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 78.7 in distance between centers for long workpieces
- Hydraulic 10" power chuck and hydraulic tailstock as standard

TECHNICAL SPECS

WORKING AREA

Center height	10 in
Turning diameter over bed	20 in
Turning-Ø over support	11 in
Turning length (max.)	33 in
Center width	38,98 in
Bed width	15 in
Chuck diameter	10 in

TRAVELS

Travel X-axis	10,2 in
Travel Z-axis	33 in

HEADSTOCK

Spindle mount	A2-8
Spindle bore	3,2 in
Spindle capacity with draw tube	3 in
Spindle speed	35 rpm - 2.500 rpm

RAPID FEED

Rapid feed X-axis	157,48 in/min
Rapid feed Z-axis	314,96 in/min

TOOL HEAD

Number of tool stations	8 positions
Tool shank dimensions	0,8 in x 0,8 in
Boring bar mount Ø	1 in

TAILSTOCK

Tailstock taper	5 MT
Tailstock quill diameter	3 in
Tailstock quill stroke	6 in

DRIVE CAPACITY

Main drive, continuous load	14,75 Hp

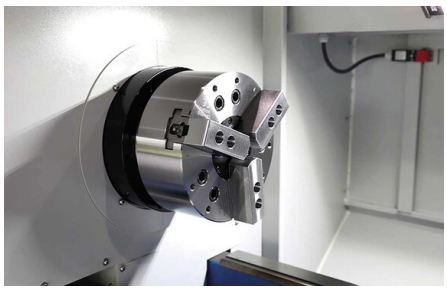
MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	134 in x 69 in x 68 in
Weight	6.589 lbs

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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 (5.91 in 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 14.8 HP 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 2.91 in spindle bore allows bar stock to be machined through the spindle
- The hydraulic power chuck offers a wide clamping range of 1.18–10 in, a 0.35 in jaw stroke in diameter, and a maximum clamping force of up to 24,280 lbf

Tool Changer

- The standard 8-station VDI30 tool turret is electrically driven and accommodates 0.79 x 0.79 in tool shanks or Ø 0.98 in 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, 2.95 in quill diameter and 5.91 in 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 hand-wheels
8-position electric VDI tool turret
Hydraulic 3-jaw lathe chuck, Ø 10 inch with bore
Hydraulic tailstock
Air gun
Coolant system flush gun
Coolant System
Heat exchanger for electric control cabinet
Automatic central lubrication
operating tools
Operating manual

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