

Associated Spring Overview

A go-to-market brand of Barnes Group Inc.

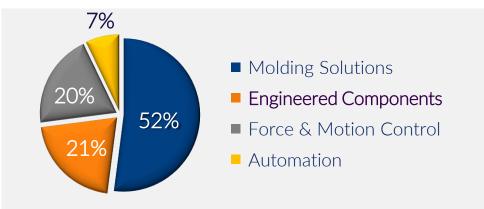


Barnes Overview

GLOBAL PROVIDER

- Highly engineered products
- Differentiated industrial technologies
- Innovative solutions serving diversified end markets

INDUSTRIAL | 68% ¹



KEY STATISTICS

Headquarters	Bristol, CT USA
Total 2020 Revenue	\$1.1B
Employees	~5,000
Dividend History ²	87 Years

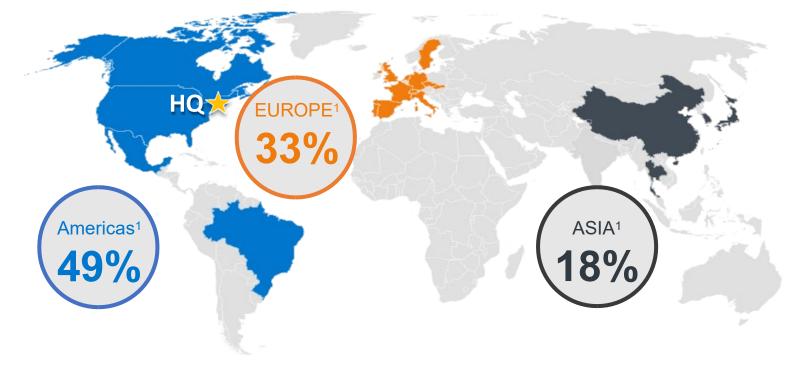
AEROSPACE | 32% ¹



Associated Spring is part of the Engineered Components SBU in the Industrial Segment of Barnes



Global Presence



LOCATIONS

	Sales & Technical Service	Manufacturing
INDUSTRIAL	59	29
AEROSPACE	3	16



Expand Footprint via Acquisitions and Globalization



Focus on Local for Local



Increase Aftermarket Services and Field Support

¹ Percent of 2020 Destination Sales. Company estimates.



Creating Superior Value - Aligned with Industry Leaders

Providing Differentiated Service through Global Network and Capabilities

Delivering Highly Valued Engineering and Manufacturing Expertise from Initial Concept to Production



















INDUSTRIAL

Engineered Solutions that Enhance Performance

Applied Research and Technical Service Centers

Active Onsite Customer Engagement

AEROSPACE

Concurrent Engineering, Complex Fabrication and Machining Expertise

OEM Certified Spare Parts and Repair Services; Life of Engine Support



Industrial Segment Overview

Leading Global Provider of Highly Engineered Systems and Solutions

AUTOMATION

Robotic grippers, vacuum cups, advanced end-of-arm tooling systems, sensors, and other automation components for intelligent robotic handling solutions.

Gimatic

7%

LEADING

CUSTOMERS

OVERVIEW

BRANDS

2020 % OF

REVENUE¹



MOLDING SOLUTIONS

Targeted portfolio of premium products and technologies serving the high-quality segments of the plastic injection molding industry.

Synventive • FOBOHA • Männer • Priamus • Gammaflux • Thermoplay

53%

Nemera

P&G









FORCE & MOTION CONTROL

Innovative solutions enabling customers to overcome challenges in metal forming, heavy duty suspension, and industrial markets.

KALLER • HYSON •
AS RAYMOND •
Industrial Gas Springs

20%

OISHI MACHINE Inc.









ENGINEERED COMPONENTS

Extensive range of manufacturing capabilities including fine blanked solutions, precision components, and assemblies for industrial applications.

Associated SpringHänggi

20%1

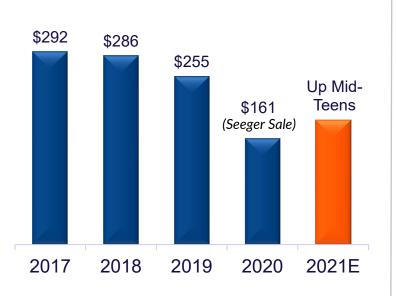


Diversified Portfolio of Market Leading Brands Serving Customers in Attractive End Markets; Associated Spring is part of the Engineered Components SBU in the Industrial Segment of Barnes



Engineered Components Overview

REVENUES (\$M)1



END MARKETS²

64% AUTO PRODUCTION

31% GENERAL INDUSTRIAL

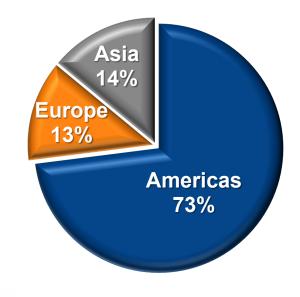
5% OTHER

2 well-respected brands:

Associated Spring

Hänggi

GEOGRAPHY²





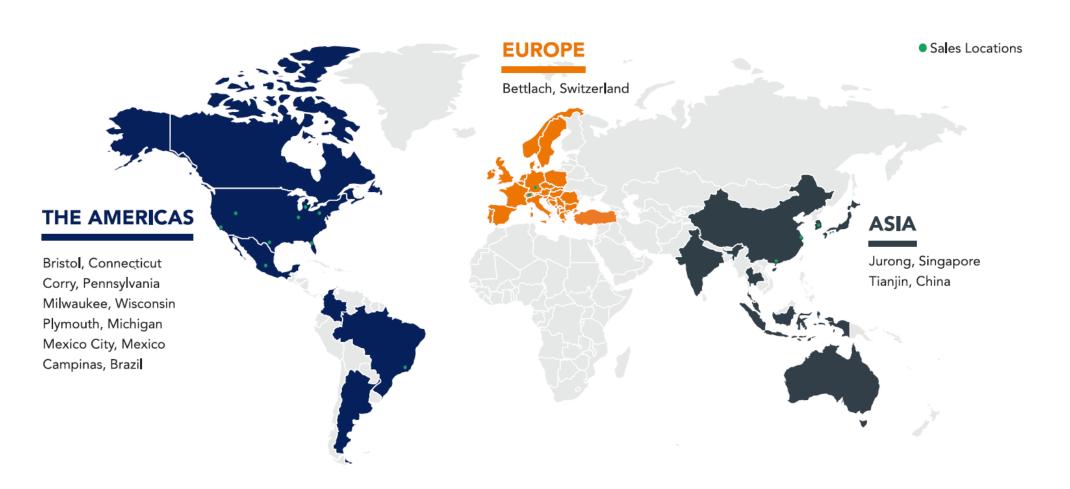






EC Global Footprint

Expansive Global Footprint Serving Medical, Aerospace, Industrial and Automotive Markets





Associated Spring Global Manufacturing and R&D

Engineering Innovative Precision Springs and Stamping Solutions since 1857



















Associated Spring Innovation & Technology Center (ITC)













Innovation & Technology Center (ITC) supports customers and Associated Spring locations worldwide with design, analysis, testing, manufacturing, quality and program management.





Associated Spring is a One Stop Shop





Associated Spring Capabilities











R&D

- Material Selection
- Finishing Processes
- Part Testing
- Assembly Support

Coiling & Spring Products

- Compression
- Torsion
- Four Slide

Wire Products & Four Slide

- Wire Form
- Accordion Spring

Stamping & Forming

- General Stampings (0.02 mm 3 mm)
- Precision Stampings
- Micro Stamping & Micro Piercing
- Micro Fine Blanking (0.5mm 6mm)

Secondary Finishing

- Tumbling
- Peening
- Polishing / Grinding
- Heat Treat internal & external
- Heat Setting
- Coating external

Assembly

- Highly Automated
- Riveting
- Welding
- Brazing (in development)
- 3-D Printing (in development)

Quality

- 100% Quality Checks
- Vision Systems
- Cycle Testing
- Material Laboratories
- ISO 9001, ISO 14001, ISO 45001
- AS9100, IATF 16949, ISO 13485





















Associated Spring Milwaukee, WI Division Overview

Quality Certifications

- AS9100D/ISO 9001:2015
- ISO 13485:2016



- Aerospace and Defense
- Space Systems
- Medical
- Automotive
- Heavy Duty Diesel
- Industrial







77,000 square feet

70 employees





Associated Spring Milwaukee, WI Division Quality

- AS9100D Certified
- ITAR/DDTC/SAM Registration
- DFARS 252.225-7009 & 252.225-7014 per AS-9102
- Cybersecurity Compliance DFARS 252.204.7012
- Robust Contract Review
- Documentation of Commerciality
- Multi-Year Record Retention
- Certifications back to Mill Source
- Directorate of Defense Trade Controls (D.D.T.C.)
 Registered
- First Article Inspection Reports per AS9102

- System for Award Management (S.A.M.) Registered
- Prime contractor access through Exostar website
- Prime contractor access to Approved Supplier Lists (A.S.L.)
- NADCAP Certified
- Export compliance program supporting International Traffic in Arms Regulation (ITAR) and Export Administration Regulation (EAR)
- More info on our website





Competitive Advantages: Aerospace and Defense, Space

- Use of Exotic Materials:
 - Inconel, Elgiloy, MP35N, Molybdenum, Titanium
- Custom manufacturing
- AS9100D Certified
- Made in U.S.A.
- Low MOQs (minimum order quantities)
- Pursuing Cybersecurity Maturity Model
 Certification (CMMC) 2.0 certification

Other Material Types:		
Chrome Vanadium	Chrome Silicon	Stainless Steel
Beryllium Copper	Phosphor Bronze	Brass





Associated Spring Product Samples



Compression Springs



Torsion Springs/Torque Coils



Arcuate Spring



Wire Forms



Extension Springs



Flat Coil/Power Springs



Curved Washers



Wave Washers



Associated Spring Product Samples



Retaining Rings/Snap Rings



Flat Springs



Multi-Slide Components



Constant Force Springs



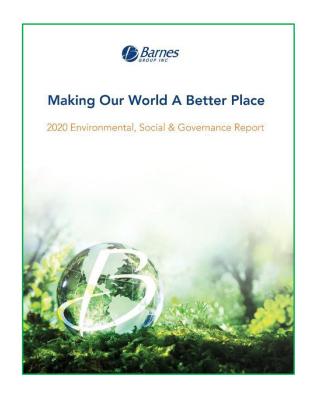
Belleville Washers



Assemblies



Commitment to Corporate Responsibility



- ✓ Since the launch of our first ESG (Environment, Social & Governance) report in 2014, Barnes has sought to identify and implement processes, policies, and products that benefit our stakeholders, the environment, and society.
- ✓ Barnes is committed to corporate accountability and furthering environmental, social and governance principles as evidenced by our listing as one of America's Most Responsible Companies by Newsweek.
- We believe this is central to our success as a responsible and environmentally friendly organization.
- ✓ Supplier quality awards from GM, Honda and Borg Warner in 2021



