

TORNOS

TORNOS
Swiss GT 32

*Your advanced
machining solution*

Swiss GT Range

Swiss GT

Highly efficient production of even the most complex parts, thanks to unique B-axis technology, available on the Swiss GT 26 and Swiss GT 32, is a hallmark of Tornos' Swiss GT family of automatic turning machines. 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 drive your successful production of long and short turned parts, thanks to the bushless working kit available as standard, making it a reliable, easy-to-use all-rounder.

Spindle and counter-spindle offering the same power, torque and clamping forces to facilitate balancing of operations and programming.

Machine offers a high level of autonomy, different options are available to increase this autonomy when needed (Chip conveyors, oil mist extractor, part reception devices and bar feeders).

Modular machining area enabling rotating tools to be fitted according to the requirements of the workpiece.



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

Swiss GT 13

Efficient, versatile and easy to use

Up to 40 tools, including 14 rotating tools, on the Swiss GT 26 and Swiss GT 32; up to 30 tools, including 12 rotating tools, on the Swiss GT 13.

The combination of Tornos' TMI system and Tornos' TISIS programming system ensures easy machine programming in ISO language and minimizes idle time.

Liquid-cooled built-in motorized guide bush with synchronous motor.

Works with or without a guide bush.

Large machining area giving good access to tooling and chip flow.

Machining in main operation and secondary operations can be carried out simultaneously.



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

Swiss GT 26

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

Swiss GT 32

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

The Swiss GT range is your dream partner, able to provide you with the solution you need, precisely when you need it, year in, year out. Minimise your cycle times whilst machining within narrow tolerances and benefiting from an excellent standard of surface finish.

The generous number of tools enables highly complex parts to be finished on this machine with ease.



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

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.)



4,58 mm



10,8 mm



Titanium

Versatility to meet any challenge

15-minute machine conversion

Reliable, flexible and easy to use, the Swiss GT range helps you make substantial improvements to your productivity. The line's advanced technical features and six-axis kinematics make it ideal for all your manufacturing challenges. With their very dense tooling capacity, these machines enable you to produce the most complex parts on the market. The various machines feature a modular tooling position that puts you on the fast track to advanced operations, including thread whirling, polygonal milling and angular milling.

The Swiss GT 26 and Swiss GT 32 share the same kinematics and the same tool holders. However, they are very different machines: for example, the Swiss GT 32 boasts more powerful spindles, developing a much greater torque to allow the toughest of materials to be machined with ease. The ballscrews and guides, already larger on the Swiss GT 26, have all been reinforced and optimised to ensure exceptional performance when machining large diameters.

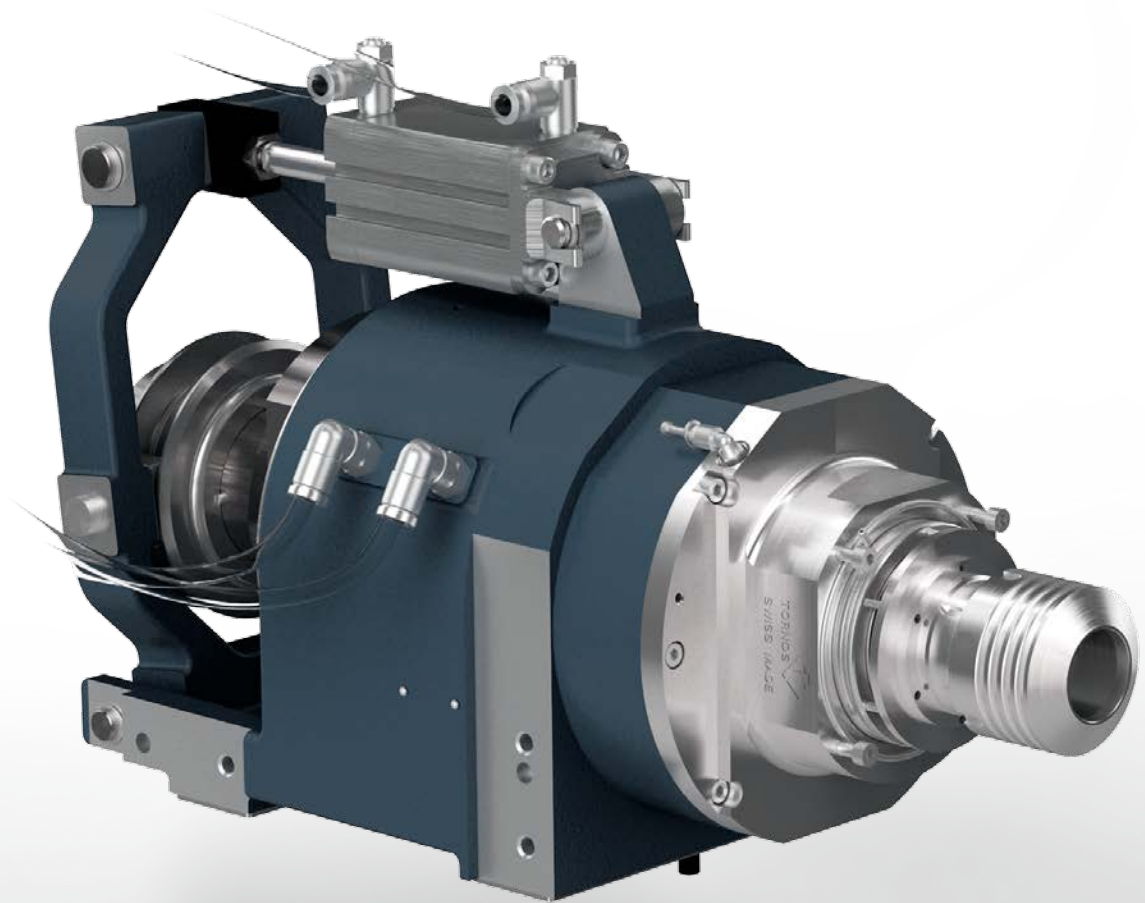
The Swiss GT 32 is an efficient and powerful solution, even at its limits. Extending an already impressive flexibility, both the Swiss GT 26 and the Swiss GT 32 can be equipped with a B axis, featuring a patented modular position which enables a fourth rotating spindle or thread whirler to be installed. B axis machines can also be configured for machining on 5 simultaneous axes.

The rotating tools mounted on the B axis machine in coordination with the C axis, delivering the ability to cut both precise angles and sculpted contours. This feature transforms this Swiss-type lathe into a high-performance, multitasking turning center that can easily be programmed through our TISIS CAM solution. Both spindles feature the same power in main and counter operations. That means you can program your parts with greater freedom: heavy jobs no longer have to be machined in main operations.

Machining with 5 simultaneous axes

Built for speed

Up to 35 m/min.



Taking your turning operation to the next level. Versatility, high performance in value-added operations, and ability to work with or without a guide bush make the Swiss GT 26 and Swiss GT 13 comprehensive bar turning solutions. Your result: easy production of complex parts at a competitive price.

Everything goes fast. You achieve highest precision and gain precious seconds, thanks to the motorized guide bush supported by the Swiss GT's liquid-cooled, 15,000 rpm motor spindle.*

The direct rotary drive guide bush provides high-speed, accurate machining to reduce your cycle time.

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, the Swiss GTs can be converted into guide bushless machines in less than 15 minutes. A handy support for your guide bush can be found right next to the spindle – no cable disconnection required.

Liquid-cooled spindles

You enjoy a high level of autonomy with the Swiss GT family, thanks to our strong focus on ergonomics. The swarf container can be emptied while the machine is running, and the well-lighted and accessible machining area allows very fast setup change over. The numerical control on the swivel arm and the handy toolbox are additional advantages that can't be overlooked.

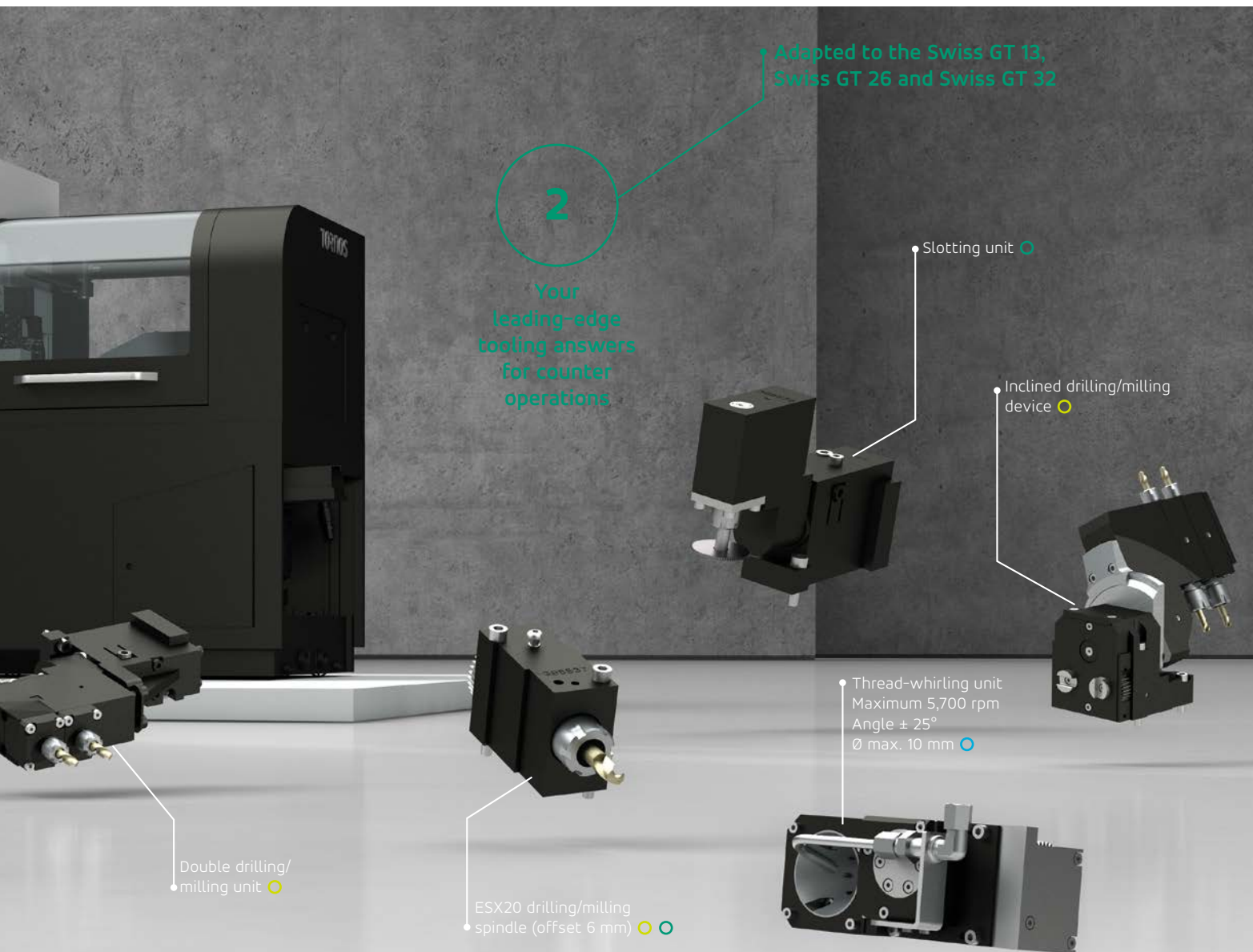
8K and 15K rpm top speed



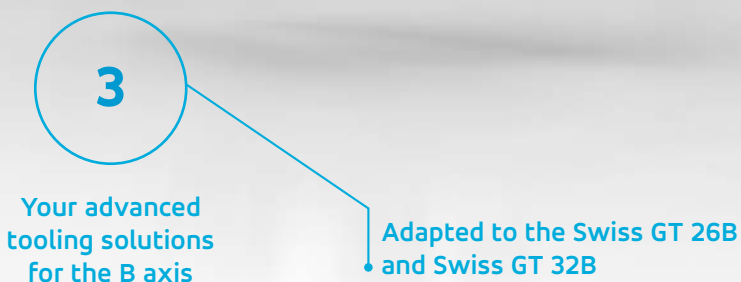
• Conquer new markets and new materials thanks to the flexibility and performance offered by the Swiss GT. Take advantage of the quickest guide bushing conversion on the market!

Exceptional machining performance





For example, a polygon cutter can smoothly be attached both on a Swiss DT 26 and on a Swiss GT 26 without any adaptation. This advantage should not be underrated as it allows flexibility while limiting the required investment. Moreover, thanks to the TISIS software, it is very easy to identify the various possibilities offered by the machine pool of each user.





S11

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 back operation) to drive numerous rotating tools. A modular position is available to accommodate the addition of special attachments. The rotating tools on the rear platen and the counter operation station are easily exchangeable and compatible with the Swiss GT 26 and the Swiss GT 32.

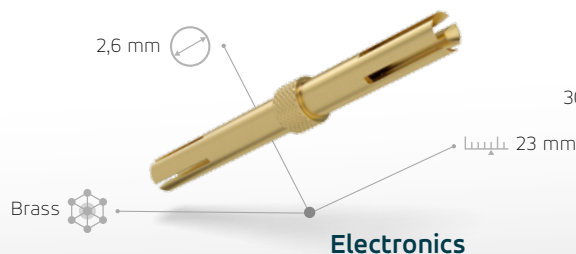
Leading-edge tooling for counter operations

S51

Y4

2

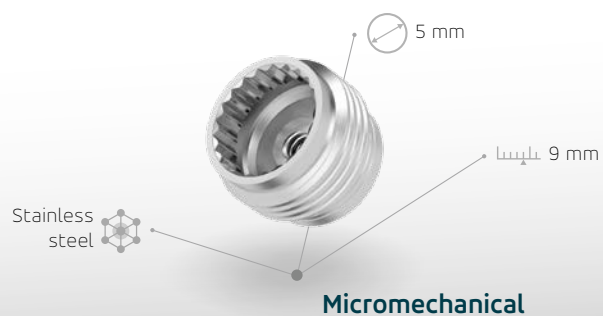
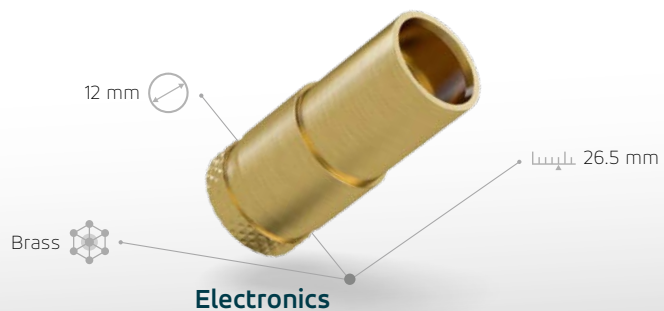
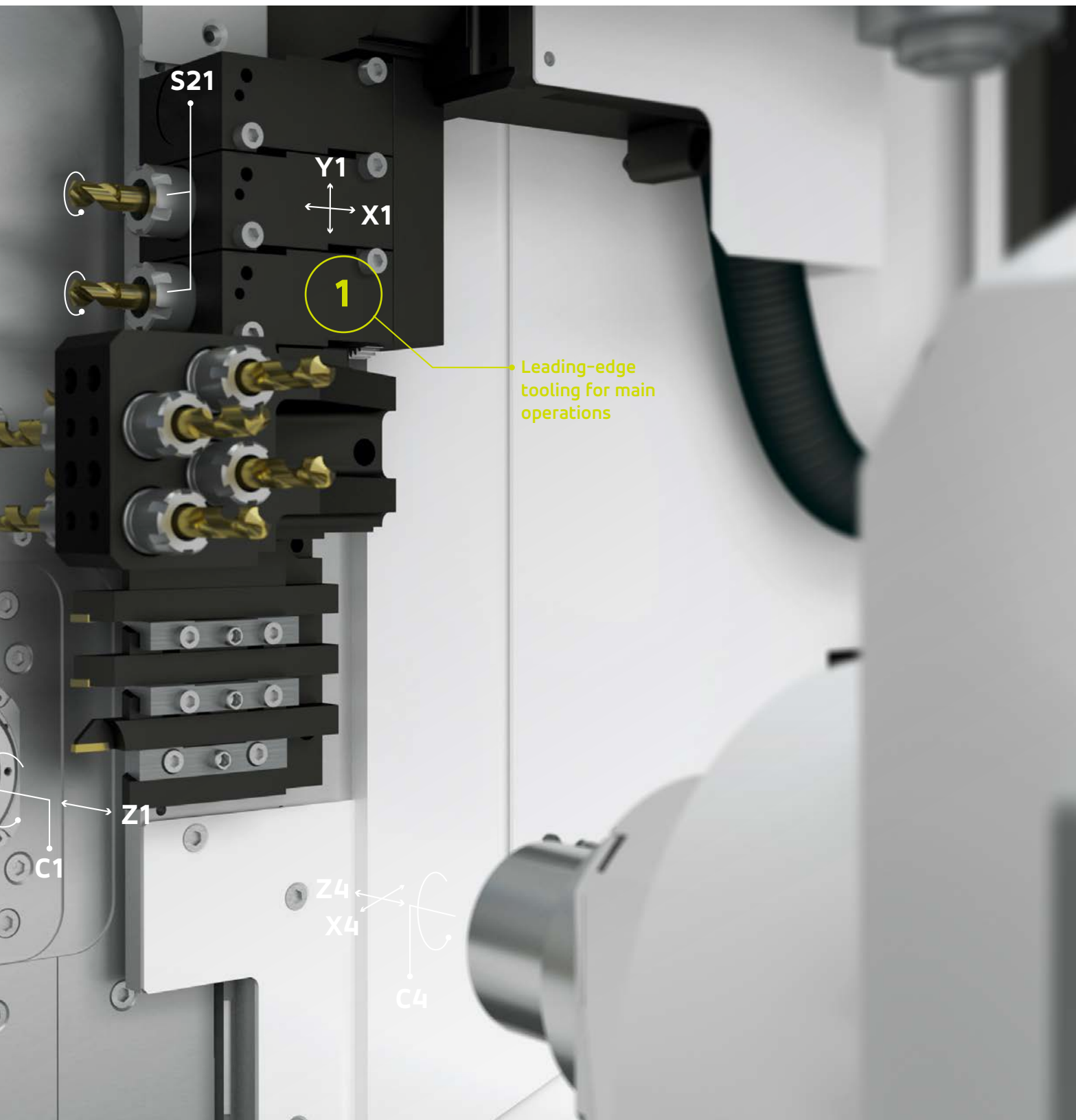
Productive and flexible, Swiss GT 13 allows you to consider all types of machining.



Electronics



Medical & Dental



S11

Swiss GT 32 and Swiss GT 26

Up to 40 tools,
including
14 rotating tools

Like the Swiss GT 13, they are equipped with three motors (two on the platten and one for back operation) to drive numerous rotating tools. The position on the rear platten is modular, allowing the machine to receive special attachments. The rotating tool holders on the rear platten and the counter operation station are easily exchangeable and compatible with Swiss GT 13.

Leading-edge
tooling for
counter
operations

S51

2

Y4

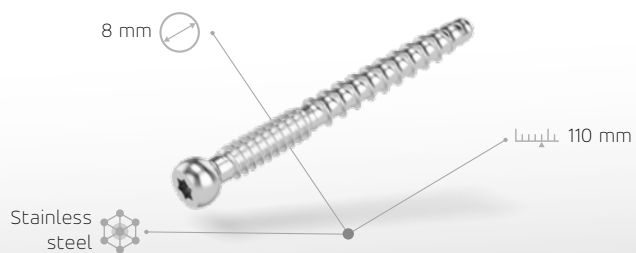
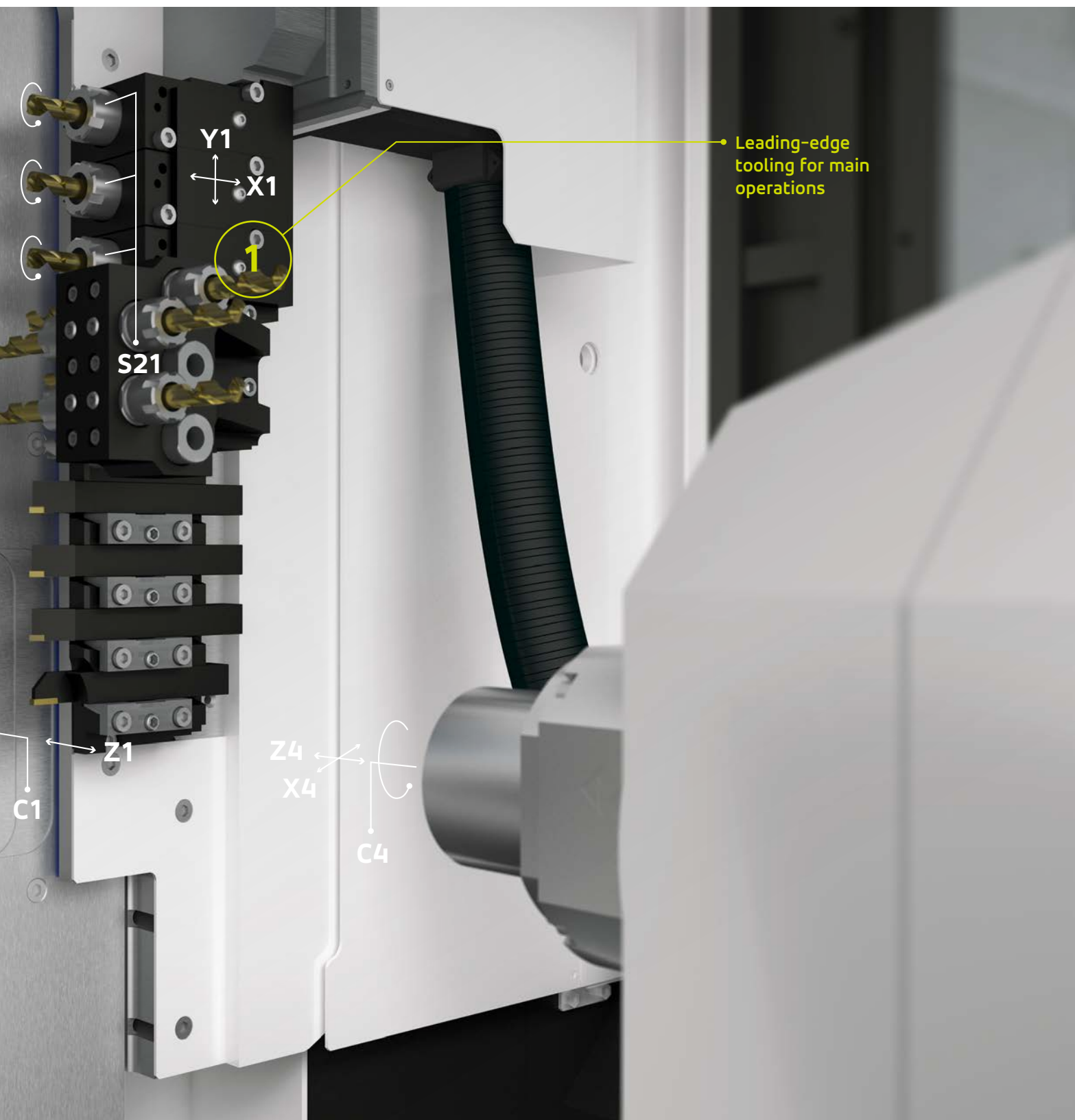
*In line with
market realities,
Swiss GT 26 and
Swiss GT 32 allow
you to benefit
great versatility.*

49 mm

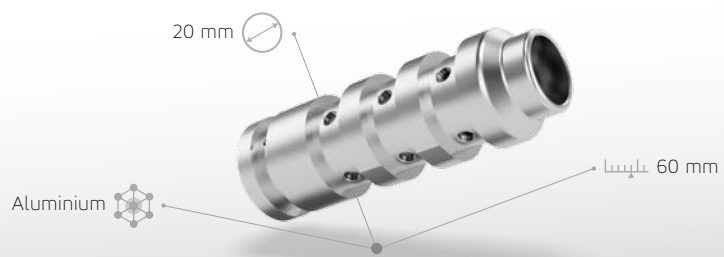
16 mm

Stainless
steel

Automotive



Medical & Dental



Automotive

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 9,000 rpm. The last rotating position is modular and can accommodate a thread whirler. It is also possible to install a fixed tool station.

S51

2

Y4

Leading-edge tooling for
counter operations

S11

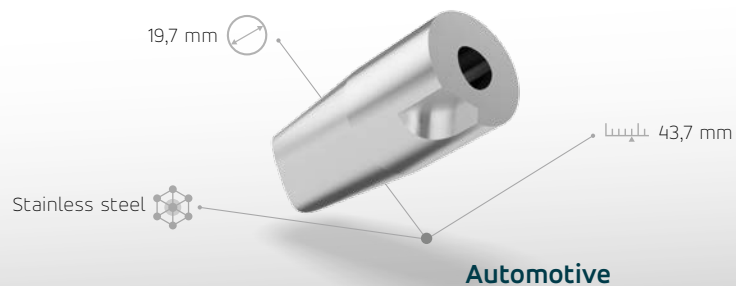
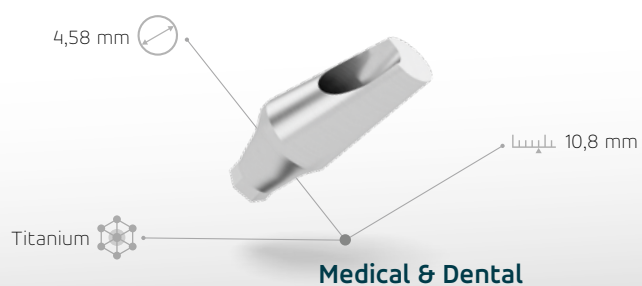
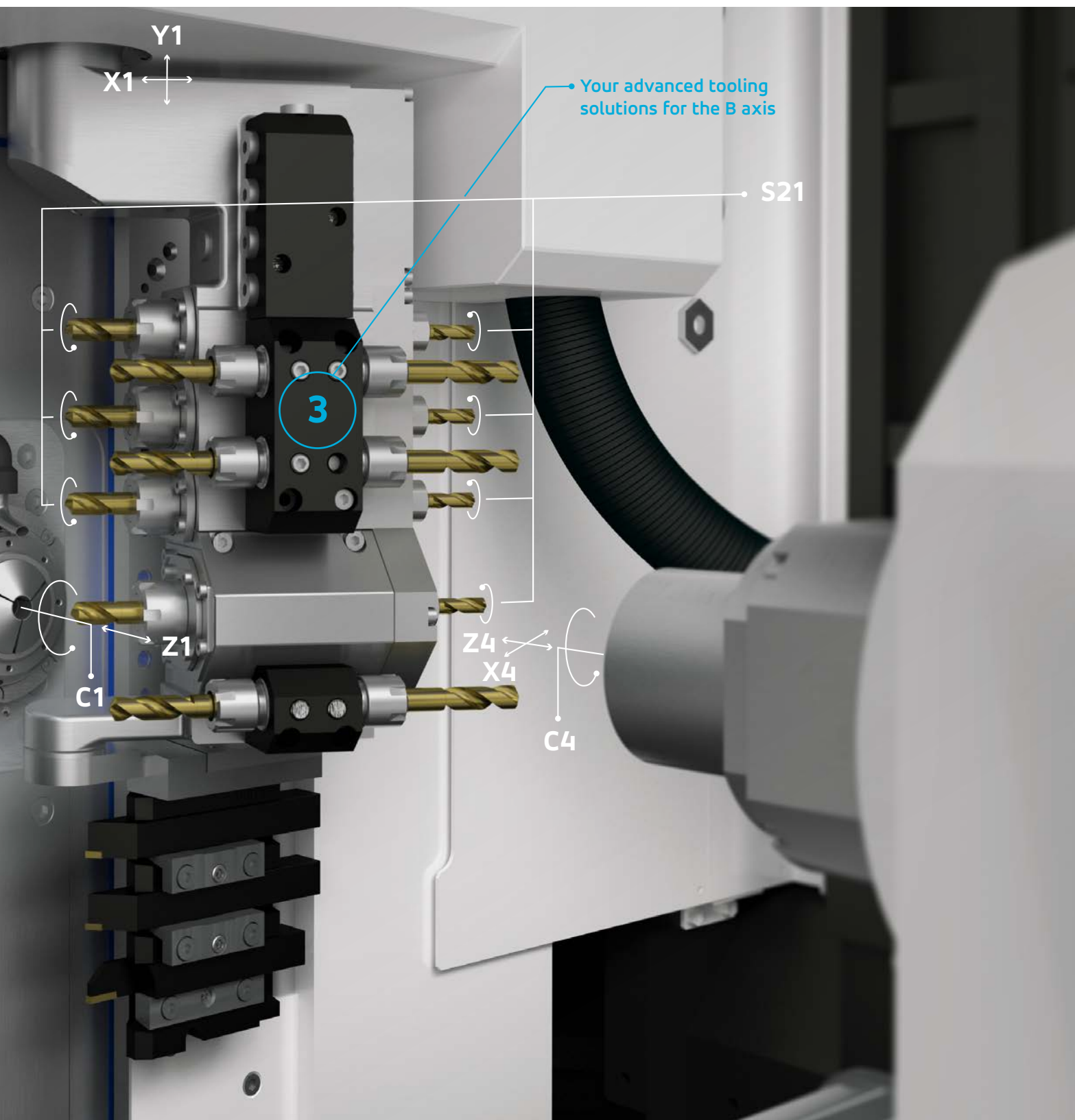
15 mm

12 mm

Steel

Electronics

*High performance
by Tornos*





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 color 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 optimize the process. As an option it is also possible to use our smart TISIS CAM solution is designed to help you master your Tornos machine when it comes to complex and very complex parts. TISIS CAM reduces startup time significantly and, coupled with TISIS, it is the perfect solution for efficiently programming and optimizing 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

Backed by both geographical proximity to customers and a keen 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.

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

Situated close to its customers, as demonstrated by the 12 Tornos Service Centers strategically located across Europe, Asia, and the Americas, Tornos Service offers a full continuum of authoritative support 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 Centers, 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 percent 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 specialty 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

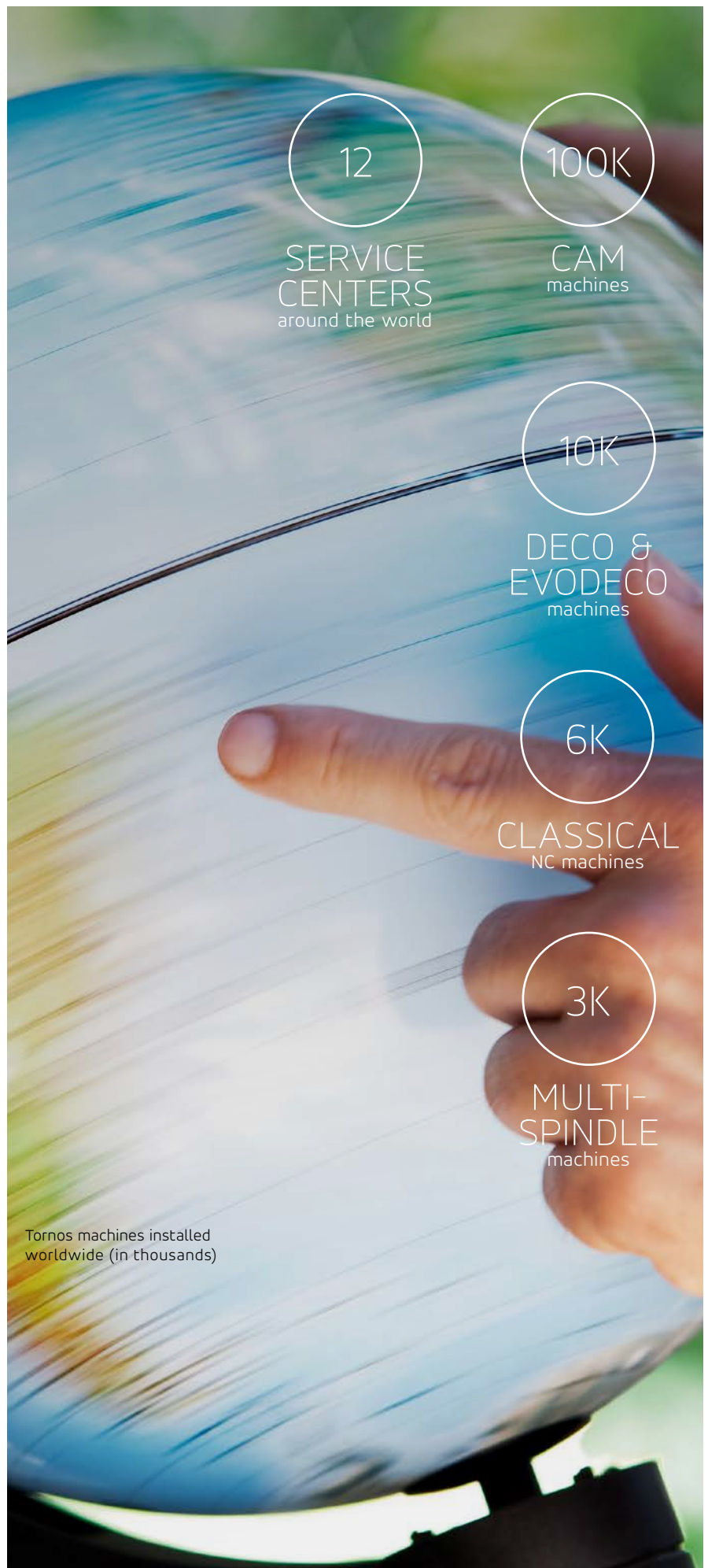
Tornos machines inspire confidence. It's no surprise, therefore, that many customers turn to Tornos for a complete overhaul of their machines. The Tornos overhaul service returns the machines in good-as-new condition, appreciably extending their service life.

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.



Discover
Tornos Service



Technical specifications



TECHNICAL SPECIFICATIONS

Main spindle

Max. bar capacity	mm
Standard workpiece length with rotating guide bush	mm
Spindle rotation speed	rpm
Spindle power	kW
Max. torque	Nm

Platten

Max. number of turning tools	
Turning tool section	
Number of frontal tools (op/cop)	
Positions for rotating tools (S11)	
Positions for rotating tools (S21 modular positions)	
Rotating tool speed of rotation	rpm
Rotating tool power (S11/S21)	kW

B-axis

Number of rotating tool positions S21 (op/cop)	
Number of fix frontal tools (op/cop)	
HF spindle	
Thread whirling device	
Rotating tool speed of rotation	rpm
Rotating tool power (S11/S21)	kW

Counter spindle

Max. bar capacity	mm
Insertion length of workpiece into spindle	mm
Max standard output length of workpiece	mm
Spindle rotation speed	rpm
Spindle power	kW
Max. torque	Nm
Number of tool positions next to the counter spindle	



Swiss GT 13/6	Swiss GT 26/6	Swiss GT 26B	Swiss GT 32/6	Swiss GT 32B
6 linear axes + 2 C-axis	6 linear axes + 2 C-axis	6 linear axes + 2 C-axis + 1 B-axis	6 linear axes + 2 C-axis	6 linear axes + 2 C-axis + 1 B-axis
2 independent tool systems	2 independent tool systems	2 independent tool systems	2 independent tool systems	2 independent tool systems
10 (13)	23 (25.4)	23 (25.4)	32	32
190	220	220	200	200
0-15,000	0-10,000	0-10,000	0-8,000	0-8,000
4.0 (5.0)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)
12	26	26	26	26
8	9	8	9	8
12 x 12	16 x 16	16 x 16	16 x 16	16 x 16
4/4	5/(5)		5/(5)	
3	4	4	4	4
2	3			
6000 (10000)	6000	6000	6000	6000
1	1	1	1	1
		4/4		4/4
		4		4
		Option		Option
		Option		Option
		9000		9000
		1		1
13	25.4	25.4	32	32
80	120	120	120	120
90	120	120	120	120
0-15,000	0-10,000	0-10,000	0-8,000	0-8,000
4.0 (5.0)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)	8.2 (10.5)
12	26	26	26	26
	2	2	2	2

TECHNICAL SPECIFICATIONS

Counter operation

Number of tool positions	
Positions for rotating tools	
Rotating tool speed of rotation	rpm
Rotating tool power	kW

Total number of tools

Operation/counter-operation tool distribution

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
Beacon (4 colour)
20 bar coolant pump with manual selection filters
Bar feeder interface
Fire extinguisher interface
TISIS programming software
Simultaneous 5-axis machining

Numerical control

Control type
Encoder/axis motor technique
Motor type (axes and guide bush)
Motor type (spindles)
Colour screen and mobile operator console

* Fanuc 311B-5 with option simultaneous 5-axis machining

Programming software

ISO language code C, TMI

General specifications

Max. length	mm
Max. width	mm
Height	mm
Weight	kg
Cutting oil tray capacity	l
Coolant pump power	kW
Colours RAL 9006 gris, RAL 9011 noir	
CE/CEM certified	

● Standard ○ Optional — Not available

Swiss GT 13/6	Swiss GT 26/6	Swiss GT 26B	Swiss GT 32/6	Swiss GT 32B
8	8	8	8	8
4	4	4	4	4
6000	6000	6000	6000	6000
0.75	0.75	0.75	0.75	0.75
30	40	36	40	36
18/12	27/13	23/13	27/13	23/13

●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
○	○	○	○	○
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
○	○	○	○	○
—	—	○	—	○

Fanuc 31iB	Fanuc 31iB	Fanuc 31iB*	Fanuc 31iB	Fanuc 31iB*
Absolute serial	Absolute serial	Absolute serial	Absolute serial	Absolute serial
Synchronous (AC)	Synchronous (AC)	Synchronous (AC)	Synchronous (AC)	Synchronous (AC)
Asynchronous (AC)	Asynchronous (AC)	Asynchronous (AC)	Asynchronous (AC)	Asynchronous (AC)

2170	2710	2710	2710	2710
1140	1270	1270	1270	1270
1890	1990	1990	1990	1990
2800	3550	3550	3550	3550
200	200	200	200	200
0.44	0.79	0.79	0.79	0.79

We keep you turning

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Tornos
throughout
the world



Conforms to the European CE / CEM Safety Standards

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