

## Affolter showcases innovative gear hobbing solutions at IMTS

Affolter Technologies, world technology leader in high precision micro gear hobbing, aims for growth in the U.S. automotive market, offering state-of-the-art micro gear hobbing and worm screw power skiving (WSPS) solutions.

At the IMTS trade show in Chicago, Affolter, in partnership with its representative Rotec Tools, will showcase the fully automated gear hobbing center Affolter AF110 plus at Booth #237223.

The AF110 plus is designed to maximize the productivity of manufacturers of small gears in the automotive, aerospace, and medical equipment industries.

Small gears and metal parts are used in all kinds of daily products; billions of gears are manufactured all around the world. The automotive industry is no different: In one luxury car, up to 50 small high-precision gears and worms are used – from the electric car seat all the way to the trunk.

“U.S. manufacturers in the automotive industry produce a high number of such micro gears. Reduced cycle times are the key to optimized overall productivity, while at the same time manufacturers must ensure highest precision and quality,” said Vincent Affolter, managing director of Affolter Technologies.

The AF110 plus is the most advanced machine offered by Affolter Technologies. It convinces with its versatility, precision, power, rigidity, and ease of use.

The AF110 plus has eight axes, a cutter-spindle speed of up to 12,000 rpm capable to make gears with a maximum DP17 and minimum of DP1270. 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 loader system AF71 with two grippers ensures 24 hours automatic production,” Affolter said. “While a gear is in the hobbing process, the other gripper already reaches out for the next part to load.”

The AF110 plus can cut spur, helical, frontal, bevel, and crown gears.

Worm Screw Power Skiving, a cutting-edge technology developed by the Affolter engineers, is available as an option.

The idea behind it: Unlike in worm hobbing, where the hob turns much faster than



The Swiss company Affolter Technology is world market leader in high-precision micro gear hobbing. At IMTS, Affolter showcases the Affolter AF110 plus. (Courtesy: Affolter Technologies SA)

the workpiece, the Affolter engineers inverted the process.

“The workpiece turns extremely fast, with two new spindles up to 12,000 rpm, while

the cutter turns much slower. Only highly advanced machines can reach such speeds and at the same time provide the necessary stiffness,” Affolter said.

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WSPS allows manufacturers to finish a high-precision worm in only 6 seconds — four times faster than the traditional worm hobbing.

“Manufacturers of a high volume of worms will greatly benefit from this new process and improve their productivity significantly,” Affolter said.

The WSPS technology focuses on small worms with a module up to 17 DP.

Affolter Technologies, a traditional Swiss family company founded in 1919, has been active in the U.S. market since 2008 and continues to expand.

In 2016, Affolter became a member of the American Gear Manufacturers Association (AGMA). Affolter has established a distribution network with contacts worldwide and is represented in North America by Rotec Tools Ltd., which offers sales, service, and parts support.

“The Affolter gear hobbing machines offer customers a production machine with high precision and efficiency” said Ivo Straessle, president of Rotec Tools. “The simplicity of these machines is remarkable. The user-friendly controls with step-by-step and easy-to-follow functions will simplify the

gear-making process. With a relatively small investment, customers can keep know-how and technology in-house.”

**MORE INFO** [www.affoltergroup.ch](http://www.affoltergroup.ch)

## Cold Jet to give dry-ice cleaning demonstrations during IMTS

Cold Jet®, the world leader in developing high-performance dry-ice cleaning solutions is providing dry-ice cleaning demonstrations at Booth 237213 at IMTS. The demos use Cold Jet’s i MicroClean, which showcases the innovative dry-ice blasting technology, which is a non-abrasive, non-conductive cleaning method that is fast, delicate, and does not use chemicals or solvents.

Dry-ice cleaning uses recycled CO<sub>2</sub> in the form of solid dry ice pellets that are accelerated by compressed air through high-velocity nozzles onto the surface being cleaned. Through the combination of the kinetic and thermal effects, the bond between the contaminant and the surface is



Dry-ice cleaning allows items to be cleaned in place without disassembly. (Courtesy: Cold Jet®)

broken, thus cleaning the substrate. The dry ice pellets sublime (return to their gaseous state) upon contact and expand 800 times to flush the contaminant from the surface.

Dry-ice cleaning allows items to be cleaned in place without disassembly and is used to remove production residues, release agents, contaminants, paints, oils, and bio-films and can be used for many general cleaning applications. It provides a quick,



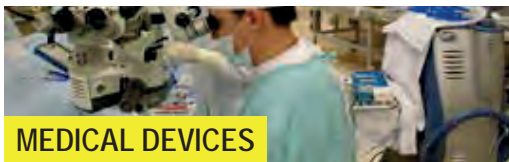
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