ISSUE FOCUS

Motion + Power Technology Expo Preview

FINITE ELEMENT ANALYSIS FOR STRAIN WAVE GEAR TOOTH SURFACES DESIGN AND MODIFICATION

COMPANY PROFILE

JTEKT TOYODA AMERICAS CORPORATION
Affolter Group: Four generations, 100 years of know-how

In 1919, Louis Affolter, the second child of watchmakers Samuel and Marie-Louise Affolter, founded his own company and started to produce gears and pivots for the Swiss watch manufacturers in the area. 100 years later, nine Affolter family members work in the high-tech enterprise Affolter Group and its daughter companies Affolter Technologies and Affolter Pignons.

The 100-year history of the family enterprise was filled with technological innovations. After Louis established the enterprise, the second generation – his sons André, René and Marc – developed the business further and built the first industrial premises. In the third generation, led by Jean-Claude, Michel, and Marc-Alain Affolter, the company underwent a rapid modernization process. Electronics and high-tech equipment helped to improve the production processes.

Based on its innovative power, the Affolter Group expanded, diversified, and grew. In 1980, a mere 15 employees worked on a workspace of 5,400-square-feet. Today, the company has 140 dedicated employees, 15 apprentices, and four buildings with an overall workspace of 86,000 square feet. The fourth generation, led by Grégory and Vincent Affolter, as well as Nicolas Curty, oversees the continued expansion and diversification of the Affolter Group, including the founding of Affolter China in 2013 – a milestone for the enterprise.

The two main business lines of the Affolter Group are the contract manufacturing of gear trains for the gear trains industry and the development, manufacturing, and marketing of machine tools and numerical controls.

Affolter Pignons is specialized on the manufacturing of gear trains for the Swiss watchmaking industry. For 100 years, the company has reinforced its position as a leading expert in the art of force transmission. Through automation, Affolter Pignons was able to realize the mass-production of top-quality, high-precision gear trains.

“In a partnership with Affolter Technologies, we also develop our own machines. Together with our experience and know-how, that enabled us to grow quickly. We aim to continue this growth strategy,” said Grégory Affolter, managing director of Affolter Pignons.

Affolter Technologies specializes in the design, manufacturing, and commissioning of numerical control gear hobbing machines for microtechnology gears. “Through the decades, we were always dedicated to be a technology and innovation leader in the field of micro gear hobbing, aiming to make our customers more productive and efficient,” said Vincent Affolter, managing director of Affolter Technologies. That is why the company invests in R&D.

“Robots, machine learning, in-house designed and developed CNC controls, our own software, Industry 4.0 — we embrace the future,” Vincent Affolter said.

The CNC gear hobbing machines of Affolter Technologies are used for the production of microtechnology gears in markets such as watchmaking, micromechanics, automotive, aircraft, robotics, servo motors and dentistry; 80 percent are being exported into the EU, Asia, and U.S.

MORE INFO www.affoltergroup.ch