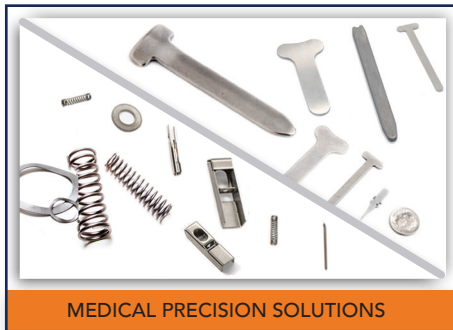




AEROSPACE & DEFENSE

With a deep understanding of Aerospace & Defense precision requirements, we expertly engineer & manufacture components for critical applications. These include commercial & military aviation, satellite systems, space vehicles & missiles. We can meet AS9100 Certification and DFARS as needed.



MEDICAL PRECISION SOLUTIONS

Our medical custom engineered solutions include surgical, X-ray, optical and other custom applications. We also make innovative components such as springs, implantable bone plates, sampling needles and micro-stampings for medical and surgical suturing devices.



OTHER CUSTOM MEDICAL SOLUTIONS

Our cutting edge micro-fine blanking and micro-stamping technologies are empowering new generations of medical devices. Our precision engineered components (measured in microns) are custom designed for several industry leading customers (e.g. diabetic CGM, implantables, etc.).



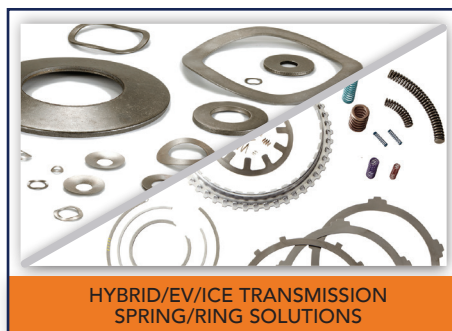
FUEL SYSTEM SOLUTIONS

In addition to fuel system springs, we are a global leader in Gasoline Direct Injector (GDI) component technologies. Our superior Fuel delivery performance is achieved using our advanced innovative processes for optimized flow hole characteristics meeting critical tolerances with cost/throughput advantages vs: Laser drilling/EDM etc.



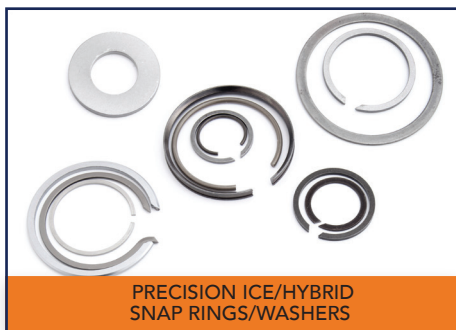
MICRO PRECISION FINE BLANKING/  
PROGRESSIVE STAMPINGS

Our Hänggi brand specializes in fine-blanked and progressive stamping solutions. We provide competitive advantage over machined components with superior quality and finish. Our solutions span a multitude of industries in a variety of materials and thicknesses.



HYBRID/EV/ICE TRANSMISSION  
SPRING/RING SOLUTIONS

Our Hybrid/EV/ICE automotive transmission springs are engineered & produced using the latest materials & state-of-the-art manufacturing processes. This technology supports modern, high efficiency, fuel saving transmission designs, optimizing performance & lifecycle costs.



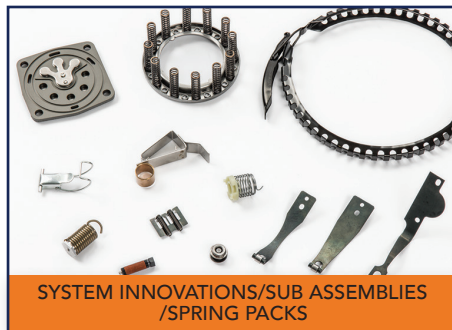
PRECISION ICE/HYBRID  
SNAP RINGS/WASHERS

We engineer & manufacture world class snap rings & washers that function to locate & retain mating parts on shafts or in housings. This enables an ease of assembly, accuracy of positioning & superior performance for automotive & industrial applications.



COMPRESSOR COMPONENTS

As a global leader in the design & manufacture of precision engineered flapper & reed valves for both automotive & industrial HVAC & refrigeration, our experience in patented product & process innovations provides a competitive advantage to our customers.



SYSTEM INNOVATIONS/SUB ASSEMBLIES  
/SPRING PACKS

Our world-class capabilities encompass designing, engineering & assembling parts into sub-assemblies, spring packs & system innovations. We provide unrivaled service & turnkey convenience: design to assembly/testing/packaging/JIT.



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AssociatedSpring@asbg.com



HANGGI.COM  
info@hanggi.com





**ENGINEERED COMPONENTS**



A business of BARNES GROUP INC

World Class Leader in Automotive Engineered Spring and Stamping Solutions

[asbg.com](http://asbg.com)



A business of BARNES GROUP INC

World Class Leader in Industrial Engineered Spring and Stamping Solutions

[asbg.com](http://asbg.com)

*Precision Engineered Solutions*

*Innovation and Technology*



● = EC GLOBAL LOCATIONS

*One Team. One Company.*

*Expansive Global Footprint*



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Industry Pioneer in Automotive Microstamping, Fineblanking and Micro Cold Formed Solutions

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