CNC Lathe Machines

Numturn TC 500/1000 CNC



SKU : 180295

The Numturn TC series is a CNC box-way lathe designed for machining medium and long workpieces in single-part and small-batch production. All models in the series share the same technical base: a robust box-way construction, the standard electric 8-station VDI30 tool turret, the hydraulic power chuck with hydraulic tailstock quill, and the Siemens 828D control.

- Siemens SINUMERIK 828D control
- 8-station tool turret with VDI 30 mount
- Up to 2,000 mm distance between centers for long workpieces
- Hydraulic 10" power chuck and hydraulic tailstock as standard

TECHNICAL SPECS

WORKING AREA

Center height	250 mm
Turning diameter over bed	500 mm
Turning-Ø over support	290 mm
Turning length (max.)	830 mm
Center width	990 mm
Bed width	390 mm
Chuck diameter	250 mm

TRAVELS

Travel X-axis	260 mm
Travel Z-axis	830 mm

HEADSTOCK

Spindle mount	A2-8
Spindle bore	82 mm
Spindle capacity with draw tube	74 mm
Spindle speed	35 1/min - 2.500 1/min

RAPID FEED

Rapid feed X-axis	4.000 mm/min
Rapid feed Z-axis	8.000 mm/min

TOOLING

Number of tool stations	8 positions
Tool shank dimensions	20 mm x 20 mm
Boring bar mount Ø	25 mm

TAILSTOCK

Tailstock taper	5 MT
Tailstock quill diameter	75 mm
Tailstock quill stroke	150 mm

DRIVE CAPACITY

Main drive, continuous load	11 kW

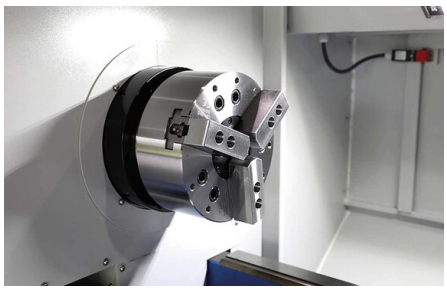
MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	3,4 m x 1,74 m x 1,71 m
Weight	2.995 kg

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Published on: 9.11.2026.











PRODUCT DETAILS

Machine Design

- Classic prismatic guideways on the robust flat bed support the carriage over a large surface area and dampen vibration
- The wide dovetail guideway of the cross slide (X-axis) absorbs both compressive and tensile forces positively, enabling precise machining even of demanding contours
- A gib strip also allows the guideway to be precisely readjusted, ensuring positioning accuracy over the machine's entire service life
- The headstock design is based on heavy-duty CNC lathes: the heavily ribbed construction dissipates the forces generated in a targeted way, ensuring low-vibration, process-reliable machining
- The significantly enlarged surface area also improves heat dissipation and ensures stable thermal conditions during continuous operation
- The machine runs gearless, and machining is uninterrupted across the entire speed range
- A central hydraulic system supplies both the power chuck and the tailstock quill (150 mm stroke)
- The enclosure is easily accessible via sliding doors at the front, and additional maintenance flaps make servicing and cleaning easier

Main spindle

- The powerful 11 kW main drive covers a speed range of 35–2,500 rpm, handling both fine contour work and heavy-duty machining
- The infinitely variable speed control continuously adjusts the spindle speed during facing and contour turning, so that the cutting speed can be kept constant across the entire machining diameter
- The large 74 mm spindle bore allows bar stock to be machined through the spindle
- The hydraulic power chuck offers a wide clamping range of 30–254 mm, an 8.8 mm jaw stroke in diameter, and a maximum clamping force of up to 108 kN

Tool Changer

- The standard 8-station VDI30 tool turret is electrically driven and accommodates 20 x 20 mm tool shanks or Ø 25 mm round shanks
- Short tool change times reduce non-productive time and increase productivity in single-part and small-batch production

Tailstock

- The sturdy tailstock can be positioned manually and features a hydraulically actuated quill
- With an MT5 taper, 75 mm quill diameter and 150 mm stroke, it makes loading and unloading workpieces easier

Equipment

- A steady rest and a travelling (follower) rest are included as standard equipment – additional support for long, slender shafts
- The automatic central lubrication system and the coolant system with heat exchanger ensure low-maintenance continuous operation
- The fully enclosed machine housing complies with the KNUTH CE safety package
- Electrical equipment from Schneider Electric, an LED work light and a 3-color signal light are included in the scope of delivery
- Compressed air and coolant spray guns make it easier to clean the workpiece, workholding devices and machine, e.g. during tool or workpiece changes

Control

- The Siemens 828D Basic control with teach-in control panel enables intuitive shop-floor programming without in-depth CNC knowledge
- Two electronic handwheels on the control panel allow manual traversing of the X- and Z-axes – for fast setup, tool touch-off (zero-point setting) and manual rework, just like on a conventional lathe
- The familiar operating logic of the handwheels shortens the training time for skilled workers experienced with conventional machines, and also supports teach-in program creation by approaching and capturing points
- Optionally, the dialog-guided Siemens ShopTurn programming package is available, allowing components to be programmed even without G-code

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STANDARD EQUIPMENT

Siemens 828 D control
2 electronic handwheels
8-position electric VDI tool turret
Hydr. 3-B lathe chuck 250 mm with bore
Hydraulic tailstock
Air gun
Coolant gun
Coolant device
Heat exchanger for electrical control cabinet
Automatic central lubrication
Operating tool
Operating manual

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Information to the point

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