymer material developers, Männer is using advancements in hot runner and injection molding technology to help convert new bio-based and recyclable polymers into products for its customers. In the single use packaging space, Männer’s research and development team is constantly testing new bio-based, bio-degradable and post-consumer resin (PCR) materials. With variability in developing raw materials, Männer has advanced its hot runner and molding technology and is ready to support ecologically-friendly plastic products targeted for introduction into the marketplace.

Molding Solutions exhibited at the K 2019 Trade Show in Düsseldorf, Germany, one of the world's foremost trade fairs for the latest developments and groundbreaking innovations in the plastics and rubber industry. The Molding Solutions team – FOBOHA, Gammaflux, Männer, Priamus, Synventive and Thermoplay – was focused exclusively on customer applications, and solutions were presented for the implementation of demanding customer projects in the areas of medical/pharmaceuticals, personal care, packaging, automotive and technical parts.

A huge attraction for visitors and a technology highlight for many journalists was the REVERSECUBE from FOBOHA, a counter-rotating double cube system on an Arburg molding machine that replaces several molding machines and automated assembly units with a single system.

Männer, Thermoplay and Synventive showcased the latest innovations and projects in hot runner technology in the specialist fields mentioned above. Thermoplay presented its new range of thermal gate hot runner systems, for multi-cavity molds having up to 144 cavities. The new systems deliver significant improvements in the process window, and an improved thermal profile. This contributes to a high degree of molding process reliability and consistent quality of molded parts, even at the high speeds and volumes specifically required for caps and closures, packaging and personal care applications. Synventive presented the new generation of its eGate® system for the first time at a European trade fair. The electric-drive valve gate solution is now also available for larger components and ensures complete pin movement control at each individual nozzle, thus achieving the highest performance levels for flawless surfaces and outstanding part-to-part consistency – and reducing waste for our customers.

“Environmentally friendly resins” and the “circular economy” were also a key focus of the exhibits by our Molding Solutions businesses at the K Show. A central topic in the processing of biopolymers and recycled materials is process control. The exhibits showcased the ability of our Molding Solutions business to bring together Gammaflux, an expert in temperature control systems, and Priamus, a pioneer in advanced process control systems, to effectively process many recycled bio-based and/or biodegradable materials. The exhibit also highlighted our ability to conduct efficient material test collection as well as seamlessly implement customer projects. By integrating expert knowledge for mold and hot runner technology together with its know-how in process control, Molding Solutions companies are poised to offer solutions for processing biopolymers and recyclates that will drive safety and sustainability into the future.





Force & Motion Control:

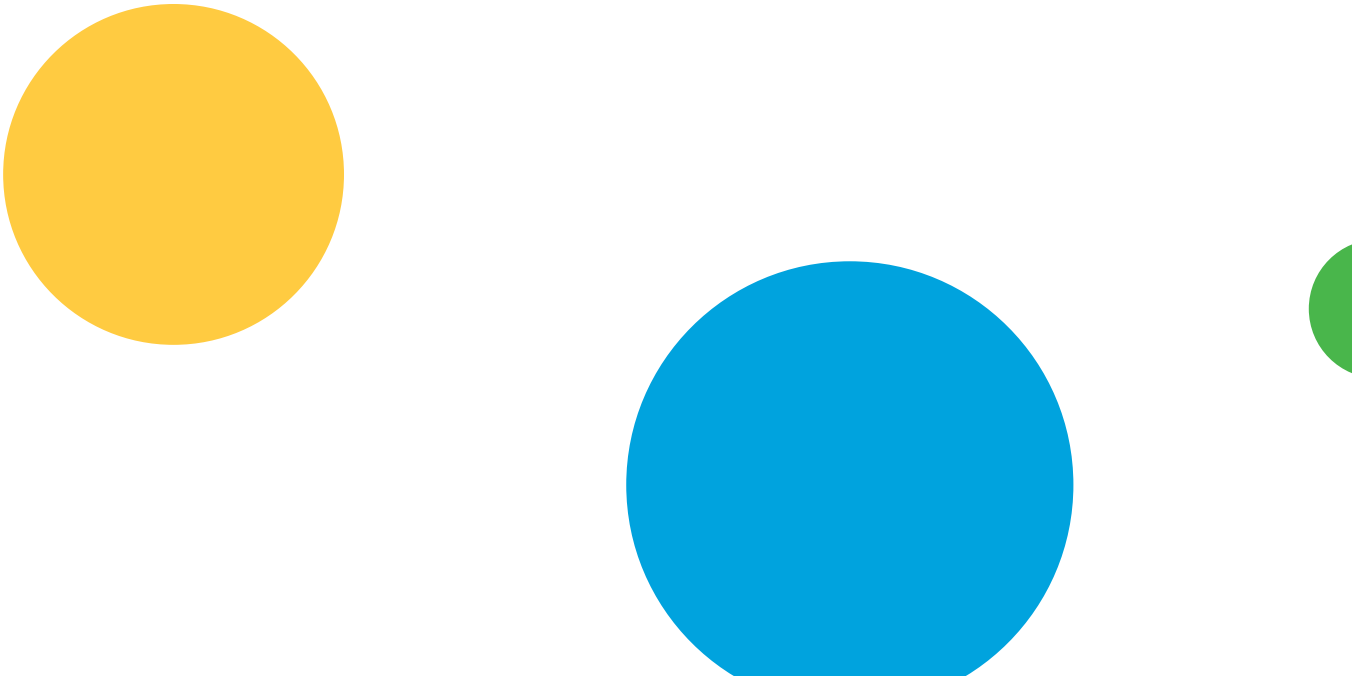
Our Force & Motion Control strategic business unit develops advanced metal and metal-alloy forming technology that allows vehicle designers and manufacturers to introduce highly complex shapes and structures, ultimately reducing vehicle weight and optimizing the use of materials. Our products and systems allow for flexible transfer of force and motion from one place to another yielding enhanced production rates and efficiencies for our customers, including those customers engaged in the manufacturing of electric vehicles.

Engineered Components:

Our Engineered Components strategic business unit offers unconventional vehicle components using advanced alloys and manufacturing principles, delivering leading engine and powertrain components to improve fuel efficiency and lead the way to vehicle electrification.

Automation

Our Automation strategic business unit designs and develops robotic grippers, advanced end-of-arm tooling systems, sensors and other automation components for intelligent robotic handling solutions and industrial automation applications in end markets such as packaging, healthcare, transportation, and food and beverage. Advancements in robotic technology are rapidly increasing the ability to accomplish more complex tasks at higher speeds and with improved control and repeatability. With greater affordability of robotics, Gimatic's customized mission-critical systems directly benefit from a large and growing global installed base of over two million industrial robots.



Barnes Aerospace

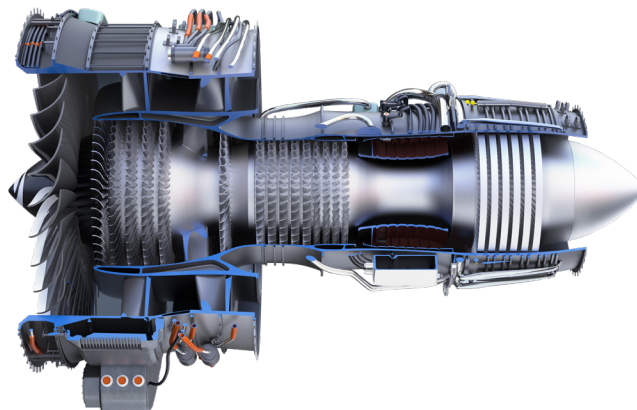
OEM:

Our Barnes Aerospace OEM strategic business unit's divisions which manufacture new components are continuing their work with our aerospace customers to introduce new component designs that will reduce the weight of the aircraft and engine parts. For airlines, reducing the weight of the aircraft or its engines, through lower-weight parts and components, drives lower fuel usage and lower carbon emissions. We have several projects focused on reducing the weight of the components without sacrificing strength, durability or safety. As an example, our Ogden facility has worked with one of our customers to implement a new design of a large structural fairing with lower weight due to new optimized support structure design and use of carbon fiber. These examples of new part design refinements will reduce part weight which will, in turn, contribute to a reduction in fuel usage for this type of airplane each year. We are proud that our employees continuously support our customers to help lower the industry's fuel usage and reduce emissions.

Our sites are also working with our customers to reduce the amount of excess raw material that is consumed in the manufacturing processes. Forgings and castings must be machined to the final part dimensions and the closer to the final part dimensions the initial forging or casting form can be, the lower the level of waste that must be recycled. Our Windsor site has partnered with a large engine OEM on several projects to implement optimized casting and forging designs which require less machining and therefore less material waste each year. Our Lansing site developed a hybrid manufacturing process utilizing our fabrication expertise along with additive manufacturing to produce a part with significantly less material waste than the traditional machining process for this engine component. We recognize the importance of working with our customers to be more efficient with our material usage as an industry and partner actively with our end customers and our raw material suppliers.

MRO:

Within the Barnes Aerospace Aftermarket strategic business unit, our divisions are focused on component repair work and collaborate closely with our engine OEM and airline customers to develop new and innovative repair methods for the various engine components that become worn as the airplane is flown. In many cases, our highly-trained MRO repair engineering teams have helped to develop approaches to repair components back to the original new component conditions instead of scrapping the worn part and replacing with a brand new part. Our new repairs reduce the waste and conserve the usage of exotic alloy metals. This year, our East Granby facility developed a new repair for a very large wide-body engine structure casing that had previously been typically scrapped by engine overhaul shops due to lack of a viable repair option. In these situations, the airline would have no choice but to purchase a new casing. Our new repairs allow this part to avoid being scrapped and avoid all the material waste associated with manufacturing a new part. These types of novel repairs provide value for our customers and also value for the environment reducing the amount of waste in material and resources.





Sustainability Contact:

For further questions or concerns
related to Barnes Group's
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