

# TORNOS

TORNOS  
Swiss GT 32

*Your advanced  
machining solution*

Swiss GT range

Efficient, versatile  
and easy to use

## Swiss GT

The Swiss GT range of Swiss-type lathes is designed for the production of conventional parts of all types. In fact, thanks to the B-axis technology available on the Swiss GT 26 and Swiss GT 32, it is possible to produce complex parts. Available in three diameters — 32 mm for the Swiss GT 32, 25.4 mm for the Swiss GT 26 and 13 mm for the Swiss GT 13 — the line is specifically designed to ensure successful production of long and short turned parts.



C axes 2  
 Maximum number of tools 30  
 6 Linear axes  
 13 mm Maximum diameter  
 12 Maximum number of rotating tools

Swiss GT 13

\* B axis 1  
 C axes 2  
 Maximum number of tools 40  
 6 Linear axes  
 25,4 mm Maximum diameter  
 14 Maximum number of rotating tools

Swiss GT 26

\* B axis 1  
 C axes 2  
 Maximum number of tools 40  
 6 Linear axes  
 32 mm Maximum diameter  
 14 Maximum number of rotating tools

Swiss GT 32

\* Positioning B axis: option/Continuous B axis (5 simultaneous axes): option

# Versatility to meet any challenge

Up to  
35 m/min.

Reliable, flexible and easy to use, the Swiss GT range helps you to substantially increase your productivity. The advanced technical features and six-axis kinematics of the Swiss GT make it ideal for all your manufacturing challenges.

## Easy to use

- Easy to program thanks to the TISIS software and Tornos machine interface (TMI).
- Tool setting is 100% numerical
- High volume oil tray and chip container.
- Large machining area.

## Performance

- Industry 4.0 ready
- High productivity
- Oil-cooled rotating guide bush with built-in synchronous motor
- Powerful motorisation, running at 10,000 rpm.
- Up to 40 tools, 14 of which rotate, on the Swiss GT 26 and Swiss GT 32
- Up to 30 tools, 12 of which rotate, on the Swiss GT 13
- Identical spindle and counter spindle
- High-power chip removal
- Easy setup
- B-axis

## Flexibility

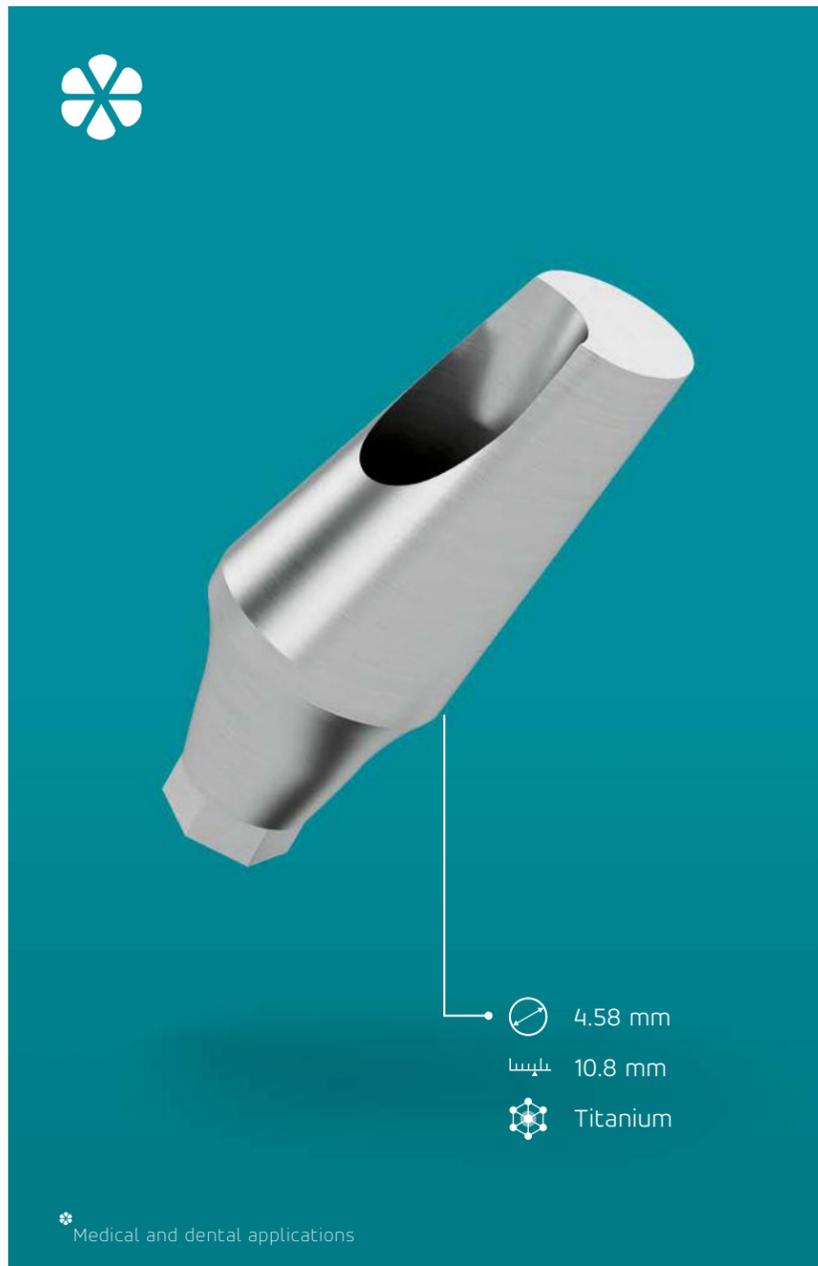
- Two independent tool systems; the tooling is completely compatible and interchangeable
- Tool setting is 100% numerical.
- Modular machining area enabling the integration of special equipment
- Work with or without guide bush
- Machine boasting a wide range of equipment

When machining dental parts from titanium, chip control and the service life of the tool can be problematic. The rigidity and the large machining area of the Swiss GT make it the perfect partner for this type of work. It is also possible to extend the machine's

capacity by adding various Tornos peripherals (high-pressure pumps, chip conveyors, oil mist extractor, etc.)

With their continuous or positioning B axis, suitable for both main and counter-operations, the Swiss GT 26B and the Swiss GT 32B are able to produce awkwardly shaped parts with ease, without the need for mechanical adjustment. It is also possible to install a mechanically inclined drilling/milling device on a machine without a B axis.

Machine  
conversion  
in just  
15 minutes

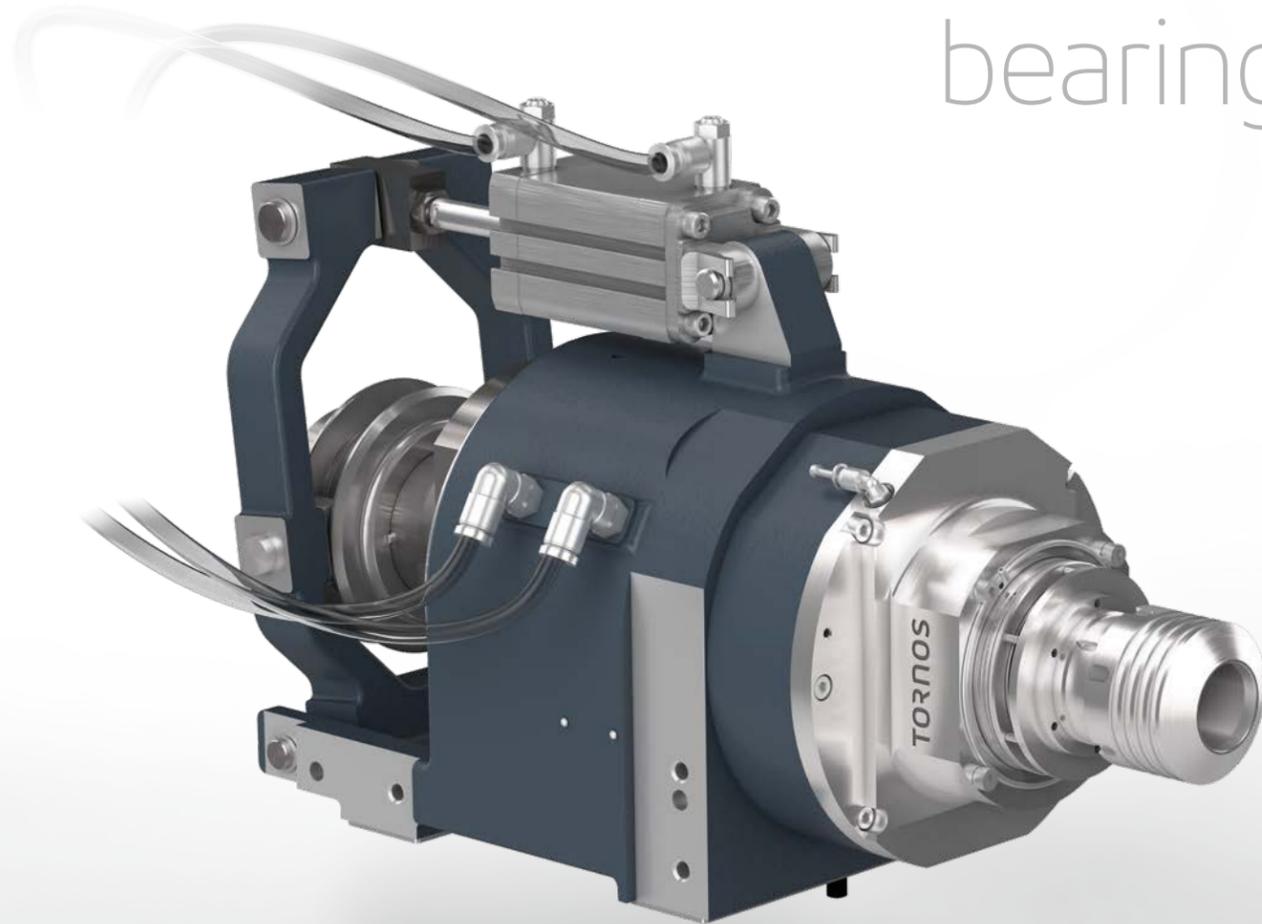


4.58 mm  
10.8 mm  
Titanium



# Built for speed

## Ceramic roller bearings



*Taking your turning operation to the next level. Versatility, high performance in value-added operations, and the ability to work with or without a guide bush make Swiss GT machines comprehensive bar turning solutions. Your result: easy production of complex parts at a competitive price.*

*Everything goes fast. The Swiss GT's guide bush, driven by a synchronous motor, and the liquid-cooled spindles running at 15,000 rpm\*, not only ensure the highest precision, they allow you to save precious seconds. The spindles and guide bush are equipped with ceramic roller*

*bearings to guarantee thermal stability, precision and durability, even at high loads. The direct drive guide bush provides high-speed, accurate machining, thereby reducing cycle times and improving surface finishes.*

*The Swiss GT line is a comprehensive bar turning solution. For instance, each machine features a 20-bar pump with two independent filters. To boost your efficiency on short parts, Swiss GT machines can be converted to run without a guide bush in less than 15 minutes. A handy support for your guide bush can be found right next to the spindle—with no cable disconnection required.*

## Liquid-cooled spindles

*The Swiss GT family is able to offer you a high level of autonomy, thanks to our strong focus on ergonomics. The chip container can be emptied while the machine is running, and the well-lit, accessible machining area allows for very fast changeovers.*

*The numerical control on a pivoting arm and the highly practical tool box are other major advantages offered by this range.*

## Maximum speed of 8000 and 15,000 rpm



Conquer new markets and new materials thanks to the flexibility and performance offered by the Swiss GT range. Take advantage of the quickest guide bush conversion on the market!



# Exceptional machining performance

**1**  
Adapted to the Swiss GT 13, Swiss GT 26 and Swiss GT 32  
**Your cutting-edge tooling solutions for main operations**

- Thread-whirling unit, 5700 rpm max. Angle  $\pm 25^\circ$   $\varnothing$  10 mm max.
- Rotating spindle for milling
- Drilling/milling spindle (offset 15 mm)
- Double drilling/milling spindle for B axis
- Double drilling/milling device
- ESX20 drilling/milling spindle (offset 6 mm)
- Thread-whirling unit Maximum 5700 rpm Angle  $\pm 25^\circ$   $\varnothing$  10 mm max. (except Swiss GT 32)
- Cutting module
- Polygon unit with maximum of 6000 rpm Polygon tool,  $\varnothing$  80 mm

**2**  
Adapted to the Swiss GT 13, Swiss GT 26 and Swiss GT 32  
**The solution for counter-operation tooling**

- Slotting unit
- Inclined drilling/milling device

**3**  
Adapted to the Swiss GT 26B and Swiss GT 32B  
**Your advanced tooling solutions for the B axis**

*The custom developments made by Tornos engineers allow users to improve the performance and flexibility of their machines, ensuring that they are able to meet the needs of their customers.*

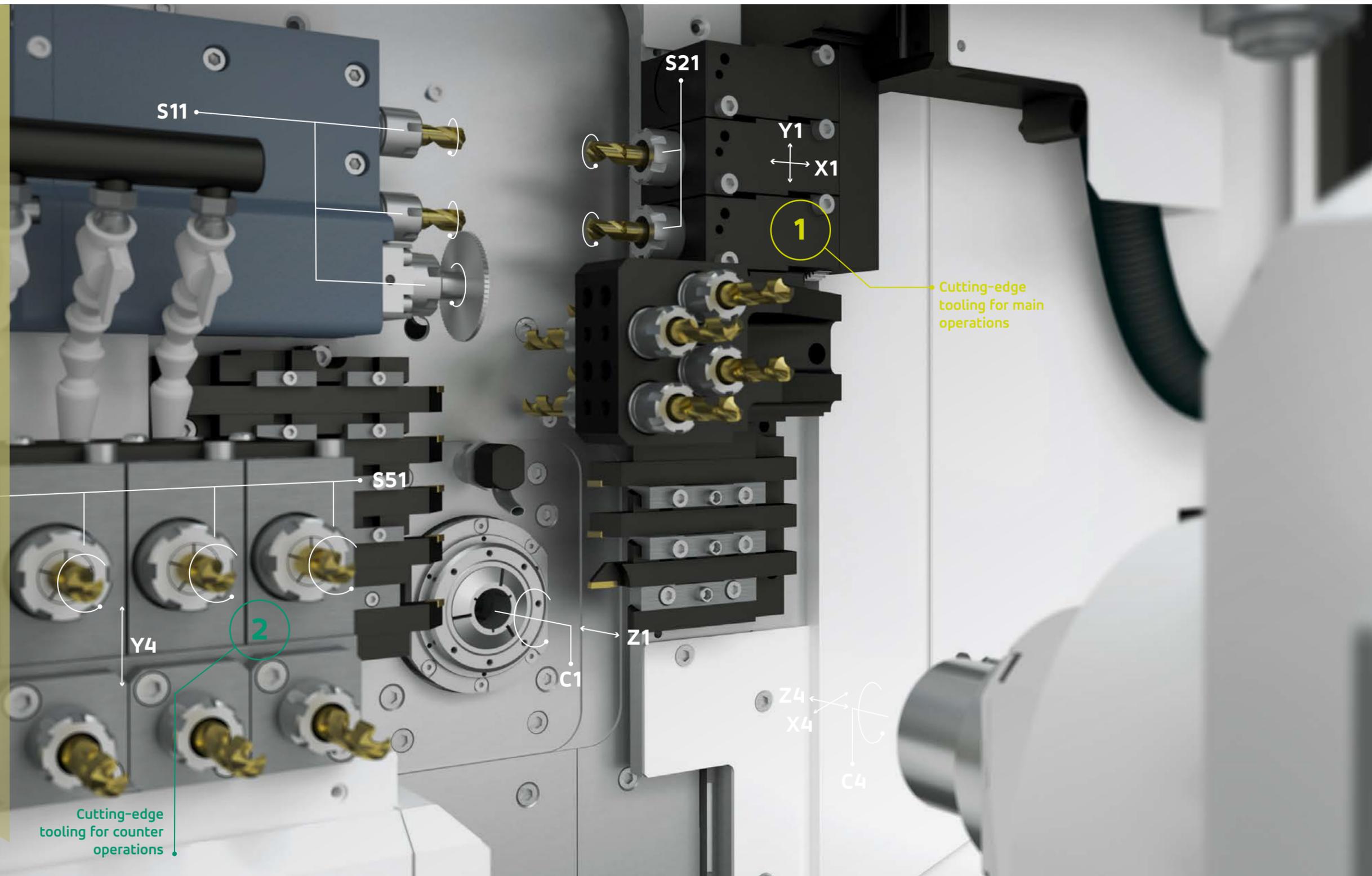
*The machines in the Swiss ST, Swiss GT and Swiss DT ranges share the same tool base, guaranteeing perfect interchangeability within the machine*

*inventory. For example, a polygon unit can be fitted on either a Swiss DT 26 machine, or a Swiss GT 26, with no adaptation needed, and no issues whatsoever. This significant advantage allows for greater flexibility, whilst limiting the need for capital investment. Thanks to the TISIS software, it is also easy to identify the various options offered by the range of machines for each user.*

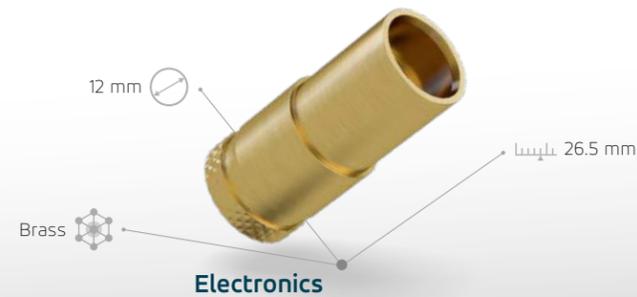
## Swiss GT 13

Up to 30 tools, including 12 rotating tools

The Swiss GT 13 is equipped with three motors (two on the platen and one for counter operation) to drive numerous rotating tools. A modular position is available to accommodate the addition of advanced tooling. The rotating tool holders on the rear platen and the counter operation station are easily exchangeable and compatible with the Swiss GT 26 and the Swiss GT 32.



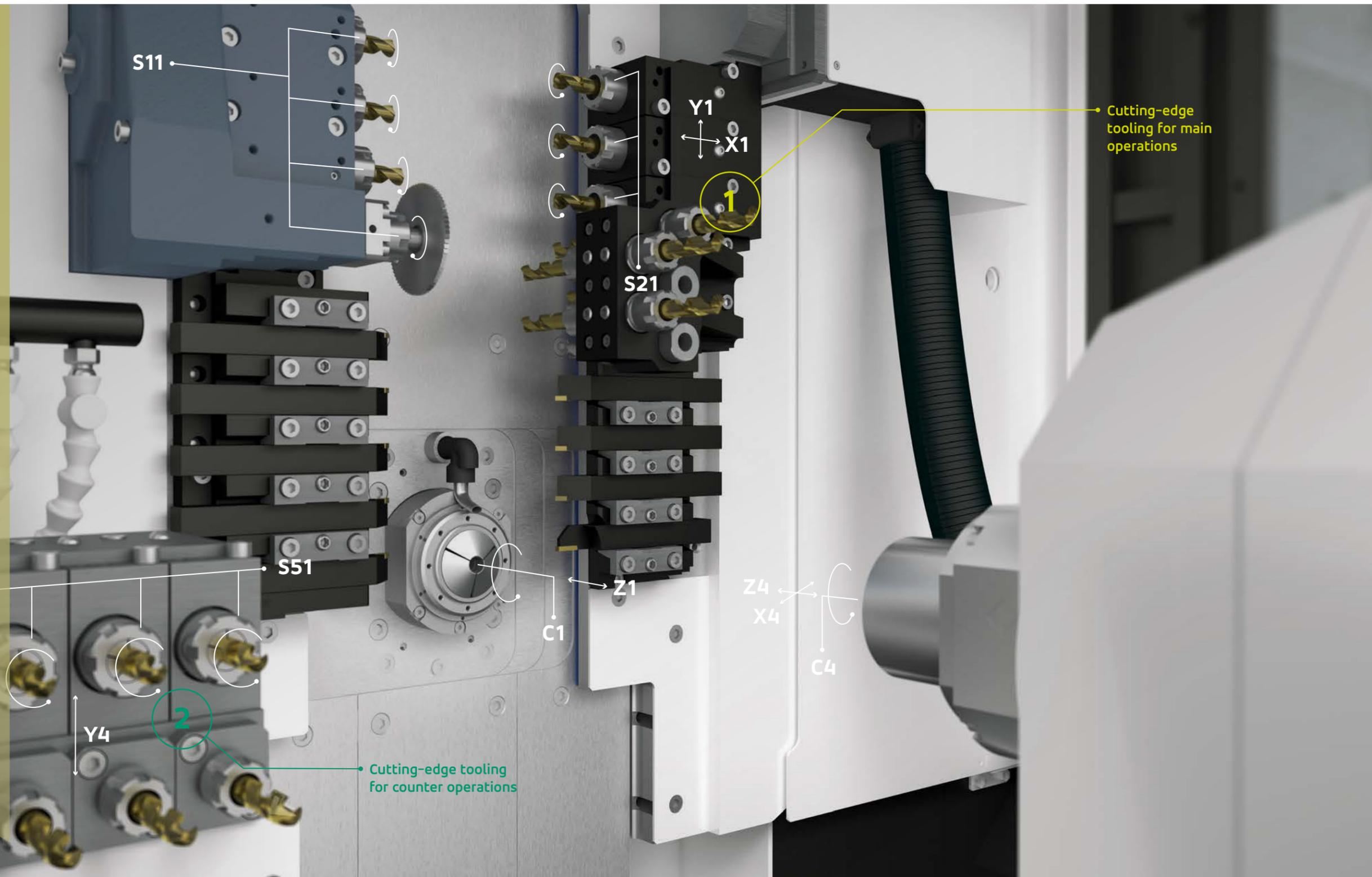
Productive and flexible, the Swiss GT 13 brings every type of machining within your range.



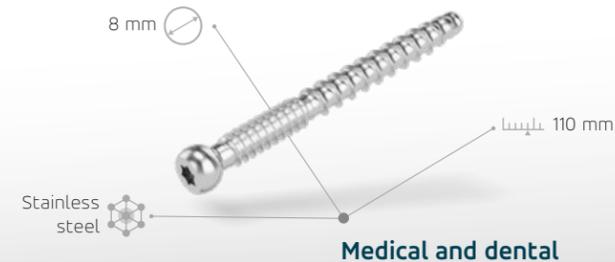
## Swiss GT 26 and Swiss GT 32

Up to 40 tools, including 14 rotating tools

Just like the Swiss GT 13, these are equipped with three motors which drive a large number of rotating tools. The rotating tool holders on the rear platten and the counter operation station are easily exchangeable and compatible with the Swiss GT 13.



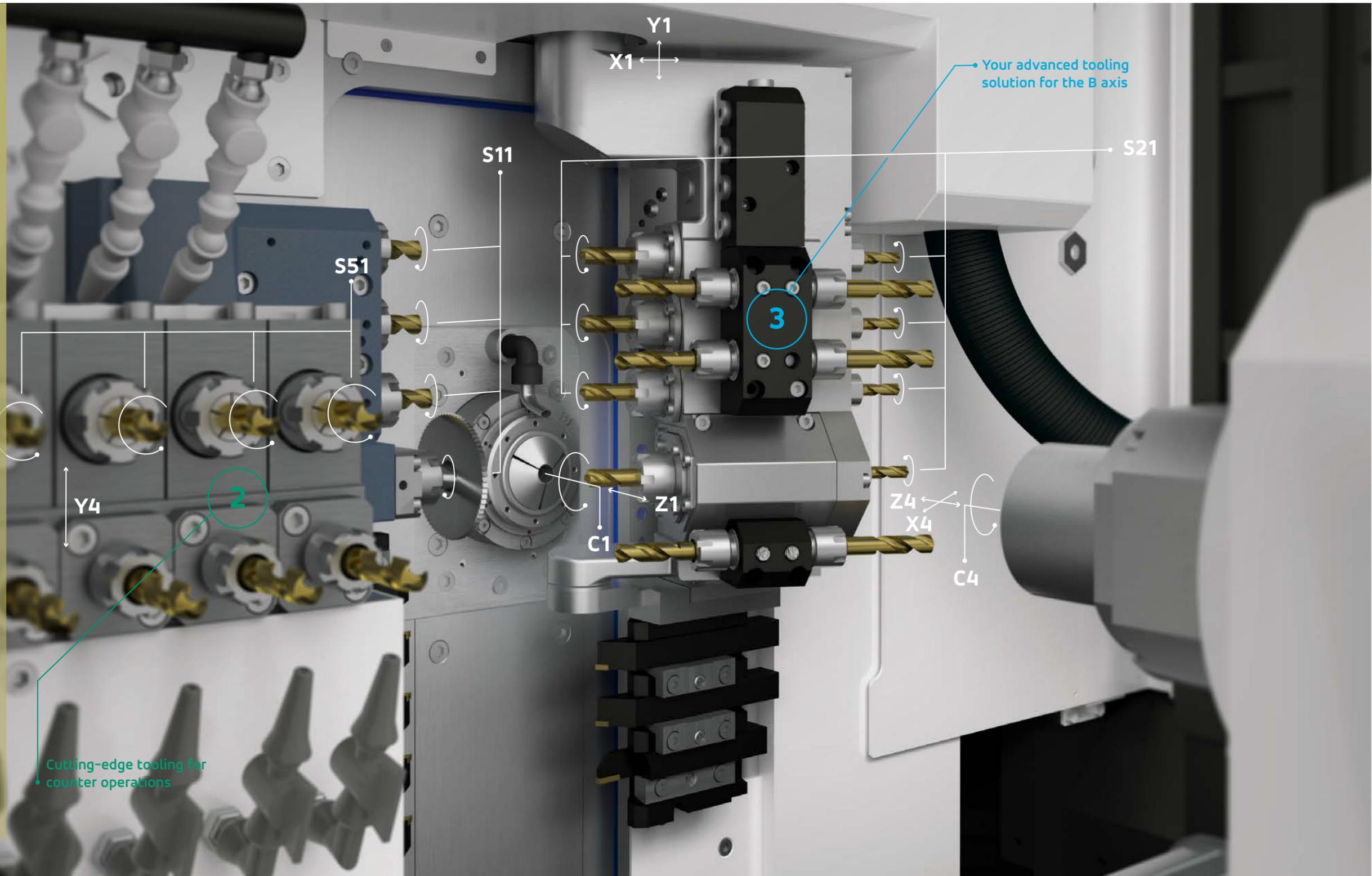
To meet market expectations, the Swiss GT 26 and Swiss GT 32 offer you exceptional versatility.



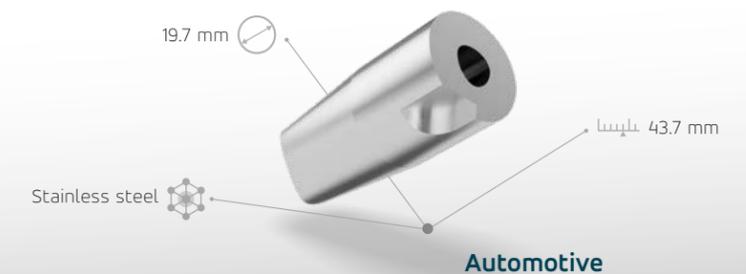
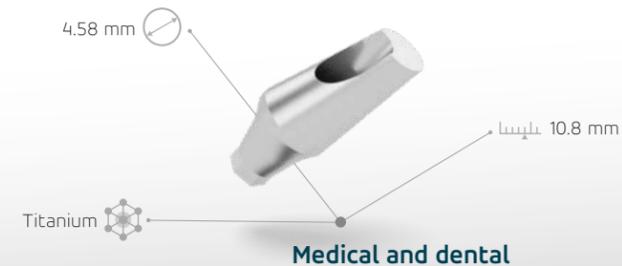
## Swiss GT 26B and Swiss GT 32B

Up to 36 tools, including 16 rotating tools

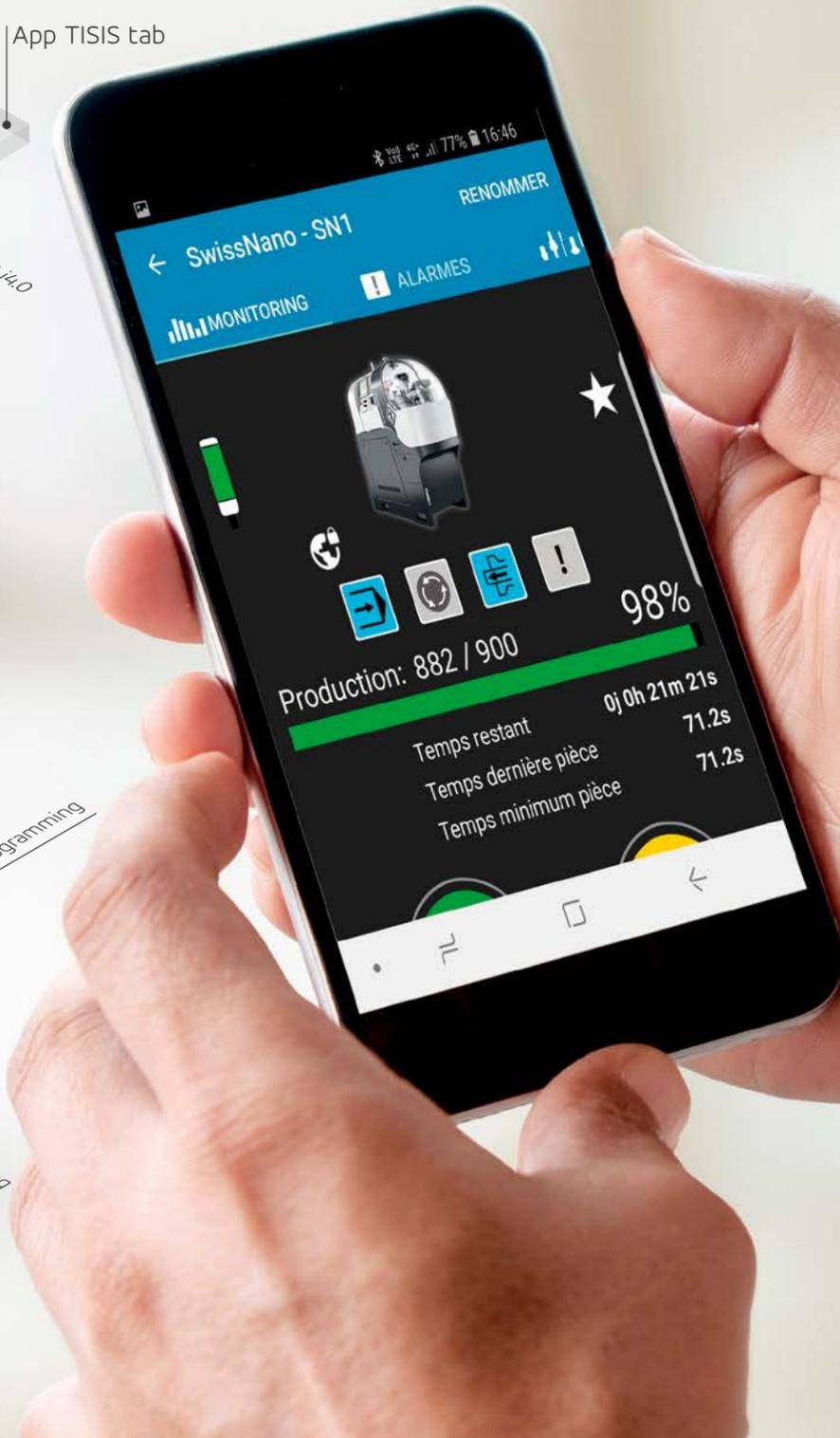
These machines possess unique characteristics. The innovative design of the B-axis accommodates 2 X 4 rotating spindles with a spindle speed of up to 9000 rpm. The last rotating position is modular and can accommodate a thread whirler (Swiss GT 26B). It is also possible to install a fixed tool station.



Tornos' signature  
high performance



# TISIS: Programming and communicating with your Swiss GT machine



## Experience programming intelligence

In today's competitive global marketplace, there's not a moment to waste in meeting customers' demands. Our available TISIS communication and programming software puts you on the fast track to truly effortless programming and real-time process monitoring. TISIS knows your Tornos machine fleet and can help you decide which machine to use for a specific part. But that's not all: TISIS enables you to assess each machine's options, reduces the risk of collisions and the resulting stoppages, and improves your production efficiency. TISIS is a smart and advanced ISO code editor that does the thinking for you. It knows your Tornos machine fleet, can help you write your code, and points out any coding errors. It puts the code in colour and can display your program in an easy-to-read Gantt diagram, making it easy for you to see the critical path and react quickly to optimise the process. As an option it is also possible to use our smart TISIS CAM solution, designed to help you master your Tornos machine when it comes to complex and very complex parts. TISIS CAM significantly reduces setup time and, coupled with TISIS, it is the perfect solution for efficiently programming and optimising parts.

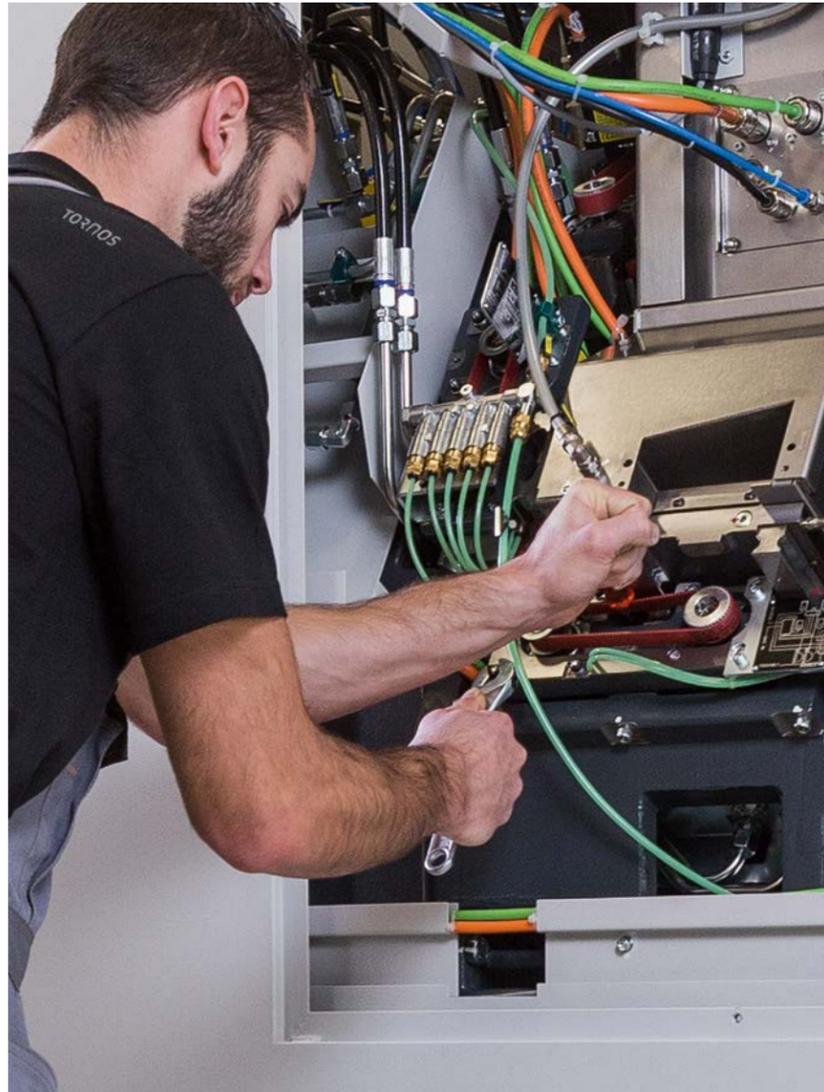
## Industry 4.0

At the same time, TISIS takes the complexity out of process monitoring, enabling you to take your first steps into the Industry 4.0 universe. Even from a remote location, you can keep an eye on the details of the machining process from your smartphone or tablet. The software also enables you to quickly transfer your programs, either by USB key, or directly onto the machine via your company network. Your parts designs in various stages of completion can be stored with your program. These can then be easily found in the database using a search function.



Discover the  
TISIS video

# Tornos Service



Buying a Tornos machine is much more than a business transaction. It is your investment in the future. Tornos Service thrives worldwide by guaranteeing the superior production capabilities of products carrying the Tornos name.

Situated close to its customers, as demonstrated by the 12 Tornos Service Centres strategically located across Europe, Asia, and the Americas, Tornos Service offers a comprehensive range of leading support services for 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, electronics and connectivity, and micromechanics.

### Start-up assistance

From the first feasibility tests prior to purchase, you are in good hands with Tornos Service. In our state-of-the-art Techno Centres, expert application engineers support you with tests to gauge the feasibility of machining processes and applications. With start-up assistance, you are secure in the knowledge that you will never be left alone to deal with a brand new machine.

### Expert training and coaching

Engineered for intuitive and easy use, Tornos machines offer a vast range of options and enable myriad processes. Expert training and coaching help your employees become specialists proficient in programming, handling and maintenance, adding more value to your processes, applications and products.

### Free Hotline support

Wherever you are in the world, highly qualified specialists who speak your language and understand your processes are just a phone call away to quickly support you with handling and programming solutions.

### On-site support

Fast, efficient on-site operations and preventive maintenance ensure the continuous high performance of your Tornos machines. Regular

scheduled preventive maintenance can help you avoid 70% of machine breakdowns and keep you on the path to productivity.

### Certified original spare parts

Rapid, reliable, worldwide delivery of certified original spare parts is a speciality of Tornos Service. Regardless of the age of your Tornos machine, we stock the essential certified spare parts to keep the machine running at peak performance.

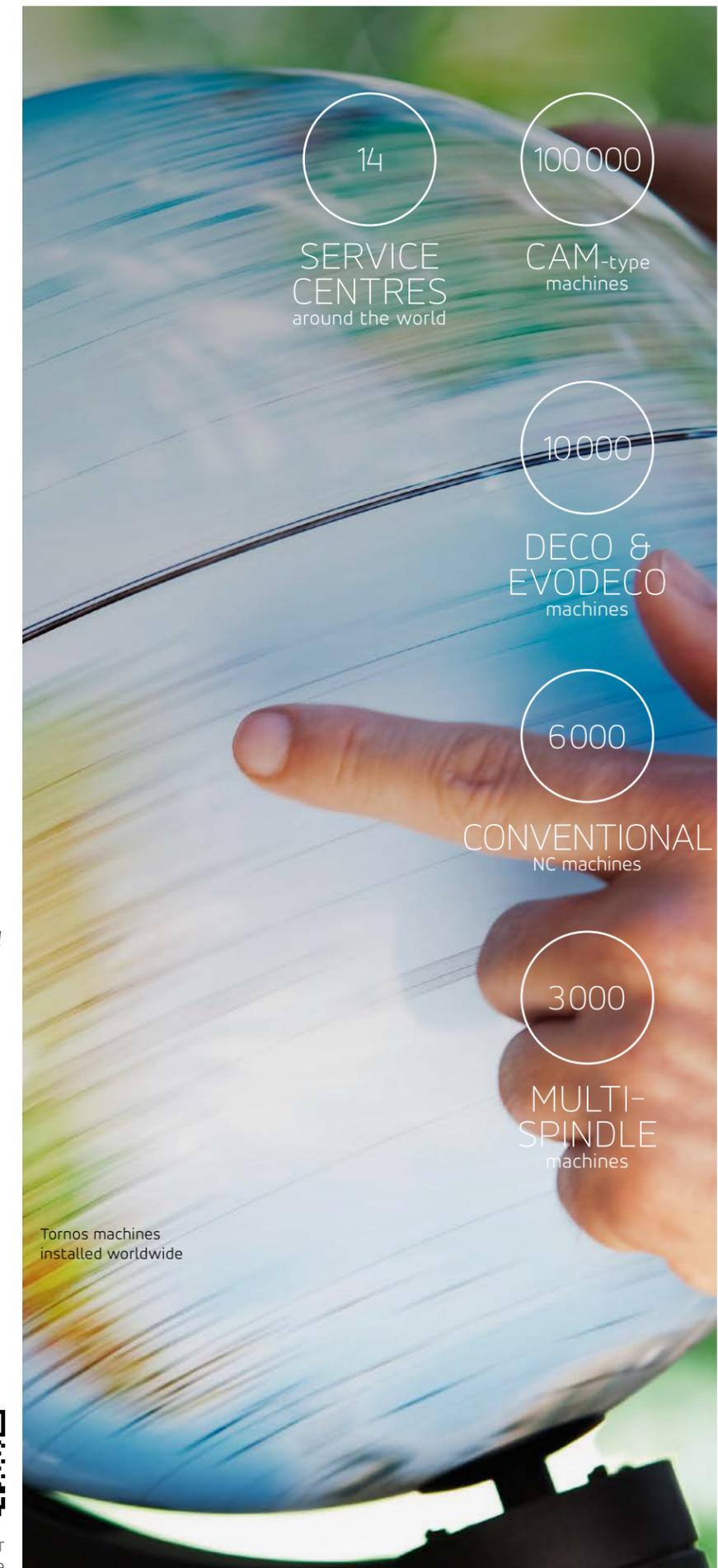
### Machine overhauls

Tornos machines inspire confidence. It's no surprise, therefore, that many customers turn to Tornos for a complete overhaul of their machines. The Tornos overhaul service returns the machines in good-as-new condition, significantly extending their service life.

### Options, upgrades and X-change modules

To help you achieve your manufacturing, productivity and quality objectives, our experts collaborate with you to manage complex machining processes, develop software features for machining complex shapes, design special equipment, and tailor peripherals to your needs. Tornos' X-change modules expand your application capabilities and profitability.

Backed by both geographical proximity to customers and an in-depth understanding of their processes, applications and market challenges, Tornos 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 service life of Tornos machines, and a range of operations and X-change modules to expand customers' application capabilities and profitability.



Discover  
Tornos Service

# Technical specifications



## TECHNICAL SPECIFICATIONS

		<b>Swiss GT 13/6</b>	<b>Swiss GT 26/6</b>	<b>Swiss GT 26B</b>	<b>Swiss GT 32/6</b>	<b>Swiss GT 32B</b>
		6 linear axes + 2 C axes	6 linear axes + 2 C axes	6 linear axes + 2 C axes + 1 B axis	6 linear axes + 2 C axes	6 linear axes + 2 C axes + 1 B axis
		2 independent tool systems	2 independent tool systems	2 independent tool systems	2 independent tool systems	2 independent tool systems
<b>Main spindle</b>						
Max. bar capacity	mm	10 (13)	23 (25.4)	23 (25.4)	32	32
Standard workpiece length with rotating guide bush	mm	190	220	220	200	200
Spindle rotation speed	rpm	0-15,000	0-10,000	0-10,000	0-8000	0-8000
Spindle power	kW	4.0 (5.0)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)
Max. torque	Nm	12	26	26	26	26
<b>Platten</b>						
Max. number of turning tools		8	9	8	9	8
Turning tool section		12x12	16x16	16x16	16x16	16x16
Number of front tools (op/cop)		4/4	5/(5)		5/(5)	
Positions for rotating tools (S11)		3	4	4	4	4
Positions for rotating tools (S21 modular positions)		2	3		3	
Rotating tool speed of rotation	rpm	6000 (10,000)	6000	6000	6000	6000
Rotating tool power (S11/S21)	kW	1	1	1	1	1
<b>B-axis</b>						
Number of rotating tool positions S21 (op/cop)				4/4		4/4
Number of fixed front tools (op/cop)				4		4
High-frequency spindle				Option		Option
Thread-whirling device				Option		
Rotating tool speed of rotation	rpm			9000		9000
Rotating tool power (S11/S21)	kW			1		1
<b>Counter spindle</b>						
Max. bar capacity	mm	13	25.4	25.4	32	32
Insertion length of workpiece into spindle	mm	80	120	120	120	120
Max. standard length of workpiece	mm	90	120	120	120	120
Spindle rotation speed	rpm	0-15,000	0-10,000	0-10,000	0-8000	0-8000
Spindle power	kW	4.0 (5.0)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)
Max. torque	Nm	12	26	26	26	26
Number of tool positions next to the counter spindle			2	2	2	2

TECHNICAL SPECIFICATIONS

		Swiss GT 13/6	Swiss GT 26/6	Swiss GT 26B	Swiss GT 32/6	Swiss GT 32B
<b>Counter operation</b>						
Number of tool positions		8	8	8	8	8
Positions for rotating tools		4	4	4	4	4
Rotating tool speed of rotation	rpm	6000	6000	6000	6000	6000
Rotating tool power	kW	0.75	0.75	0.75	0.75	0.75
<b>Total number of tools</b>						
Operation/counter-operation tool distribution		30 18/12	40 27/13	36 23/13	40 27/13	36 23/13

**Axis speed**

Rapid feed rate	m/min	32	35	35	35	35
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BASIC MACHINE EQUIPMENT

Rotating guide bush with integrated motor	●	●	●	●	●
Machining without guide bush	●	●	●	●	●
S21 rear platten rotating tool motor	●	●	●	●	●
S11 front platten rotating tool motor	●	●	●	●	●
S51 rotating tool motor in counter-operation	●	●	●	●	●
C1 + C4 axes	●	●	●	●	●
Interpolation in polar coordinates	○	○	○	○	○
Pneumatic workpiece ejector + oil cleaning of collet	●	●	●	●	●
Automatic centralised lubrication cycle	●	●	●	●	●
Stack light (4 colours)	●	●	●	●	●
20-bar lubrication pump with manual selection of filters	●	●	●	●	●
Bar feeder interface	●	●	●	●	●
Fire extinguisher interface	●	●	●	●	●
TISIS programming software	○	○	○	○	○
Machining along 5 simultaneous axes	—	—	○	—	○

**Numerical control**

Control type	Fanuc 31iB	Fanuc 31iB	Fanuc 31iB*	Fanuc 31iB	Fanuc 31iB*
Encoder/axis motor technology	Absolute serial				
Motor type (axes and guide bush)	Synchronous (AC)				
Motor type (spindles)	Asynchronous (AC)				
Colour screen and mobile operator console					

\* Fanuc 31iB - 5 with machining option for 5 simultaneous axes

**Programming software**

ISO language code C, TMI

**General specifications**

Max. length	mm	2170	2710	2710	2710	2710
Max. width	mm	1140	1270	1270	1270	1270
Height	mm	1890	1990	1990	1990	1990
Weight	kg	2800	3550	3550	3550	3550
Cutting oil tray capacity	l	200	200	200	200	200
Coolant pump power	kW	0.44	0.79	0.79	0.79	0.79
Colours RAL 9006 grey, RAL 9011 black						
CE/EMC certified						

● Standard   ○ Optional   — Not available

We keep you turning

TORNOS

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Tornos  
throughout  
the world



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