

Associated Spring Company Overview 2025





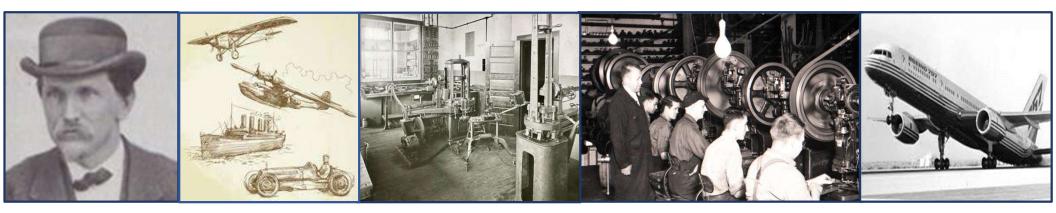






The Associated Spring Legacy

1857



2025



168 Years of Innovation and Excellence in Quality











Ownership and Brands

One Equity •

Associated Spring US, LLC









- OEP has \$12.5B invested in companies present in the Industrial, Healthcare and Technology markets
- Associated Spring owns five strong brands for different segments



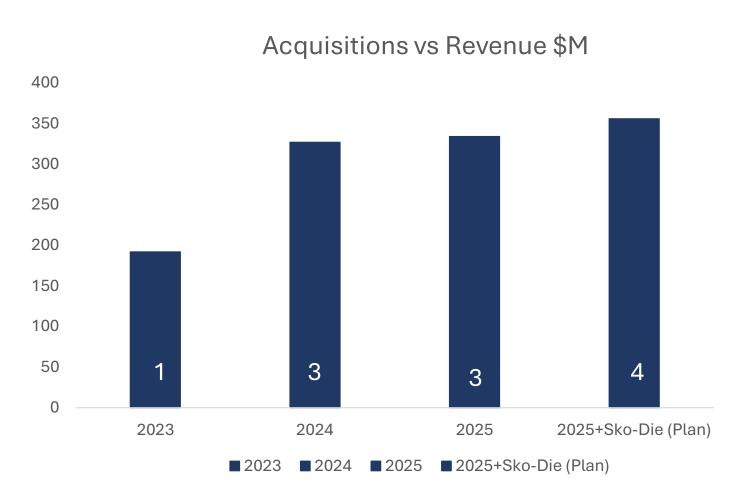








Growth Path (Organic + Inorganic)



Leading global company in precision springs and metal stamping which Vision: can create value for our customers in the Automotive, Medical, Aerospace, Defense, and Industrial segments





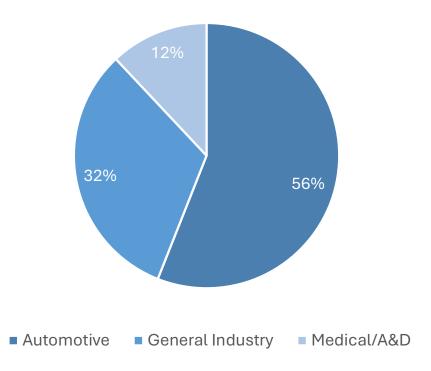




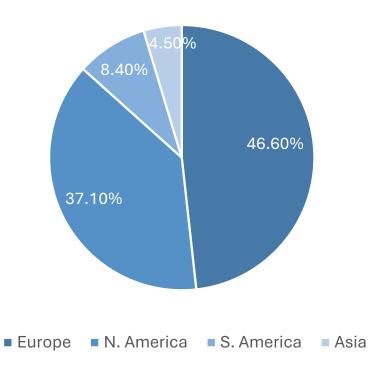


Sales and Mix Outlook

Revenue Per Segment 2025



Revenue Per Region 2025



- Implement strategies to increase our position in Industrial, Medical and A&D markets - organically and inorganically
- Leverage our position in Auto BEV and HEV
- Focus on highly engineered products which demand strong technical capabilities











Associated Spring US, LLC. current global footprint

World Class Innovation, Quality and Customer Excellence Global precision, local expertise











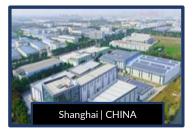






















Synergies through M&A

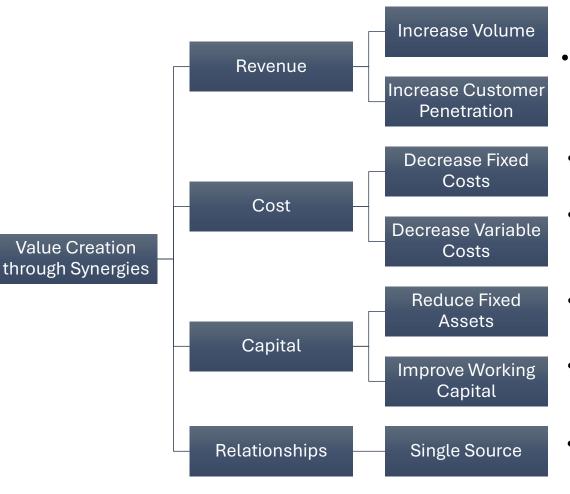








Other M&A Targets



- Expanded product portfolio and/or positioning
- Elimination of redundant processes, fixed capital & personnel
- Optimization of supply chain, efficiencies through scale
- Improved utilization, IT
- Renegotiation of Terms Suppliers & Lenders
- Established customer supplier status
- Talent & Expertise

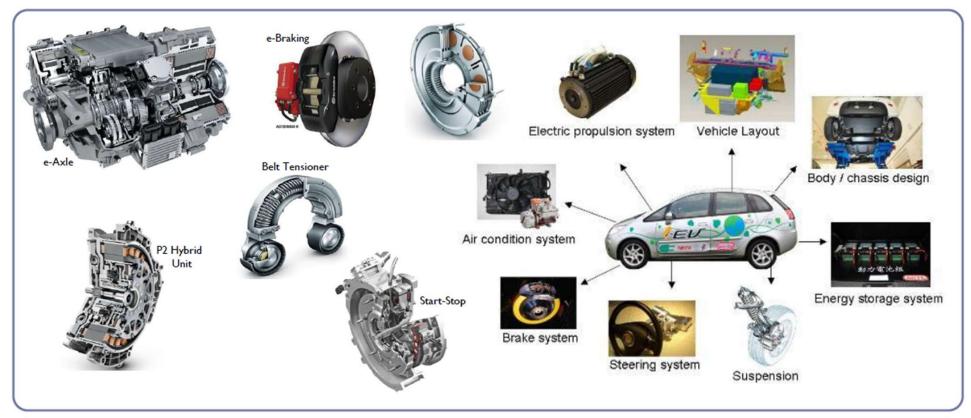








Broad Portfolio For The Automotive Segment















Broad Portfolio For The Aerospace Segment

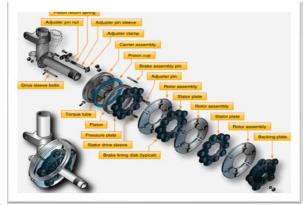
- · Engine Feed Switch
- Pressure Switches
- APU Transfer Switch
- Fuel Temperature Switches
- Entry Doors
- Cargo Doors
- Landing Gear
- Actuators
- Hinges

- Tail Fin Springs
- Sabot Springs
- **Machined Springs**
- Seats
- Seat Back Recline
- Leg Rest Extension
- Seat Pan Articulation
- Jump Seat
- Divan (Couch)
- Wheel & Brake





















Broad Portfolio For The Medical Market

Our specialized springs and expertise provide a distinct advantage to our medical industry customers by recognizing the critical importance of precision, reliability, and biocompatibility in lifesaving devices.

Associated Spring products can be found in devices throughout the operating room, or in managed care applications.

- Power springs
- Compression springs
- Micro coils
- · Fine blanking
- Micro stamping
- Reed valves
- Wire forms
- Conventional stampings
- Torsion springs
- Electrical connectors
- Deep draw ECG studs



















Broad Portfolio For The Industrial Market

Our specialized springs and technical expertise deliver a unique advantage to our industrial customers by addressing the critical need for durability, precision, and performance in demanding applications.

Associated Spring products are engineered and manufactured to ensure decades of reliability in demanding applications





- Engine valve springs
- Transmission springs
- Fuel injector springs
- Oil pump springs
- Compressor reed valves
- Pressure relief valves
- Suspension springs
- **Engineered stampings**
- Belleville washers
- Retaining rings
- Belt tensioner extension springs















Associated Spring Products and End Markets



OUR CAPABILITIES

R&D

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

Wire Products

- Compression
- Extension
- Torsion
- Micro Coiled
- Four Slide
- Wire Form

Flat Coil Products

- General Stampings $(0.02 \, \text{mm} - 3 \, \text{mm})$
- Precision Stampings
- Spring Washers
- Micro Stamping
- Accordion Spring

INDUSTRIES SERVED



Aerospace & Defense







Recreation & Power Sports

PRODUCT RANGE



COMPRESSION SPRINGS



TORSION SPRINGS



ACUATE SPRINGS



WIREFORMS



EXTENSION SPRINGS



POWER SPRINGS



CURVED WASHERS



WAVE WASHERS



RETAINING RINGS



FLAT SPRINGS



FOUR SLIDE COMPONENTS



FORCE SPRINGS



STAMPINGS



BELLEVIELLE WASHERS



CLUTCH SPRING PACK











Hänggi: High Engineered Precision Stamped Parts



Development Systems

- Co-Create Drafting (ME10)
- Co-Create Modeling
- P-Cam (Erosion)
- Mastercam (CNC)
- FEM Simulation

R&D

- Material Selection
- Part Testing
- Assembly Support

Coil Products

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

INDUSTRIES SERVED



PRODUCT RANGE



PUNCHING

MICRO STAMPING

FINE BLANKING

MEDICAL APPLICATIONS





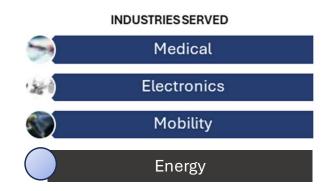




AH Metal: Leading developer & manufacturer of customized, precision stamped & deep drawn components



Our Capabilities Prototyping Stamping & Forming Material Selection Precision Stampings Manufacturing considerations Micro Stamping Assembly Support •Deep Draw Packaging Support



PRODUCT RANGE



Electrical Connectors











Hearing Aids

Micro Stamping

Deep Draw

Stampings High Volume Production











E. Winkemann: Leading manufacturer of precision stamped parts





INDUSTRIES SERVED



PRODUCT RANGE













Gearbox Applications

Engine & EV Applications

Adjusting Washers

Chassis Applications











Sko-Die: Industry Leading Stamped / Fine Blanked / Laser Cut Components



Our Capabilities Prototyping •Tool Shop Stamping •5 to 440 Ton Fine Blanking •160 to 250 Ton Stamping Welding

Medical Aerospace & Defense General Industrial Mobility Power Generation

PRODUCT RANGE















Electric Motor Laminations

Heavy Gage Stampings

Fineblank Components

Consumer Products

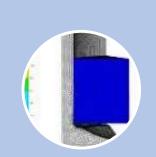








One Stop Shop – Innovation to Production



Research, **Engineering &** Simulation



Prototyping



Tool **Development** and **Manufacturing**



In-house **Equipment Development &** Construction



Part Production, Cleaning, 100% Inspection



Assembly Content/Joining of Parts

One Stop Shop











State Of The Art Facilities Fully Certified













































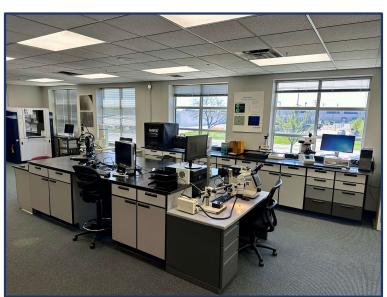


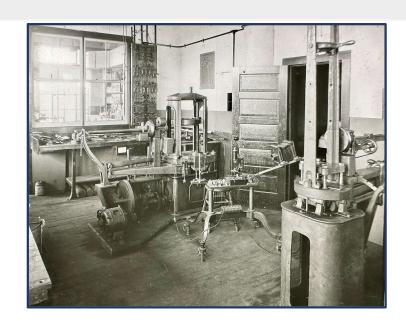


Advanced Engineering Laboratory

AS R&D Lab First Established in Detroit, 1926

The Advanced Engineering Laboratory is located at the Milwaukee, WI facility and supports Associated Spring customers and locations worldwide with design, analysis, testing, manufacturing, quality and program management.



















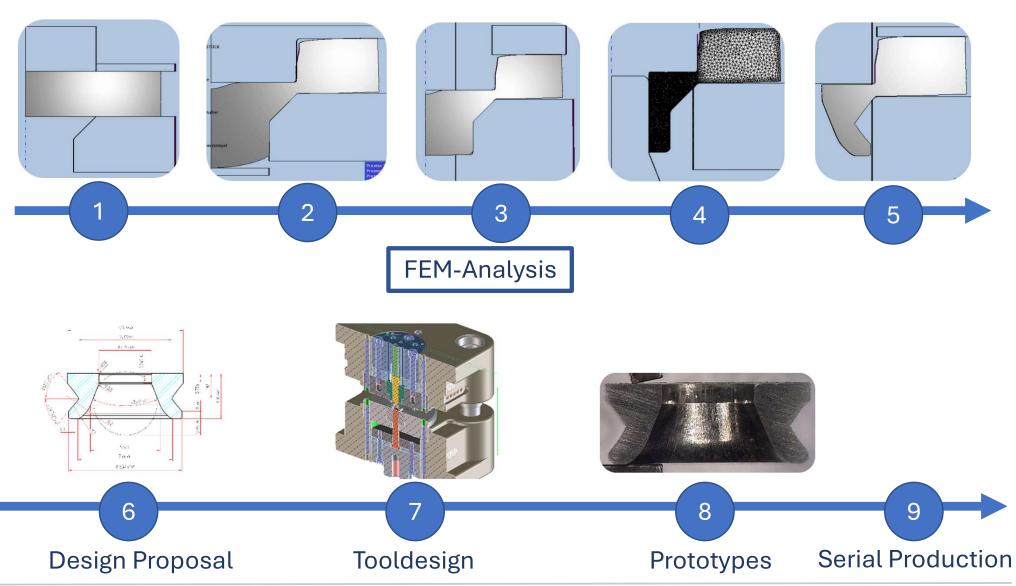






FEM Simulation

Firing Unit for Epinephrine Auto-Injector





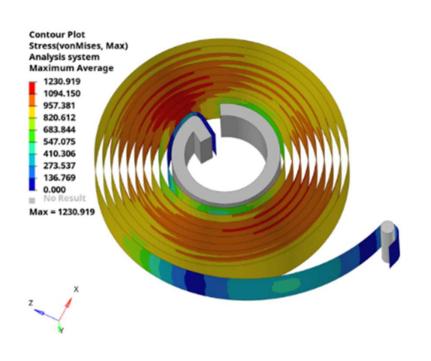




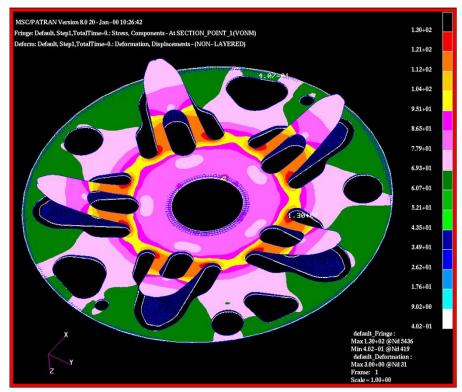


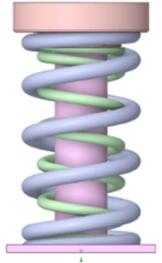


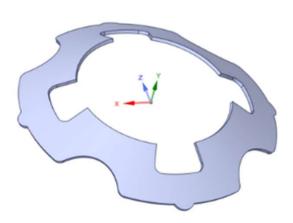
Design Analysis & Computer Simulation

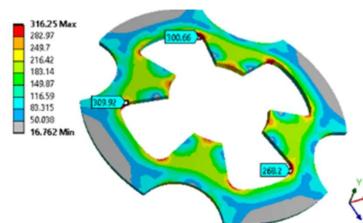


Applied displacement x Stress analysis



















Key Customers













































Carestream



































