

# TORNOS



*Taking precision  
to a new dimension*

## SwissNano 7

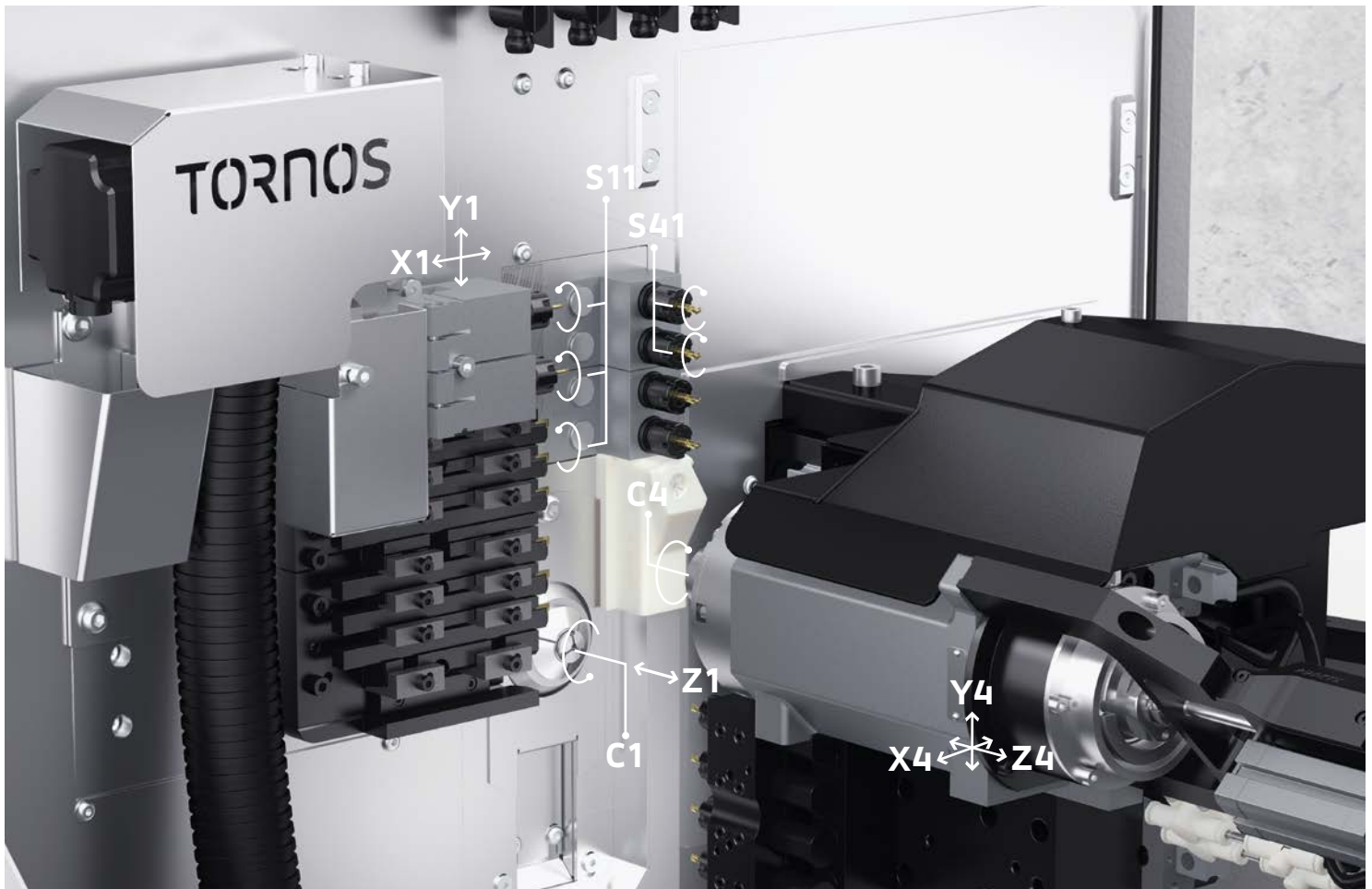
# SwissNano 7

The ergonomics and exclusive design of the SwissNano are now available in a new dimension. With a 7 mm bar capacity, the SwissNano 7 retains the 4 mm version's advantages, such as the kinematics and the excellent thermal stability that ensured the success of the 4 mm version.

## Increased machining capacity

While the machine is inspired by the 4 mm version, it was designed to chart its own course. An example of this is its machining capacity, which has been substantially increased to meet the new challenges our customers are sure to

offer it. The original machining capacity of  $\varnothing 4 \times 28$  mm has been boosted to  $\varnothing 7 \times 50$  mm and the spindle power more than doubled to 2.5 kW, to enable the machine to process bars made from the hardest of materials. The machining area has been redesigned and the available tooling expanded and optimized to enable numerous operations providing high added value. The result is a machine that offers unrivaled performance: Its thermal stability, precision and excellent flexibility represent a significant milestone. The machine's small footprint means it occupies the same space as a cam-type machine, with no need to rearrange the workshop.



# Taking precision to a new dimension

## Exceptional kinematics

The machine's 6-axis kinematics offer numerical settings in all dimensions. At the heart of the concept is the back spindle mounted on 3 linear axes, which makes the machine extremely user friendly. Supports holding 2, 3 or 4 tools can be installed under the back spindle, enabling the machine to perform operations in parallel on the two platens.

The main platen includes three positions for the rotating tools; it can hold transverse drills, a polygon tool or a gear hobbing tool. This opens up the possibility of machining operations not previously possible on this range. A horn can be mounted on the platen to house two front tool holders, enabling both main and secondary operations.

The machine's secondary operation device can be fitted with 4 tools, 2 of which can be motorized.

## Benefits for you

- Industry 4.0 ready
- High precision
- Small footprint
- Quick and easy to set up
- Reliable and productive
- Excellent thermal behaviour
- Lower energy consumption
- 3-axis back spindle
- Machining with or without guide bush

## Kinematics

- 6 linear axes + 2 C axes
- 2 independent tool systems
- Polygon operations
- Thread whirling
- Gear hobbing

## TECHNICAL SPECIFICATIONS

## SwissNano 7

Max. bar capacity	7 mm
Standard workpiece length	50 mm
Spindle rotation speed	15,000 rpm
Spindle drive power	2.5 kW
Counter spindle rotation speed	16,000 rpm
Back spindle power	1.2 kW

## Tooling

Positions for turning tools in operation	7 (8x8) +3
Positions for frontal tools in operation	4 (Ø16)
Positions for frontal tools in secondary operation	4 (Ø16)
Positions for rotating tools in operation (options)	3
Positions for rotating tools in secondary operation (options)	3
Total number of tool positions	18
Total number of tool positions for rotating tools	5

## Dimensions

Size (width x length x height)	750 x 1850 x 1655 mm
Cutting oil tray capacity	60 L
Chip container capacity	20 L

We keep you turning

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