

TORNOS



The evolution of an icon
SwissNano 4

Take your part production the next level with the new SwissNano 4

Geared for micro production

A well-established icon, the SwissNano 4 is the industry benchmark for the production of small parts requiring extreme precision.

Double your productivity per square meter

- The SwissNano has the smallest footprint on the market, consuming the same space as a cam machine.

Benefit from lightning-fast setup

- The operator benefits from 180-degree access to the machine, so settings can be adjusted or changed in a flash.
- Make fine tooling adjustments in a snap with the operator facing the guide bush.

Save costs thanks to the smartest machine on the market

- Immediately benefit from improved surface finishes and longer tool life with the SwissNano's vibration-reducing design.
- Get positioned to potentially double your output with the same power consumption costs. This machine has an extremely low 6 kVA power consumption that is significantly less than other machines on the market.
- Waste less material and produce more parts per bar. Some machines leave 300 mm bar remnants, but the SwissNano reduces remnants to a minimum.

Master the tightest process capability parameters

- Easily achieve tolerances as tight as ± 0.001 mm, even with strict process capability parameters.
- Experience ultimate stability: With just a 10-minute warm-up, the SwissNano delivers consistently perfect parts, thanks to its smart thermal management, stability and its rigid base.

Benefit from the most versatile kinematics on the market

- Available in numerous configurations and capable of machining with or without a guide bush, the SwissNano 4 transcends turning to also perform milling, gear hobbing, and polygon operations

NEW

Benefit from a high-pressure-ready machine, and defeat the most difficult challenges with the smallest machine on the market.

Up to 40% more productivity



- 6 linear axes
- 2 C axes
- 4 mm maximum bar diameter
- Maximum number of tools: 15
- Maximum number of rotating tools: 5

NEW

Increase your parts portfolio with 3 tools and up to 2 rotating tools in back operation!

NEW

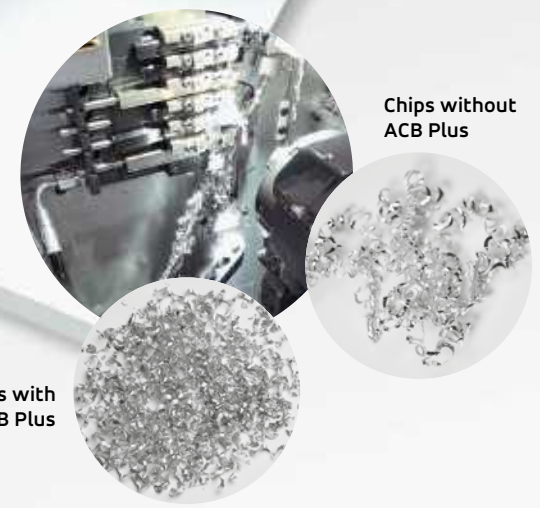
Improve and secure autonomy with Tornos' Active Chip Breaker Plus (ACB Plus) software.

- Improve the security and autonomy of your processes.

NEW

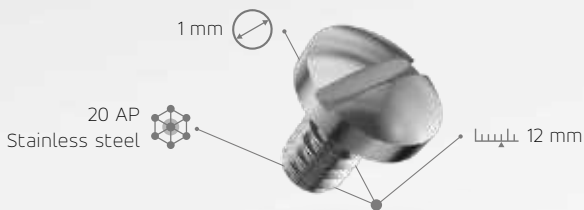
Achieve higher productivity with the brand new SwissNano 4

- Profit from up to 40% more productivity thanks to our Turbo mode*.



Chips with ACB Plus

Chips without ACB Plus



NEW	SwissNano 4	26 sec (2.31 parts per minute)
	SwissNano 4	20 sec (3 parts per minute)
	+25% productivity gain	

* Valid on certain machining operations such as synchronization and approach of spindle and counter spindle and synchronization of the cut-off and feed

TECHNICAL SPECIFICATIONS

SwissNano 4

Main spindle (Z1/S1/C1)

Max. bar capacity	mm	4
Workpiece length	mm	28
Spindle rotation speed	rpm	16,000
Spindle power (S1/S6)	kW	1.3/1.5

Main gang (X1/Y1/S11)

Number of tool positions on guide bush (option)		7 (8)
Turning tool section (option)		8x8 (7x7)
Positions for radial rotating tools (option)		2 (3)
Max rotating tool speed	rpm	NEW 10,000
Rotating tool power	kW	0,5
Steel drilling/rotating tool capacity		Ø 2.5, f=0.15 mm/rev
Rotating tool/steel tapping capacity		M3x5

End attachment and counter spindle (X4/Y4/Z4/S4)

Number of tool positions		3 x Ø 16
Max counter spindle capacity	mm	4
Insertion length of workpiece into counter spindle	mm	26
Counter spindle rotation speed	rpm	16,000
Counter spindle power (S1/S6)	kW	1.3/1.5
Steel drilling/rotating tool capacity		Ø 2.5, f=0.15 mm/rev
Rotating tool/steel tapping capacity		M3x5

Counter-operation

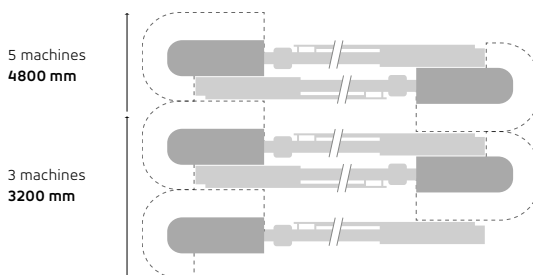
Number of standard tool positions		2 x Ø 16
Positions for rotating tools		2
Max rotating tool speed	rpm	NEW 10,000

Basic machine equipment

CNC type		FANUC Oi TF Plus
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General specifications

Dimensions (length x width x height)	mm	1,800 x 650 x 1,575
Weight	kg	750



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