



IMTS Preview: Affolter Technologies

They are everywhere: 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”, explains Vincent Affolter, managing director of Affolter Technologies.

Key market USA

Affolter sees the U.S. automotive market as a key market for growth. At the International Manufacturing Technology Show IMTS in Chicago from September 10-15, Affolter, in partnership with its U.S. representative Rotec Tools, will showcase the innovative gear hobbing center AF110 plus (**Booth Number 237223**).

The AF110 plus is the most advanced machine offered by Affolter Technologies. It offers 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. While a gear is in the hobbing process, the other gripper already reaches out for the next part to load,” Affolter said.

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

WSPS: Extremely Fast Process

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 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 provide the necessary stiffness,” said Affolter. WSPS allows manufacturers to finish a high-precision worm in only 6 seconds – four times faster than the traditional worm hobb of a high volume of worms will greatly benefit from this new process and improve their productivity significantly.” The WSPS technology focuses on small worms with a module

Expanding in the USA

Affolter Technologies, a traditional Swiss family company founded in 1919, has been active in the U.S. market since 2008 and expanding continuously. In 2016, Affolter became American Gear Manufacturers Association (AGMA). Affolter has established a distribution network with contacts worldwide and is represented in North America by Rotec Tool sales, service, and parts support.

“The Affolter gear hobbing machines offer customers a production machine with high precision and efficiency” says Ivo Straessle, president of Rotec Tools. “The simplicity of t



At IMTS, Affolter showcases the Affolter AF110
source: Affolter Technologies SA)