



Solutions for high productivity and precision Gears

Since 1919, following an almost 100-year old history of making small gears and pinions for Swiss watchmakers, Affolter Technologies SA is manufacturing technologically advanced high-precision Gear Hobbing machines for small and micro-gear customers.

Gear Industry

Affolter Technologies develops and manufactures CNC Gear Hobbing machines. It is tailored to the needs of all small and micro motor industries, such as automotive, aircraft, servo motor, dental and medical equipment, including gears and pinions for watchmaking.

The Affolter machines can cut spur, helical, frontal, bevel, shaft, face, crown gears and worm screws.

"Affolter's CNC Gear Hobbing machines is a compact, precise, and productive machine concept. Power, stiffness, and precision combined

with universal applicability provide a means of manufacturing complex parts at the cutting edge of technology. From standard products to custom-made developments, it encompasses the full range of expertise in very stringent fields." explains Mikael Affolter, Head of Sales.

The machines are all equipped with the in-house developed Affolter Leste CNC control, specifically designed for handling up to 12 axes.

Different automation systems for part loading and unloading are available, such as

universal grippers, drum loader or robot loading as well as options such as deburring, dry cutting, centering microscope and oil mist aspiration. The new loader system AF71 with two grippers ensures 24 hours automatic production. While a gear is in the hobbing process, the other gripper already reaches out for the next part to be loaded.

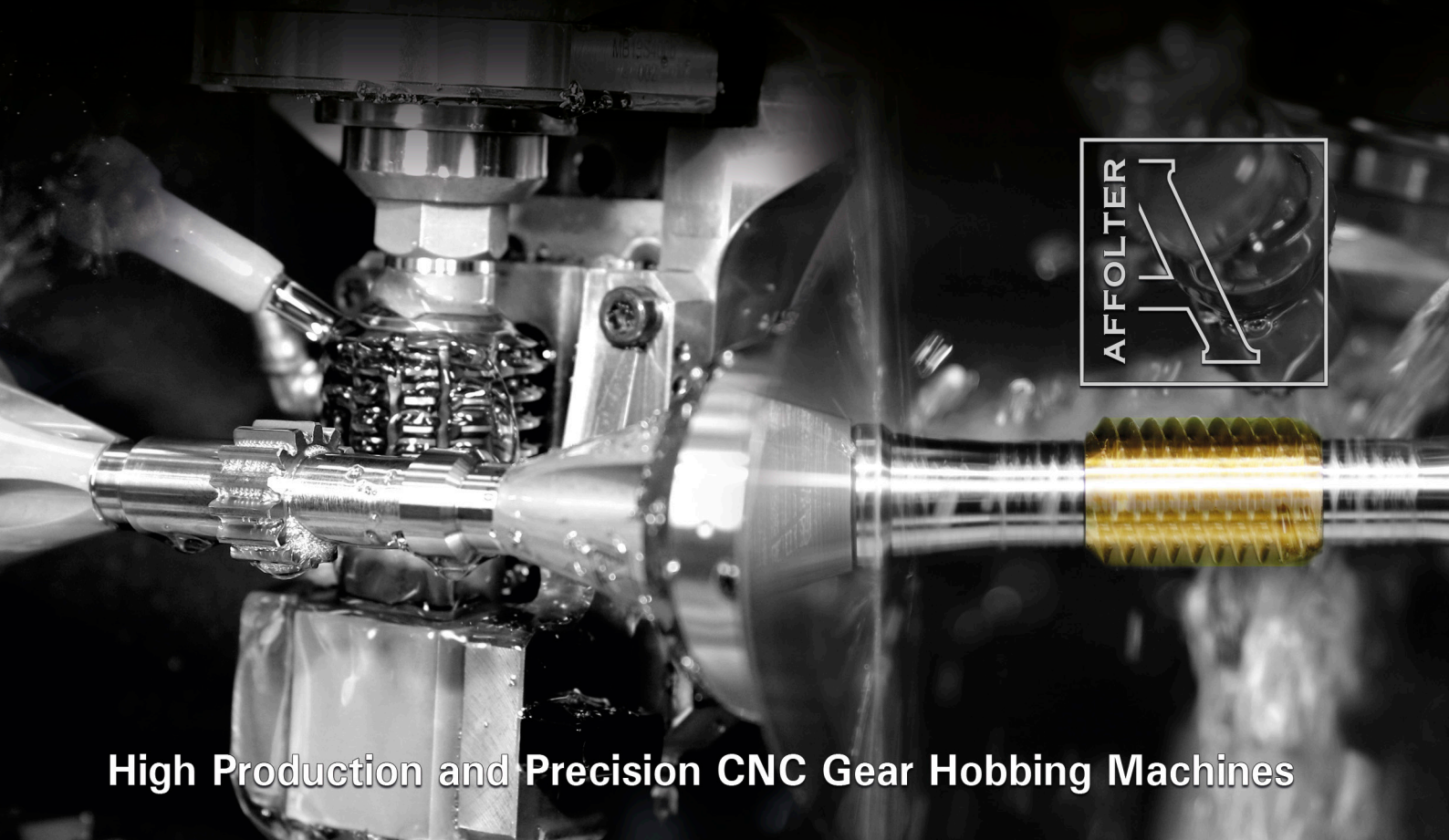


Worm Screw Process

Affolter Technologies recently introduced the innovative Worm Screw Skiving Process. The idea behind

- CNC Axis up to 12
- Max. Module 1.5 mm
- Max. Cutting Length 90 mm
- Max Part Diameter 60 mm





High Production and Precision CNC Gear Hobbing Machines

Tradition meets innovation

it: Unlike in worm hobbing, where the hob turns much faster than the workpiece, the Affolter engineers inverted the process. “The workpiece turns extremely fast, with a work spindle up to 12,000rpm, while the cutter turns much slower. Only our technologically advanced machines can reach such speeds and at the same time provide the necessary stiffness”, says Vincent Affolter, Managing Director.

Fast, ergonomic and environmentally friendly

In addition to precision and rigidity, Affolter’s CNC Gear Hobbing machines are fast, ergonomic, and environmentally friendly with an integrated protective working area, containing oil mist and reducing noise. The company ensures service and flexibility to suit each customer’s needs through customization of mechanical components, digital controls, and software.

Affolter Technologies SA

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“We are convinced that the Affolter product offers great machines for customers that are already making gears or for customers that are considering making gears. The simplicity of these machines is remarkable. The user-friendly control with step-by-step and easy-to-follow functions will simplify the gear-making process. With a relatively small investment, you can keep know-how and technology in-house” says Ivo Straessle, President of Rotec Tools our USA representative.

Almost 100 years of know-how

Affolter is a fourth-generation family company. Affolter Technologies SA is a part of the Affolter Group with more than 160 employees around the globe and was founded in 1919 by Louis Affolter in Malleray, Switzerland.

A daughter company was founded in China, Shanghai in 2013, Affolter China Co., Ltd.

“Our objective has always been to manufacture in Switzerland and sell in China, to provide our customers with products of the highest possible quality and performance standards”, emphasizes Libin Yin, General Manager of Affolter China.

Affolter Technologies operates worldwide with a broad network of distributors from Europe to Asia-Pacific and USA.

ISO Certified and AGMA Member

Affolter is ISO 9001:2008 certified and a member of industry associations including the Federation of Swiss Watch Industry (FH) and Swissmem: the Swiss association of mechanical and electrical engineering industries.

Affolter Technologies is a member of the American Gear Manufacturers Association (AGMA).

