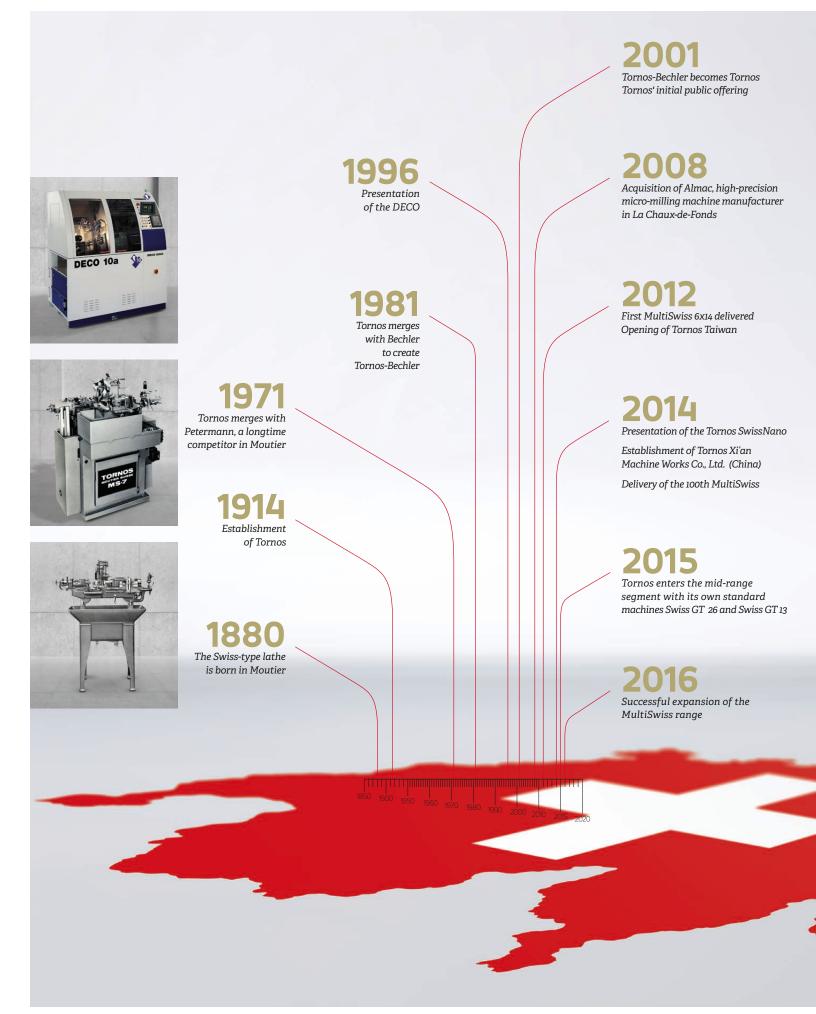
# TORNOS

### Company profile



# The Tornos legacy: turning for you

Headquartered in the Jura region of Switzerland, Tornos, a manufacturer of automatic turning machines, is a pioneer of sliding headstock technology or Swiss-type automatic lathes. Since 1880, this region has developed as a provider of high-precision automatic turning machines to the world. Tornos primarily manufactures CNC sliding headstock automatic turning machines, cam- or numerically-controlled multi-spindle machines and machining centers for complex workpieces requiring high-precision machining (Almac). Because the high-precision turning sector is subject to stringent standards governing quality, precision and productivity, it is little surprise that these Swiss strengths come from the same part of the world.

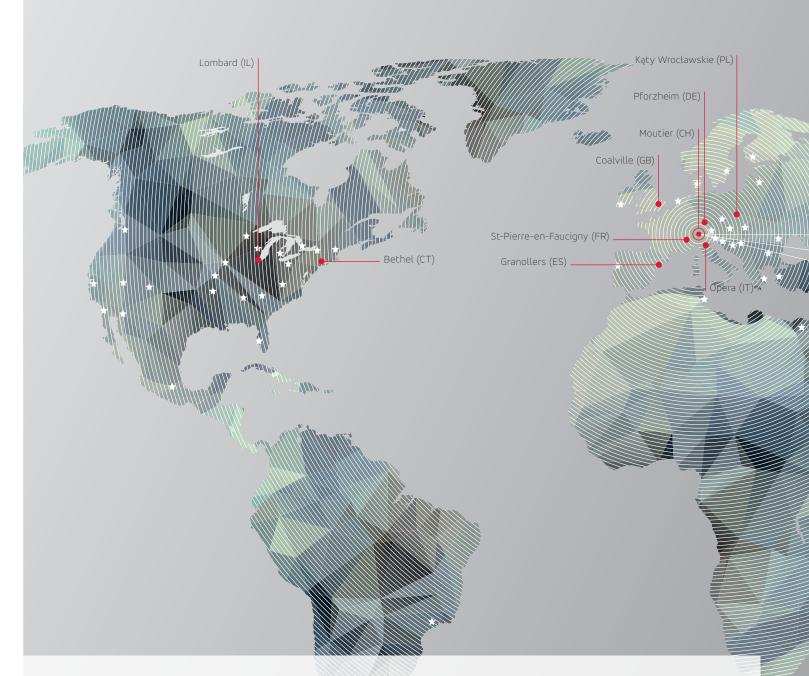
Tornos' history begins in 1914 with construction of Swiss-type automatic lathes, when the Moutier plant, as it is known today, started manufacturing. In 1930, Tornos began manufacturing the first mass production Swiss-type lathe, the Tornos M10. In 1958 the first cam multi-spindle machine, the Tornos AS 14, was presented; its advanced successor, the SAS 16.6, is still produced today in Moutier. In 1978, Tornos debuted its first Swiss-type lathe with a numerical control, the Elector 16. In 1988, Tornos launched the CNC 632, the world's first CNC multi-spindle machine. The 1996 launch of the Tornos DECO and MultiDeco concept marked a true revolution in the market and the start of a new era; more than 10,000 machines of this kind were installed globally and many of them are still running day and night to the customers' full satisfaction.

Another era started in 2006 with the introduction of the market's most advanced multispindle machines, the MultiSigma 8x28 and the MultiAlpha 8x28, followed by the Sigma and the high-precision Micro line.

To strengthen its position in micromechanics, Tornos acquired Almac, a well-established Swiss brand for high-precision machining centers.

The 2011 launch of the MultiSwiss 6x14, with its crossover concept bridging Swiss-type and multispindle lathe technology, was a true revolution in the history of turning machines. Another spectacular moment was the 2013 debut of the SwissNano, a compact, high-precision machine praised by Tornos' most discerning customers.

In the scope of internationalization, Tornos expanded its production footprint to Taiwan and China to enter the market with its own standard machines. Several new products have been introduced since.



#### **Tornos Moutier**

Unlike the other sites, which have assembly capacity, Moutier is a production site equipped with latest-generation machines. It is here that the key components of Tornos' world-renowned machines are produced. In addition to this production capacity, the site coordinates development efforts throughout the world and conducts research. Here the high-end sliding headstock automatic turning machines are assembled, such as the EvoDECO and SwissNano, as well as the MultiSwiss and the other multi-spindle machines, including the MultiSigma, MultiAlpha, and SAS 16.6.

Key components stamped "made in Switzerland" are produced for all of the Group's production sites.



# Rooted in Switzerland, and close to you with a global footprint

Production sites
Sales and Service
Agents



Tornos throughout the world

#### Tornos Xi'an

Working with renowned Chinese company XKNC, Tornos extended its international presence to Xi'an, China, with the establishment of a production and sales joint venture.

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Tornos Xi'an opened a new facility in 2014 with a special testing and development center which enables it to fit out machines to customer specifications. The company produces standard products delivering great value for money on a global scale, such as the Swiss DT line and the CT 20.



#### Tornos Taiwan

Shanghai (CN)

Taichung (TW)

In 2014, Tornos built its own production site for mid-range products in Taichung, Taiwan, a city with a long machine tool-making tradition and a broad network of industrial suppliers. Tornos Taiwan produces mid-range machines such as the Swiss ST 26 and the Swiss GT line. The site's scope of services also includes specific development, customization, setup, designing models and on-site testing of the machines produced. Like in Tornos Xi'an, the key components are sourced from the Swiss production site in Moutier.



## With broad application know-how, Tornos delivers tailored solutions

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### Micromechanics.

A cornerstone of the Swiss industrial tradition, this sector is a major consumer of very high-precision turned parts, particularly crowns, winding mechanisms, various screws, and balances.



#### Automotive

A wide variety of automotive parts are produced by bar turning: bleed screws, ball joints, motor parts, suspension system components, anti-lock braking systems (ABS), airbags, and hydraulic systems, just to name a few.

### Electronics

The ever-evolving electrical and electronics sectors require ever more inventive developments to produce increasingly complex and tiny parts. All modern consumer goods, from computers and electronic goods to mobile phones and TVs, require bar-turned parts.

### Medical & Dental

Highly sophisticated applications and difficult-tomachine materials (e.g., titanium and vacuum-arc remelted stainless steel) require ingenious machining solutions such as thread whirling that uses a tool rotating at a very high speed. Bone screws, spinal hooks, and dental implants are just a few of the medical devices enabled by Tornos' technologies.

# Masterpieces of innovation



Swiss DT 26 Next generation entry-level Swisstype machine. 100% engineered by Tornos. 2016



### Innovation revolves around performance, precision and longevity.





Swiss GT 32 Premium performance standard Swiss-type machine. 100% engineered by Tornos. 2016 **Design study** Next generation

high-end Swiss-type machine. 100% Swiss Made. 2017



## Powering your turning performance with real expertise

### Intelligent operational excellence.

Economy, flexibility and efficiency are the most important premises in the Tornos Group's production and assembly network. The same consistent standards of quality are enforced at all locations around the globe.

Intelligent linking of knowledge between all plants as well as the exceptional commitment, responsibility, and identification of Tornos employees enable production to begin right on time—with the highest Tornos standards.

Lean assembly and careful use of resources are the guiding principles behind all production planning and an integral part of the entire production process.

This enables the Tornos Group to react quickly and flexibly to customer demands and market requirements throughout the world.



## TISIS – Communicate with your machines

### Industry 4.0

#### Programming

Able to manage up to three channels, the ISO editor automatically synchronizes the code between the channels and uses syntax highlighting to enable value codes to be easily distinguished.

#### Selecting your tools

The TISIS database contains all of the tool resources; for example chisel holder plates, thread whirling tools, polygon tools or milling tools are all integrated. TISIS manages incompatibilities between the various tools and the user is guided intuitively.

#### Transfer

Transfer virtual programs to your bank of machines. Modify the program on the machine and transfer it again to your computer, maintaining full traceability.

#### Monitoring

Monitor your machine inventory in detail. See the status of the machines in the workshop and an overview of current production; the workpiece counter, remaining production time and the name and drawing of the workpiece are available at any time.





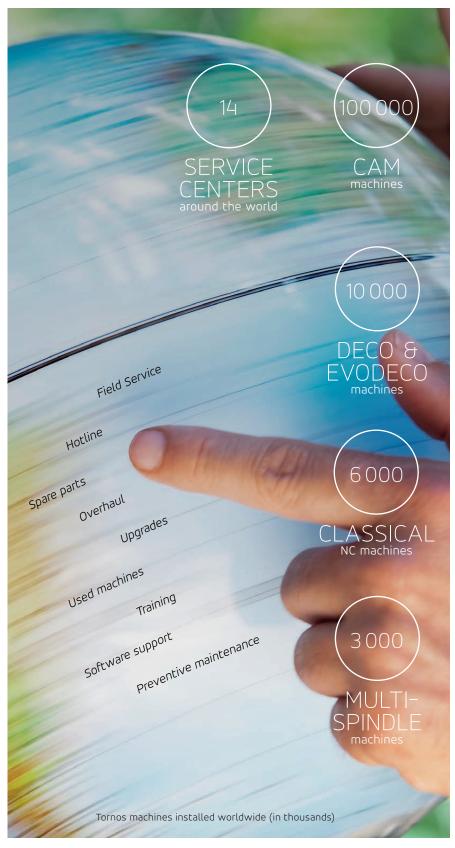
Discover the TISIS video

# Service – A continuum of expert support

Backed by both geographical proximity to customers and a keen understanding of their processes, applications and market challenges, our service delivers an unparalleled continuum of support: 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 upgrades to expand your application capabilities and profitability.

Buying a Tornos machine is much more than a business transaction. It is your investment in the future. Our team thrives worldwide on securing the predictably high production capability of products carrying the Tornos name.

Situated close to you, as demonstrated by the 14 service centers strategically located across Europe, Asia, and the Americas, Tornos Service offers a full continuum of authoritative support for you and your Tornos machines, and encompasses the innovation, reliability and attention to detail expected of a premier Swiss brand. And it is all backed by a 100-year legacy of expertise and in-depth understanding of customers' processes, applications and challenges across a wide range of industrial segments, including automotive, medical & dental, electronics and connections, and micromechanics.





Discover Tornos Service

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