



THINK PARTS THINK TORNOS



Swiss GT 26 / Swiss GT 13

Your advanced machining solution.

# SWISS GT 26 / SWISS GT 13

## Efficient, versatile and easy to use

Highly efficient production of even the most complex parts, thanks to unique B-axis technology, is a hallmark of Tornos' Swiss GT family of automatic turning machines. Available in two diameters—25.4 mm for the Swiss GT 26 mm and 13 mm for the Swiss GT 13—the line is specifically designed to drive your successful production of long and short turned parts, making it a reliable, easy-to-use all-rounder that allows you to achieve measurable production improvements. The line's advanced technical features and efficient six-axis kinematics make it ideal for a variety of manufacturing challenges.

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

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)



### Swiss GT 26

- Maximum diameter: 25.4 mm
- Linear axes: 6
- C axes: 2
- B axis: option
- Maximum number of tools: 40
- Maximum number rotating tool: 14

# SWISS GT 26 / SWISS GT 13

Up to 40 tools, 14 of which rotate, on the Swiss GT 26; up to 30 tools, 12 of which rotate, on the Swiss GT 13

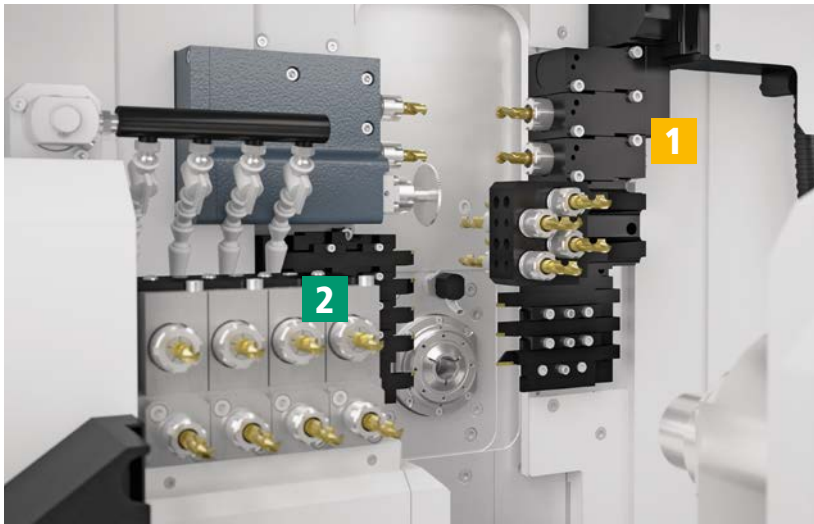
The combination of Tornos' TMI system and Tornos' TISIS programming system ensures easy machine programming in ISO language and minimizes idle time



## Swiss GT 13

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

# SWISS GT 26 / SWISS GT 13



Swiss GT 13/6



Swiss GT 26/6

## Versatility to meet any challenge

With their very dense tooling capacity, these machines position you to tackle the market's most complex parts. Both machines feature a modular tooling position that puts you on the fast track to advanced operations, including thread whirling, polygonal milling and angular milling.

Extending an already impressive flexibility, the Swiss GT 26 can be equipped with a B axis, featuring a patented modular position. As you have come to expect from Tornos machines, 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.

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### Your leading-edge tooling answers for main operations



Polygon unit maximum 6,000 rpm  
Polygon tool Ø 80 mm

1 2

### Your key tooling solutions for main and counter operations



Rotating spindle for milling  
(63 mm saw)

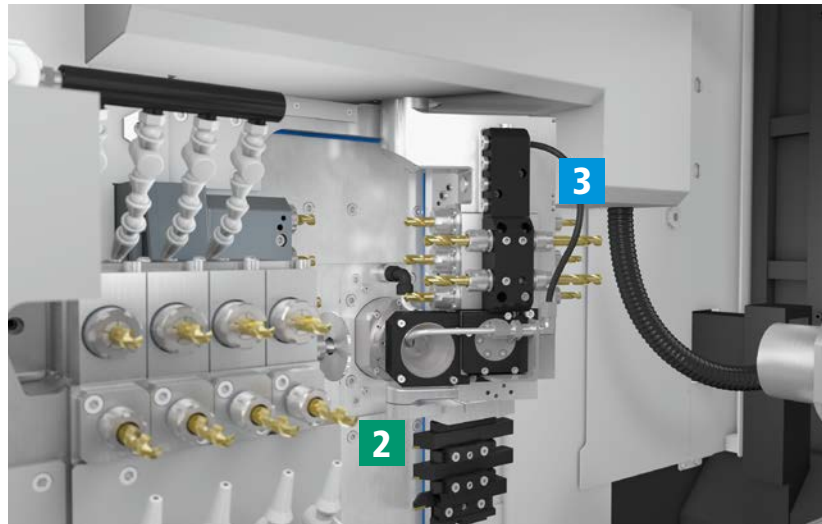
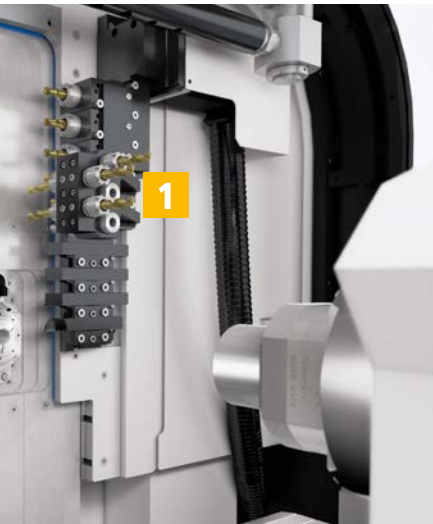
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### Your advanced tooling solutions for B axis



Double drilling/milling spindle for B axis

# SWISS GT 26 / SWISS GT 13



Swiss GT 26 with B axis: Machining of highly complex parts made easy



Thread-whirling unit  
Maximum 5,700 rpm  
Angle  $\pm 25^\circ$   $\varnothing$  max. 10 mm



Double drilling/milling unit



Inclined drilling/milling device



ESX20 drilling/milling spindle  
(offset 6 mm)



ESX20 drilling/milling spindle  
(offset 15 mm)

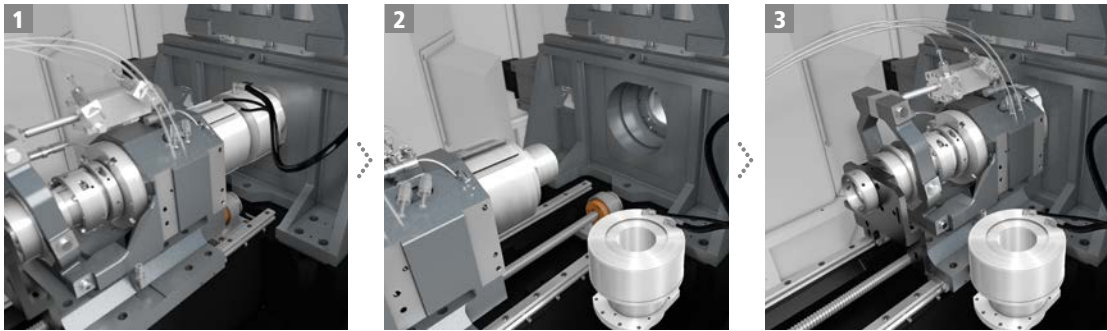


Slotting device



Thread-whirling unit  
for B axis

# SWISS GT 26 / SWISS GT 13



Support for guide bush, no disconnection of wiring

**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 solutions. Your result: easy production of complex parts at a competitive price.**

### **Built for speed**

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.

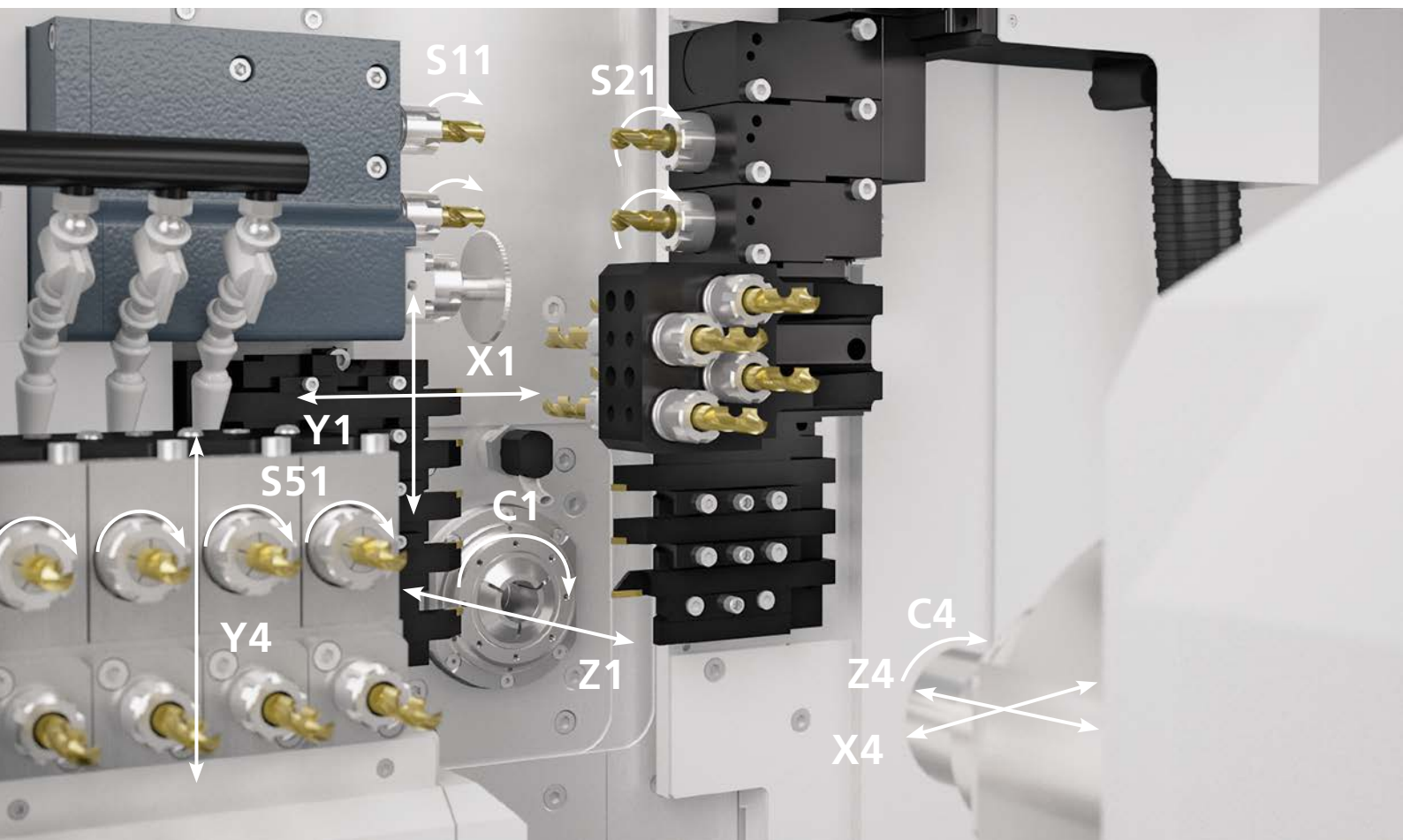
### **A complete solution to tackle every demand**

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.

### **Engineered for best ergonomics**

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.

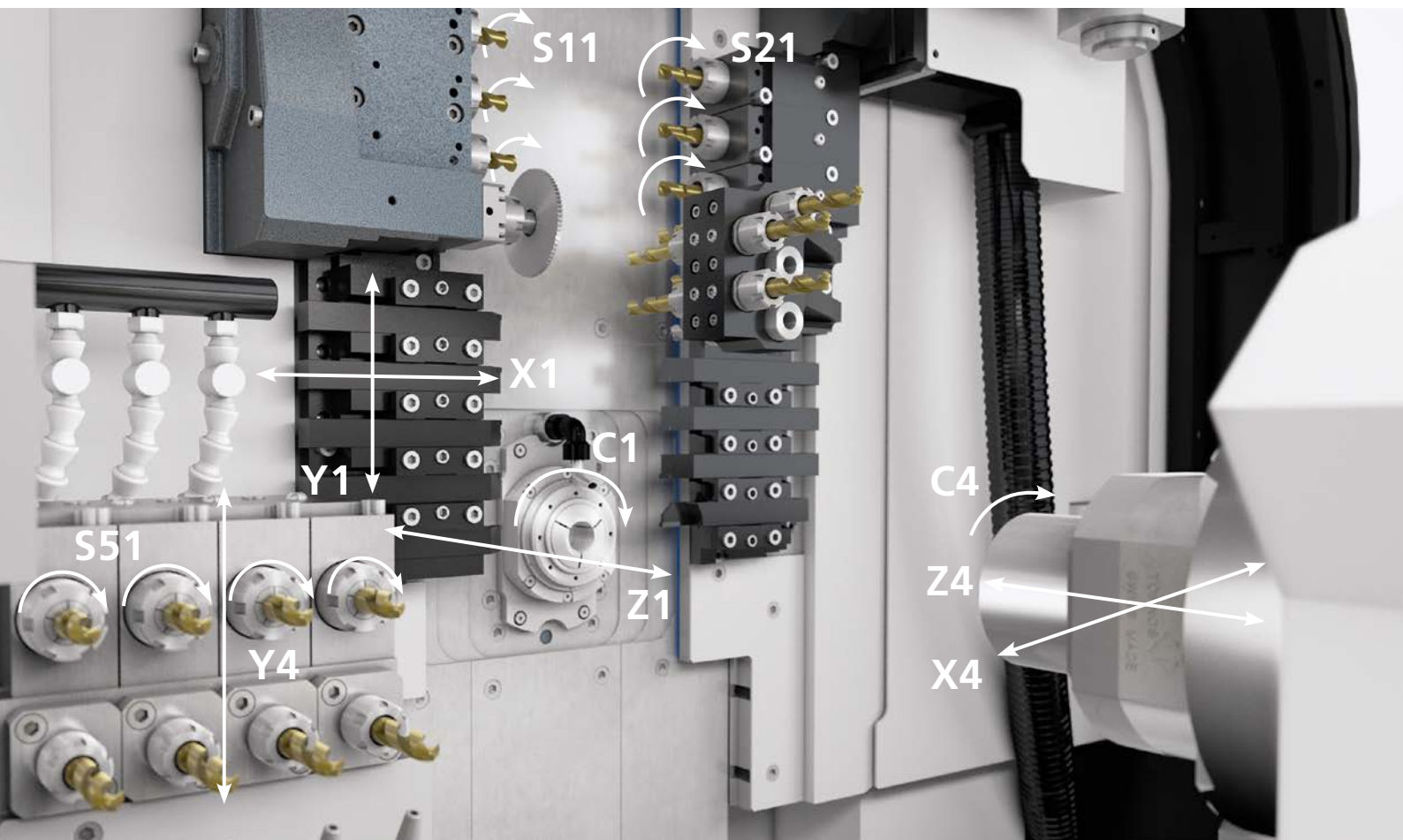
\*Swiss GT 13



## Up to 30 tools, including 12 rotating tools

The Swiss GT 13 is equipped with three motors (two on the platten 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 platten and the counter operation station are easily exchangeable and compatible with the Swiss GT 26.

# SWISS GT 26 EXCEPTIONAL MACHINING PERFORMANCE

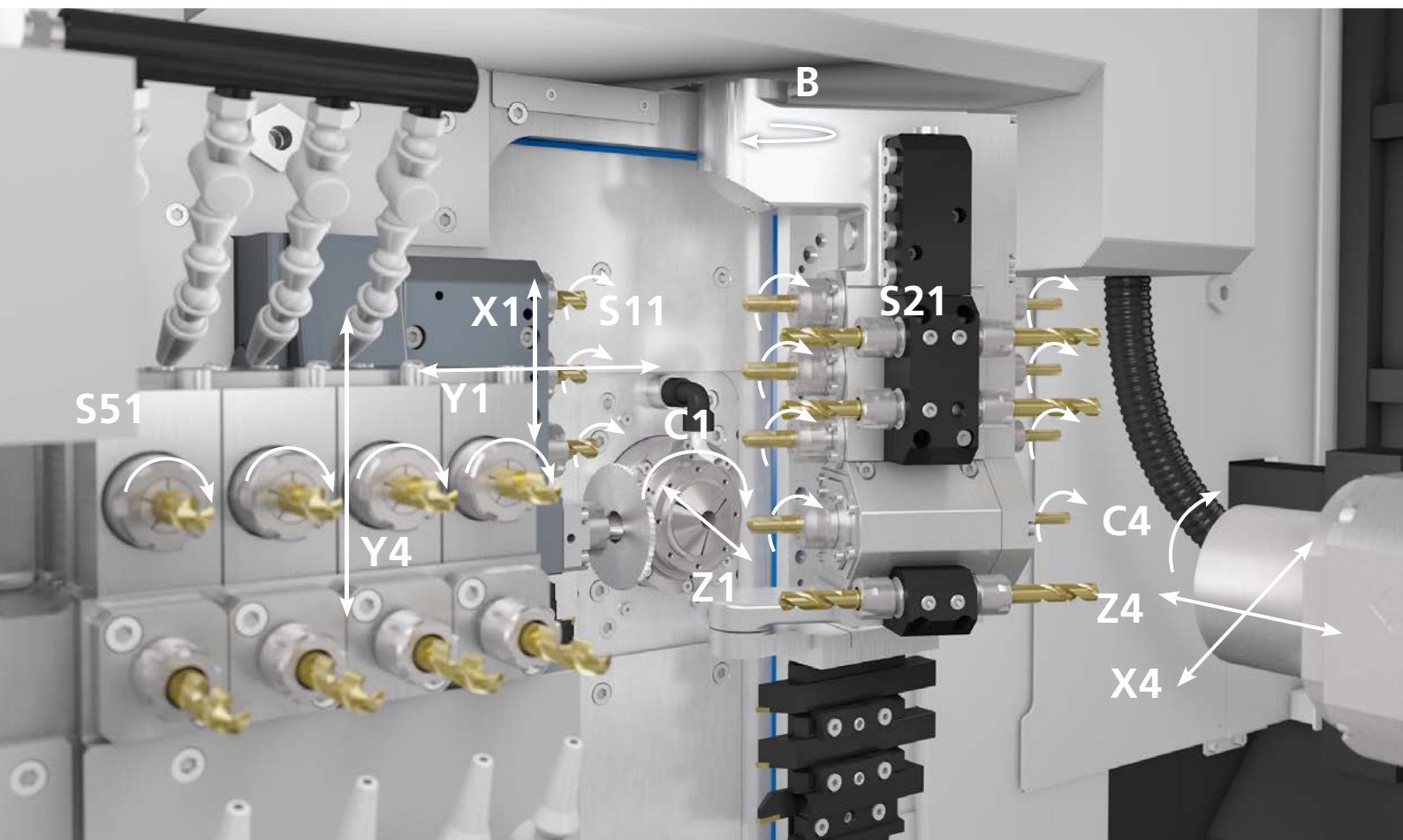


## **Up to 40 tools, including 14 rotating tools**

The Swiss GT 26, like the Swiss GT 13, is 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 tools on the rear platten and the counter operation station are easily exchangeable and compatible with Swiss GT 13.





**Swiss GT 26 B: Machining of highly complex parts made easy**

The innovative design of the Swiss GT 26 B accommodates 2x4 rotating spindles with a spindle speed of up to 9,000 rpm. This high-speed driven tool station incorporates a 1 kW spindle motor for machining difficult-to-cut materials and conducting heavy roughing processes. Furthermore, the kinematics of the new Swiss GT 26 B provide the facility for 2x4 fixed front tool stations, ensuring that virtually any angle can be indexed or processed by the numerical control (NC) programs.

**Up to 36 tools, including 16 rotating tools**

The Swiss GT 26 B features a B axis that includes up to four rotating tools in main operation and the same amount for working in counter operation. It includes a modular position that can accommodate a thread whirler. In addition four fixed positions or high-frequency spindles can be added to this device. The B axis appreciably extends the Swiss GT 26's capabilities, allowing it to tackle almost any part.

# TISIS: PROGRAMMING AND COMMUNICATING WITH YOUR SWISS GT MACHINE

## **TISIS: 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—and that's not all. It enables you to assess each machine's options, reduces the risk of collisions and 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 inventory, 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 attractive, readable Gantt diagram, making it easy for you to see the critical path and react quickly to optimize the process.

At the same time, TISIS takes the complexity out of process monitoring. 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 allows you to quickly transfer your programs by USB key or directly onto the machine. Your parts designs in various stages of completion can be stored with your program and your parts are easily retrieved from the database.

\* Requires the connectivity pack



# HIGH PRECISION



Stainless steel  
External diameter: 5 mm  
Workpiece length: 9 mm



Steel  
External diameter: 15 mm  
Workpiece length: 12 mm



Titanium  
External diameter: 4.58 mm  
Workpiece length: 10.8 mm



Brass  
External diameter: 5.6 mm  
Workpiece length: 30 mm



Stainless steel  
External diameter: 8 mm  
Workpiece length: 30 mm



Aluminium  
External diameter: 20 mm  
Workpiece length: 60 mm



Brass  
External diameter: 1.6 mm  
Workpiece length: 35 mm



Stainless steel  
External diameter: 8 mm  
Workpiece length: 110 mm



Stainless steel  
External diameter: 16 mm  
Workpiece length: 49 mm

# SWISS GT 26

## TECHNICAL CHARACTERISTICS

TECHNICAL SPECIFICATIONS	SWISS GT 26/6		SWISS GT 26 B	
		6 linear axes + 2 C-axis	6 linear axes + 2 C-axis + 1 B-axis	
		2 independent tool systems	2 independent tool systems	
<b>Main spindle</b>				
Max. bar capacity	mm	23 (25.4)		23 (25.4)
Standard workpiece length with rotating guide bush	mm	220		220
Spindle rotation speed	rpm	0-10,000		0-10,000
Spindle power	kW	8.2 (10.5)		8.2 (10.5)
Max. torque	Nm	26		26
<b>Platten</b>				
Max. number of turning tools		10		10
Turning tool section		16 x 16		16 x 16
Number of frontal tools (op/cop)		5 / (5)		
Positions for rotating tools (S11)		4		4
Positions for rotating tools (S21 modular positions)		3		
Rotating tool speed of rotation	rpm	5000		5000
Rotating tool power (S11 / S21)	kW	0.75 / 1		0.75
<b>B-axis</b>				
Number of rotating tool positions S21 (op / cop)				4 / 4
Number of fix frontal tools (op / cop)				4
HF spindle				Option
Thread whirling device				Option
Rotating tool speed of rotation	rpm			9000
Rotating tool power (S11 / S21)	kW			0.75 / 1
<b>Counter spindle</b>				
Max. bar capacity	mm	25.4		25.4
Insertion length of workpiece into spindle	mm	120		120
Max standard output length of workpiece	mm	120		120
Spindle rotation speed	rpm	0-10,000		0-10,000
Spindle power	kW	8.2 (10.5)		8.2 (10.5)
Max. torque	Nm	26		26
Number of tool positions next to the counter spindle		2		2
<b>Counter operation</b>				
Number of tool positions		8		8
Positions for rotating tools		4		4
Rotating tool speed of rotation	rpm	5000		5000
Rotating tool power	kW	0.75		0.75
<b>Total number of tools</b>				
		40		36
Operation / counter-operation tool distribution		27/13		23/13

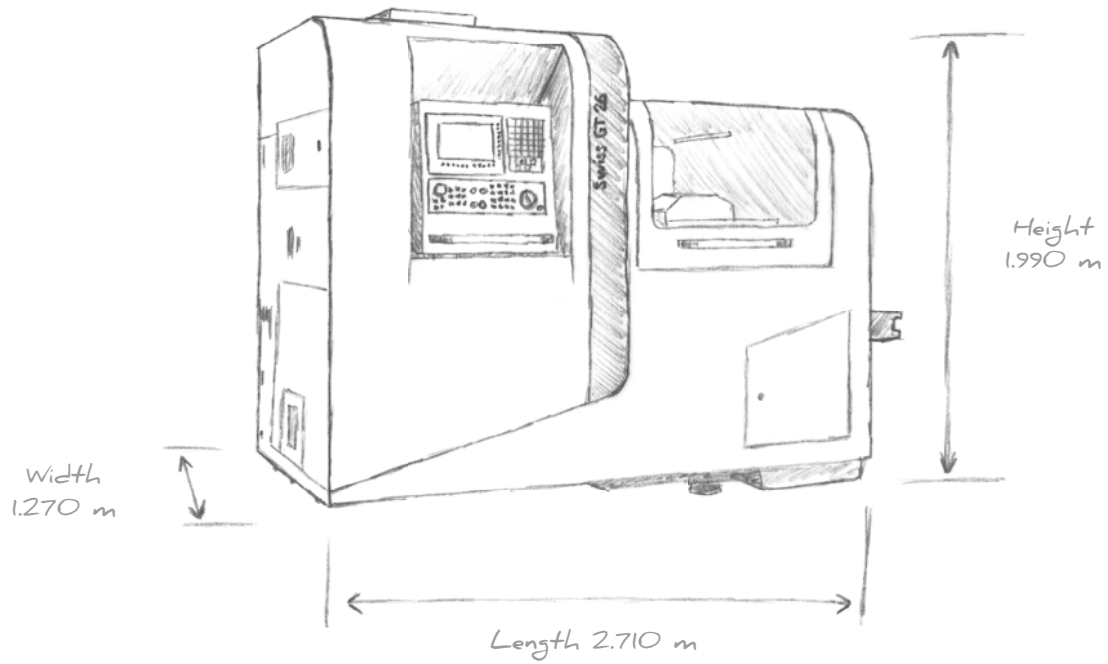
# SWISS GT 26

## TECHNICAL CHARACTERISTICS

TECHNICAL SPECIFICATIONS	SWISS GT 26/6	SWISS GT 26 B
	6 linear axes + 2 C-axis	6 linear axes + 2 C-axis + 1 B-axis
	2 independent tool systems	2 independent tool systems
<b>BASIC MACHINE EQUIPMENT</b>		
Rotating guide bush with integrated motor	X	X
Machining without guide bush	X	X
S21 rear platten rotating tool motor	X	X
S11 front platten rotating tool motor	X	X
S51 rotating tool motor in counter-operation	X	X
C1 + C4 axes	X	X
Interpolation in polar coordinates	Option	Option
Pneumatic workpiece ejector + oil cleaning of collet	X	X
Automatic centralised lubrication cycle	X	X
Beacon (4 colour)	X	X
20 bar lubrication pump with manual selection filters	X	X
Bar feeder interface	X	X
Fire extinguisher interface	X	X
TISIS programming software	Option	Option
<b>NUMERICAL CONTROL</b>		
Control type	Fanuc 31iB	Fanuc 31iB
Encoder / axis motor technique	Absolute serial	Absolute serial
Motor type (axes and guide bush)	Synchronous (AC)	Synchronous (AC)
Motor type (spindles)	Asynchronous (AC)	Asynchronous (AC)
Colour screen and mobile operator console		
<b>PROGRAMMING SOFTWARE</b>		
ISO language code C, TMI		

# SWISS GT 26

## TECHNICAL CHARACTERISTICS



GENERAL SPECIFICATIONS		SWISS GT 26	SWISS GT 26 B
Max. length	mm	2710	2710
Max. width	mm	1270	1270
Height	mm	1990	1990
Weight	kg	3550	3550
Cutting oil tray capacity	l	200	200
Coolant pump power	kW	0.44	0.44
Colours RAL 9006 grey, RAL 9011 black			
CE / CEM certified			

# SWISS GT 13

## TECHNICAL CHARACTERISTICS

### TECHNICAL SPECIFICATIONS

### SWISS GT 13/6

6 linear axes + 2 C-axis

2 independent tool systems

#### Main spindle

Max. bar capacity	mm	10 (13)
Standard workpiece length with rotating guide bush	mm	190
Spindle rotation speed	rpm	0-15,000
Spindle power	kW	4.0 (5.0)
Torque	Nm	12

#### Platten

Max. number of turning tools		8
Turning tool section		12 x 12
Number of frontal tools (op / cop)		4 / 4
Positions for rotating tools (S11)		3
Positions for rotating tools (S21 modular positions)		2
Rotating tool speed of rotation	rpm	6000 (10,000)
Rotating tool power (S11 / S21)	kW	1

#### Counter spindle

Max. bar capacity	mm	13
Insertion length of workpiece into spindle	mm	80
Max standard output length of workpiece	mm	90
Spindle rotation speed	rpm	0-15,000
Spindle power	kW	4.0 (5.0)
Max. constant torque	Nm	10 / 26

#### Counter operation

Number of tool positions		8
Positions for rotating tools		4
Rotating tool speed of rotation	rpm	6000
Rotating tool power	kW	0.75
Total number of tools		30
Operation / counter-operation tool distribution		18 / 12

# SWISS GT 13

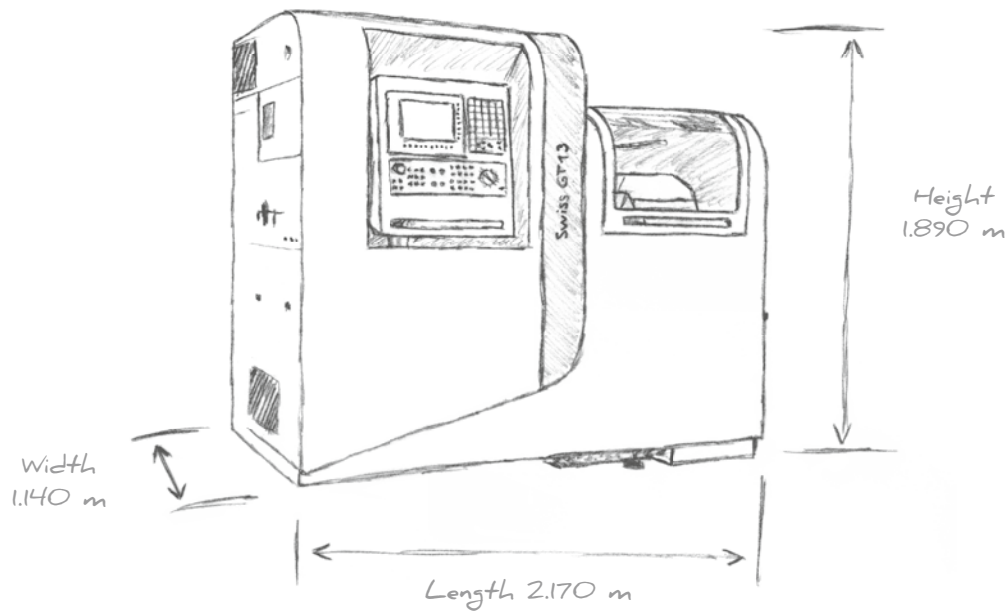
## TECHNICAL CHARACTERISTICS

<b>TECHNICAL SPECIFICATIONS</b>	<b>SWISS GT 13/6</b>
	6 linear axes + 2 C-axis
	2 independent tool systems
<b>BASIC MACHINE EQUIPMENT</b>	
Rotating guide bush with integrated motor	X
Machining without guide bush	X
S21 rear platten rotating tool motor	X
S11 front platten rotating tool motor	X
S51 rotating tool motor in counter-operation	X
C1 + C4 axes	X
Interpolation in polar coordinates	Option
Pneumatic workpiece ejector + oil cleaning of collet	X
Automatic centralised lubrication cycle	X
Beacon (4 colour)	X
20 bar lubrication pump with manual selection filters	X
Bar feeder interface	X
Fire extinguisher interface	X
TISIS programming software	Option
<b>NUMERICAL CONTROL</b>	
Control type	Fanuc 31iB
Encoder / axis motor technique	Absolute serial
Motor type (axes and guide bush)	Synchronous (AC)
Motor type (spindles)	Asynchronous (AC)
Colour screen and mobile operator console	
<b>PROGRAMMING SOFTWARE</b>	
ISO language code C, TMI	



# SWISS GT 13

## TECHNICAL CHARACTERISTICS



GENERAL SPECIFICATIONS		SWISS GT 13
Max. length	mm	2170
Max. width	mm	1140
Height	mm	1890
Weight	kg	2800
Cutting oil tray capacity	l	200
Coolant pump power	kW	0.44
Colours RAL 9006 grey, RAL 9011 black		
CE / CEM certified		

# TORNOS SERVICE

Backed by both geographical proximity to customers and a keen understanding of their processes, applications and market challenges, Tornos Service delivers unparalleled continuity 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 X-change Modules 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. Tornos Service thrives worldwide by securing the predictably high production capability of products carrying the Tornos name. Situated close to you, 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 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, electronics and connections, 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 programming, handling and maintenance experts, adding more value to your processes, applications and products.



# TORNOS SERVICE



## **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 Tornos 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, so it's no surprise that many customers turn to Tornos for complete overhaul of their workhorse machines. Tornos overhaul service returns the machines in good-as-new condition, appreciably extending their longevity.

## **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 customers' needs. Tornos' X-change Modules expand your application capabilities and profitability.

**TORNOS SA**

Rue Industrielle 111  
 CH - 2740 Moutier  
 T +41 (0)32 494 44 44  
 F +41 (0)32 494 49 03  
 contact@tornos.com  
 www.tornos.com

**TORNOS TECHNOLOGIES**
**DEUTSCHLAND GmbH**

Karlsruher Str. 38  
 D - 75179 Pforzheim  
 T +49 (0)7231 / 910 70  
 F +49 (0)7231 / 910 750  
 contact-ttd@tornos.com

**TORNOS TECHNOLOGIES**
**FRANCE**

Boîte postale 330  
 St-Pierre en Faucigny  
 F - 74807 La Roche  
 s / Foron Cedex  
 T +33 (0)4 50 038 333  
 F +33 (0)4 50 038 907  
 france.contact@tornos.com

**TORNOS TECHNOLOGIES**
**IBÉRICA**

Pol. Ind. El Congost  
 Avda. St Julià, 206 Nave 8  
 E - 08403 Granollers  
 T +34 93 846 59 43  
 F +34 93 849 66 00  
 comercial.tti@tornos.com

**TORNOS TECHNOLOGIES**
**ITALIA SRL**

Via Cesare Pavese 21  
 I - 20090 Opera / MI  
 T +39 02 57 68 15 01  
 F +39 02 57 68 15 230  
 italia.contact@tornos.com

**TORNOS TECHNOLOGIES**
**US CORPORATION**

840 Parkview Boulevard  
 US - Lombard, IL 60148  
 T +1 630 812 2040  
 F +1 630 812 2039  
 info-us@tornos.com  
 www.tornos.us

**TORNOS TECHNOLOGIES**
**UK LTD**

Tornos House  
 Whitwick Business Park  
 Coalville  
 UK - Leicestershire LE67 4JQ  
 T +44 (0) 1530 513100  
 F +44 (0) 1530 814212  
 sales@tornos.co.uk

**TORNOS TECHNOLOGIES**
**POLAND Sp. z o.o.**

Ul. Spółdzielcza 37-39  
 55-080 Kąty Wrocławskie  
 Poland  
 T +48 71 33 85 618  
 F +48 71 33 85 617  
 poland.contact@tornos.com

**TORNOS TECHNOLOGIES**
**(Shanghai) LTD**

Hui Feng Creativity Garden  
 Feng Yu Building, 1-2F  
 No. 239, Xitai Rd, Xu Hui District  
 CN - Shanghai 200232  
 T +86 21 6235 1235  
 F +86 21 6235 1938  
 china.contact@tornos.com

**TORNOS DONGGUAN OFFICE**

SE1-29, Changrong International  
 Machinery Hardware Square, No.56  
 Middle ZhenAn Road, Wusha,  
 ChangAn Town, Dongguan City,  
 Guangdong Province, 523859  
 T +86-769-8533 7266  
 F +86-769-8533 7265  
 china.contact@tornos.com

**TORNOS BEIJING OFFICE**

Rm.1706, Tower A  
 Dongyu Office Building  
 Jia #1 Shuguang Xili  
 Chaoyang District  
 CN - Beijing 100028  
 T +86 10 5979 8583  
 F +86 10 5822 0483  
 beijing.contact@tornos.com

**TORNOS SA THAILAND**
**REPRESENTATIVE OFFICE**

7th Floor, 19, Bangna -Trad Soi 34,  
 Bangna -Trad KM. 3 Road.  
 Bangna, Bangkok, 10260  
 Thailand  
 T +66 2746 8840-1  
 F +66 2746 8842  
 thailand.contact@tornos.com

**TORNOS TECHNOLOGIES ASIA LTD**
**MALAYSIA**
**REPRESENTATIVE OFFICE**

No. 1-1-11, Ground Floor & 1-2-11,  
 First Floor, One Terrace Plus,  
 Tingkat Mahsuri 4, 11900 Bayan Lepas,  
 PENANG, MALAYSIA  
 T +60 4 642 6562 / 4 642 6563  
 F +60 4 642 6561  
 malaysia.contact@tornos.com

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