TNA400

Universal lathe for precise and powerful cutting
TRAUB TNA400: Universal turning at the highest level

The universal lathe TRAUB TNA400 impresses with its innovative machine layout and raises universal turning to a new dimension.

The stiff and vibration-damping machine bed in mineral cast monoblock design ensures best results when machining complex workpieces from batch size 1. With a high spindle torque up to high spindle speeds, even difficult-to-cut materials can be machined powerfully and reliably. Special feature of the TRAUB TNA400 is the completely newly designed and clearly structured work area for a variety of applications.

With the optionally available counter spindle, rear end machining can be carried out with high precision.

The ergonomic design ensures quick setup and easy control of the machine.

The proven iXpanel operating concept and the 19” touch monitor provide the operator at any time with all relevant data for economical production and access to networked production.

The machine concept
- Clearly structured and ergonomically mature work area concept
- Rigid mineral cast bed in 45° monoblock design for high accuracy
- Work spindle A8 with belt drive for high torques
- Spindle clearance dia. 82 mm, chuck up to dia. 315 mm
- Generously dimensioned bed guides
- Radial turret for 12 tools with VDI 30 mounting and W-serration for high process reliability or disk-type turret for 12 tools with VDI 40 mounting
- Orthogonal, linear Y-axis for high accuracy
- Large axis travels X 255 mm (295 mm with disk-type turret) / Y ±60 mm / Z 750 mm

Options
- Counter spindle with A6 interface
- NC tailstock with electrically controlled axis
- Steady rest, electronically positionable
- Bar package with short bar loader
- INDEX EcoFluid
- Workpiece handling system
Clearly structured machine design and versatile applications

The TRAUB TNA400 stands for consistent further development of proven production solutions from TRAUB. Individually equipped, this new flexible universal lathe takes its place both in tooling and prototyping, but also in medium and large series production.

Decades of know-how is reflected in numerous design details, such as in a pocket in the panel above the main spindle which ensures collision-free use of long boring bars.

TRAUB TNA400 component system

The components

Main spindle
- Spindle clearance dia. 82 mm, chuck up to dia. 315 mm
- Max. speed 4,000 rpm
- Spindle power 24 kW (40% duty cycle)
- Torque 480 Nm (40% duty cycle)
- Holding brake for indexing the axis

Radial turret
- 12 live tool stations
- VDI 30 according to DIN 69880 with patented W-serration
- X 285 mm / Y ±60 mm / Z 750 mm
- Machining possible up to 70 mm below center of rotation *
- 6,000 rpm, 3.5 kW, 19.5 Nm (25% duty cycle)

Disk-type turret
- 12 live stations, VDI 40 DIN 69880
- X 295 mm / Y ±60 mm / Z up to max. 750 mm
- Machining possible up to 60 mm below center of rotation *
- 6,000 rpm, 4.5 kW, 37 Nm (25% duty cycle)

NC tailstock
- Electronically freely positionable
- Generously dimensioned roller guides
- Electronically adjustable pressing force up to 10,000 N
- Cone center SK 30 or MK 5
- Rapid traverse rate 8.5 m/min

Counter spindle
- Spindle clearance dia. 65 mm, chuck up to dia. 175 mm
- Speed max. 4,000 rpm
- Spindle power 11 kW (40% duty cycle)
- Torque Nm 119 (40% duty cycle)
- Holding brake for indexing the axis

Steady rest (option)
- Electronically positionable
- NC-programmable
- Clamping range 12 – 152 mm

Removal device (option)
- Diameter Ø max. 82 mm
- Length max. 200 mm
- Mass max. 8 kg

* (on main spindle)

C45
- Shaft dia. 65 x 400 mm

25CrMo4
- Sleeve dia. 250 x 230 mm

20NiCrMo2-2
- Ball screw nut dia. 78 mm
The ergonomic operating concept

The generously dimensioned work area ensures best accessibility for setup of the TRAUB TNA400. Main spindle and tool turret can be accessed easily allowing fast setup and change-over. The sophisticated work area concept with steep-sloping and smooth covers provides for an ideal chip flow and prevents chip nests.

Highlights
• Fast setup
• Excellent access to the work area
• Optimized chip flow

The available tool carriers

Two different tool carriers are available for the TRAUB TNA400. Up to 12 stationary or live tools can be installed on both.

Radial turret - with patented W-serration
The patented INDEX W-serration ensures high repeatability on the tool holders and on the turret when changing tools.

• Short tooling/setting-up times
• High change accuracy by long fixing grooves
• Extended life of cutting inserts

Disk-type turret – the proven TRAUB classic
The disk-type turret is excellently suited for powerful machining due to its design aligned to the main spindle.

• Ideal for use of large solid drills, as the forces can act directly on the workpiece
• High stability due to direct force flow
• VDI 40 mounting

TRAUB TNA400

Work area
TRAUB TNA400 with main spindle, tailstock, and disk-type turret

Work area
TRAUB TNA 400 with main spindle, counter spindle, and radial turret
Focus on production and control – Industry 4.0 included.
The iXpanel operating concept provides access to networked production. With iXpanel your staff always has all relevant information for efficient production right at the machine. iXpanel is already included in the standard and can be individually extended. You can use iXpanel as you want it for your business organization – that’s Industry 4.0 tailored to your needs.

Future-proof.
TRAUB TX8i-s V8 optimally integrates the iXpanel functionalities. Use iXpanel intuitively via an 19” touchscreen monitor.
### Technical data - TRAUB TNA400

**Work area**
- Disk-type turret with tailstock

**Radial turret with counter spindle**

### Installation plan

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<table>
<thead>
<tr>
<th>Work area</th>
<th>TRAUB TNA400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk-type turret with tailstock</td>
<td>Turning length mm: 750</td>
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<tr>
<td>Radial turret</td>
<td>Main spindle</td>
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<tr>
<td>Spindle clearance mm: 82</td>
<td>Spindle head DIN 55026 Size A8</td>
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<tr>
<td>Max. chuck mm: 315</td>
<td>Max. speed rpm: 4,000</td>
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<tr>
<td>Max. speed rpm: 4,000</td>
<td>Drive power (100% / 40% DC) kW: 18.5 / 22</td>
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<tr>
<td>Max. chuck mm: 175</td>
<td>Torque (100% / 40% DC) Nm: 340 / 480</td>
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<tr>
<td>Counter spindle</td>
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</tr>
<tr>
<td>Spindle clearance mm: 65</td>
<td>Spindle head DIN 55026 Size A6</td>
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<td>Max. chuck mm: 75</td>
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<tr>
<td>Torque (100% / 40% DC) Nm: 70 / 118</td>
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<tr>
<td>Tool turret</td>
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<tr>
<td>Tool mountings DIN 69880</td>
<td>Number 12 VDI 30 12 VDI 40</td>
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<tr>
<td>Live tools</td>
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<tr>
<td>Number 12 12</td>
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<tr>
<td>Max. speed min: 8,000</td>
<td>Drive power (100% / 25% DC) kW: 3.5 / 7 4.5 / 9</td>
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<tr>
<td>Max. speed rpm: 6,000</td>
<td>Torque (100% / 25% DC) Nm: 11.5 / 19.5 18.6 / 37</td>
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<tr>
<td>Drive power (100% / 25% DC) kW: 11.5 / 19.5 18.6 / 37</td>
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<tr>
<td>Torque (100% / 25% DC) Nm: 11.5 / 19.5 18.6 / 37</td>
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<tr>
<td>Slide travel X mm: 250</td>
<td>Rapid traverse rate X/Y/Z m/min: 40 / 20 / 40 40 / 20 / 40</td>
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<tr>
<td>Slide travel Y mm: ±60</td>
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<tr>
<td>Slide travel Z mm: 750</td>
<td>Tailstock</td>
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<tr>
<td>Feed force X / Y / Z (33% DC) N: 11,900 / 11,700 / 11,900 11,900 / 11,700 / 11,900</td>
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<tr>
<td>Rapid traverse rate X/Y/Z m/min: 40 / 20 / 40 40 / 20 / 40</td>
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<tr>
<td>Tailstock</td>
<td>Montaging SK 30 oder MK 5</td>
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<td>Max. pressing force N: 10,000</td>
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<tr>
<td>Rapid traverse rate m/min: 8.5</td>
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<tr>
<td>Cooling lubricant unit (basic unit)</td>
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<tr>
<td>Pump pressure bar: 8 / 20</td>
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<tr>
<td>Tank capacity l: 300</td>
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<td>Pump capacity 8 / 20 bar l/min: 80 / 30</td>
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<td>Filter fineness µm: 200</td>
<td>Machine dimensions</td>
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<td>Length x width x height mm siehe Aufstellplan</td>
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<td>Weight kg: 8,000</td>
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<td>Connected power kW: 52</td>
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