

COMMERCIAL NEWS

Tornos: setting the course for the future at EMO Hannover 2017

Moutier, Switzerland, August 11, 2017 - Globally renowned Swiss machine tool manufacturer Tornos will be among production technology leaders setting the course for the future—Industry 4.0—at EMO Hannover 2017, September 18–23 in Hannover, Germany.

Tornos' future-shaping workflow solutions to be premiered at EMO Hannover 2017 will perfectly illustrate the Moutier, Switzerland-based Tornos' brand promise, "We keep you turning," with an intriguing array of Industry 4.0-enabling to take manufacturers a step further toward Industry 4.0. Tornos workflow solutions to be presented include the all-new, SwissDECO 36 multitasking automatic lathe; an all new automation cell; and an ongoing, live introduction of its Industry 4.0-enabling TISIS process monitoring software.

Visitors to Tornos' modern, 325-square-meter booth at Hall 17, booth D15 at the Hannover fairground will discover why manufacturers worldwide and across a wide array of industries—automotive, micromechanics, electronic components, and medical and dental—turn to Tornos for workflow solutions, from machines to software and services.

World premiere: a sneak preview of the future of Industry 4.0

Tornos' EMO Hannover 2017 stand is the place to get a first look at a state-of-the-art automated Tornos production cell to produce, clean, measure and sort machined parts and—when necessary—communicate in-process corrections to each machine (closed loop monitoring). Tornos engineers are working hard behind the scenes on this innovative project in order to perfect its presentation at EMO Hannover 2017.

World premiere: a live look at the future with TISIS

Visitors to Tornos' stand will also experience **TISIS live**, with Tornos service engineers analyzing the status of each connected Tornos machine at EMO. TISIS machine communication and programming software is manufacturers' portal to the production efficiencies envisioned by Industry 4.0. With TISIS, machine operators get more interactive means of interfacing and intervening to manage unexpected situations. This smart and advanced ISO code editor puts you on the fast track to truly effortless programming and real-time process monitoring. Available in both full and lite versions, connectivity packs and Android or iOS systems, TISIS knows your Tornos machine fleet and can help you decide which machine to use for a specific part and, at the same time, enables you to assess each machine's options, reduces collisions and related downtime, eliminates the possibility of errors, and enhances your productivity, efficiency and quality. To date, more than 1,000 TISIS licenses have been sold worldwide.

World premiere: SwissDECO 36

EMO 2017 also marks the world premiere of Tornos' new **SwissDECO** multitasking single-spindle lathe, particularly suitable in very demanding segments such as automotive, medical and dental, electronics and aeronautics due to its enhanced machining and tooling solutions. Direct benefits of the SwissDECO, which will be available in mid-2018, are optimized programming tools and perfectly conceived ergonomics to speed up parts programming and shorten machine preparation and setup. This strong 36 mm diameter machine integrates a 12-position turret that allows the machine to machine the most demanding parts. Seamless integration of options such as the oil mist extractor, chip conveyor, heat exchanger, fire protection system, high pressure pumps, or a bar loader is assured.

Aiming to inspire

In addition to those impressive world premieres, Tornos' EMO 2017 guests are invited to get inspired by several existing solutions:

- **MultiSwiss 6x16**, accommodating workpieces up to 16 mm in diameter and 40 mm long, with 14 linear axis and seven C axes, and the **MultiSwiss 6x32** accommodating workpieces up to 32 mm in diameter and 65 mm long, with up to 19 linear axes and 7 C axes. Productivity on both solutions can be further boosted by the addition of up to 3 Y axis. This MultiSwiss platform is based on an "all-in-one" concept combines the benefits of single-spindle turning machines with the advantages of multi-spindle machines. Highly productive, just one MultiSwiss can replace multiple single-spindle lathes while providing more production capacity in less floor space and with fewer operators.

Thanks to its motorized barrel, these solutions achieve the same production rates as cam-type machines—but with even quieter operation. Their superb ergonomics, incorporating front access and integrated peripherals, make setup a snap, and their simplified programming makes it easy for single-spindle operators to get great results. The machines ultra-dynamic and entirely independent spindles allow angular positioning and optimal speeds in each position. Since each spindle has its own Z axis with hydrostatic bearings, you get flawless finishes and extend the lifetime of your tools by 30 to 40 percent.

- **MultiSwiss 8x26** accommodating workpieces up to 26 mm in diameter and equipped with eight spindles. Each position can have up to four tools. The MultiSwiss 8x26 takes performance to a new level in terms of both complexity and productivity. Thanks to its eight highly dynamic synchronous motor spindles and ultra-fast barrel indexing, the new MultiSwiss 8x26 can produce turned parts to help users achieve very high levels of productivity. Its powerful 11-kW motor spindles boast high torque (16.1 Nm) and operate independently to insure the optimum speed for each operation as well as controlled positioning in operation and counter operation. Reaching speeds of 8000 rpm in only a few tenths of a second, these motor spindles make a major contribution to the machine's performance. As an option, the machine can be equipped with multiple Y axes to boost its capability and allow more tools and full control of the Y axis for off center-holes or any specific milling operation. The machine is available in three configurations: without Y axis (entry level); with three Y axes (intermediate); with six Y axes (complete) for the most complex parts.
- **SwissNano**, the champion for manufacturing small workpieces requiring very high precision. The machine's unique kinematics enable turning, drilling, cutting,

deburring, roughing and finishing operations, allowing it to produce two-thirds of watch movement components—from the simple to the most complex—and it's equally adept at executing micro medical and dental parts with extreme quality and precision. Behind the SwissNano is a machine concept delivering exemplary balance, and its thermal management allows operating temperature to be reached rapidly so that you're quickly on your way to achieving perfect results. This compact solution offers excellent accessibility for easy setup, and can be used with a fixed/rotating guide bushing—or no guide bushing at all.

- **Swiss GT 32** for easily manufacturing even the market's most complex parts. With its very powerful and versatile linear axis kinematics, your operator can work in both main and counter operations with three numerical axes. With its innovative design ensuring good rigidity and a powerful 8,000 rpm spindle, the Swiss GT 32 and Tornos take the Swiss-type lathe into a new era and provides a solution to help manufacturers gain a competitive edge in new and lucrative industrial segments.
- **Swiss DT 26**, an entry level, 25.4 mm machine with five linear axes. This extremely powerful machine is designed to easily withstand heavy-duty machining. Its wide machining area optimizes chip flow, and its modular tooling zone—unique in this machine range—makes it a snap to mount a thread whirling or polygonal milling device. This easy-to-use, flexible workhorse offers a quick return on investment in today's demanding business environment.
- **Almac BA 1008 HP**, expanding the range of the Almac BA. Working from the bar and equipped with four frontal spindles, three lateral spindles and two back operation spindles, the machine features a through-spindle cooling system for faster, more precise machining of a wide variety of materials, while optimizing fluid and chips management.

The Almac BA 1008 HP is completely aligned with Industry 4.0. In addition to having the monitoring functions offered by the TISIS software suite, the has an integrated probing system that allows it to automatically correct itself to compensate for tool wear. The Almac BA 1008 will also be presented with a tool changer for six tools for the lateral spindle block. This feature further enhances this small machine's already advanced system and impressive capability. Thanks to this new option, the Almac BA 1008 HP can work with up to eight tools in the lateral spindle.

- **Almac CU 2007**, combining dynamic performance and outstanding reliability with Swiss expertise to provide an affordable and truly innovative solution. This gateway to three- and five-axis machining brings together comprehensive standard equipment and combined engineering expertise to create optimal conditions for producing complex workpieces. With its powerful, high-performance 20,000 rpm milling spindle, 60 m/min rapid feed rate, and 16, 24-position HSK-E40 tool changer, this solution ably tackles main plates, bridges and other complex watch components, as well as small parts machined from billets. Five-axis configuration and a 40-position tool changer are available. As a novelty this year, the machine will be equipped with a bar loader, transforming the CU 2007 into a real production machine able to mill, turn and machine the sixth face of parts at a very interesting price/performance ratio. These characteristics make the Almac CU 2007 a unique solution on the market.

- **Tornos Service**, delivering true value throughout the full product life cycle of each Tornos machine. Tornos Service's productivity-enabling services include start-up assistance; expert training and coaching; free hotline; on-site operations support and preventive maintenance; original spare parts seamlessly delivered worldwide; complete overhauls to extend the longevity of Tornos machines; and a range of operations and X-change Modules to expand your application capabilities and profitability.

Visit Tornos at EMO Hannover 2017—and get inspired to seize new opportunities for productivity, quality and profit.

Further information on Tornos can be found at www.tornos.com

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Company profile

Tornos Group is one of the global leaders for the development, production and distribution of Swiss-type automatic lathes and multi-spindle machines. The company's history dates back to 1880, placing Tornos at the beginning of Swiss-type lathe technology. The Group primarily manufactures CNC Swiss-type (sliding headstock) turning machines, multi-spindle machines with numerical or cam control, and machining centers for complex parts requiring high precision (Almac). Tornos is headquartered in Switzerland. Through a global sales and service network, unique solutions are supplied to customers in dedicated market segments such as Automotive, Medical and dental technology, Micromechanics, and Electronics. With its approximately 630 employees (FTEs), Tornos Group generated sales of CHF 136 million in 2016.