



Experience our machines in action!



For more machines of this series, including machines with driven tools, please visit our website



Heavy machine bed with hardened and ground guides

Premium heavy-duty lathe for customized productivity and long machining distances

- Heavy ribbing of the 45° inclined bed with wide box ways ensures excellent vibration damping, especially during continuous cutting operations.
- This design is very spacious, featuring a large work space for tools and improved chip removal
- A wide support saddle with maximum guide length will result in significantly more stability and much less vibration
- The preloaded ball screws connect to powerful drives via a zero-loss transmission clutch, and extensive bilateral bearings ensure high axial and radial rigidity and minimize deviations caused by heating and preloading of spindle
- Excellent rigidity and minimum influence of fluctuating operating temperatures are possible due to an innovative and massive spindle head design
- The main spindle is designed for demanding loads and lasting accuracy, it includes precision dual cylinder roller bearings on both sides, plus additional angular ball bearings on both sides of the front bearings
- The rigid tailstock for shaft machining provides additional flexibility in production operations
- The design with 2 additional box ways ensures collision-free tailstock movements. Extra long guideways, superior rigidity and precision of guides result in excellent vibration damping even during heavy machining operations
- Automatic tailstock is available as an option.
- Servo-turret for quick and precise tool changes
- L models offer an additional center width for even more capacity
- Optionally, a hydraulically self-centering rest from SMW can be used, and the included tailstock allows machining of long workpieces

Fanuc 0i TF control

- Easy programming and operation, short learning curve

Standard Equipment

Fanuc 0i-TF control, 10.4" LCD color monitor, USB interface, RS232 interface, 12-station tool holder, programmable tailstock, hydraulic 3-jaw chuck with soft jaws, set of soft jaws, foot switch for 3-jaw chuck, chuck close/open confirm switch, hydraulic unit, coolant system, air and coolant spray wand, central lubrication, LED work lamp, 3-color signal lamp (LED), door lock, machine feet, operating tools

Options

Part No.

| | |
|--|--------|
| • IR Receiver 91.50 for Stahlwerk machines | 251598 |
| • Air Blower | 251621 |
| • Automatic door | 251637 |
| • Set of hard jaws for 18" chuck | 251667 |
| • Air conditioner for electric cabinet | 251693 |
| • Manual rest (Ø 12-16 inch) | 251711 |

For additional options for this machine, visit our website.

Specifications TAURUS

250

300L

450L

Working Area

| | | | | |
|---------------------------------|----|----|----|----|
| Turning-Ø over bed (max.) | in | 24 | 24 | 31 |
| Swing-Ø over cross slide (max.) | in | 19 | 19 | 25 |
| Turning diameter (max.) | in | 16 | 16 | 27 |
| Turning length (max.) | in | 43 | 82 | 89 |

Travels

| | | | | |
|--------------------|-----|-----|-----|------|
| Travel X-axis | in | 9.1 | 9.1 | 13.8 |
| Travel Z-axis | in | 44 | 84 | 92 |
| Angle of slant bed | deg | 45 | 45 | 45 |

Headstock

| | | | | |
|-----------------------------|--------|-------|-------|-------|
| Bar capacity (incl. chuck) | in | 3 | 4 | 5 |
| Spindle speed | rpm | 3,500 | 3,000 | 2,000 |
| Spindle mount | | A2-8 | A2-8 | A2-11 |
| Spindle bore | in | 3 | 4 | 5 |
| Spindle torque max. (steps) | ft.lb. | 347 | 347 | 1,938 |
| Spindle drive method | | Belt | Belt | Belt |
| Lathe chuck diameter | in | 10 | 12 | 18 |

Rapid Feed

| | | | | |
|-------------------|--------|--------|--------|--------|
| Rapid feed X-axis | in/min | 787.4 | 787.4 | 787.4 |
| Rapid feed Z-axis | in/min | 944.88 | 708.66 | 708.66 |

Feed

| | | | | |
|--------------------------------|----|-------------|-------------|-------------|
| Feed force X-axis (cont./max.) | kN | 15.7 / 35.3 | 15.7 / 35.3 | 18.4 / 52.1 |
| Feed force Z-axis (cont./max.) | kN | 12.5 / 28.2 | 10.4 / 23.5 | 23.9 / 81.9 |

Tool Head

| | | | | |
|---------------------------|-----------|-------|-------|-------|
| Tool change type | | Servo | Servo | Servo |
| Number of tool stations | positions | 12 | 12 | 12 |
| Shank size | in | 1x1 | 1x1 | 1x1 |
| Boring bar mount diameter | in | 2 | 2 | 2.4 |
| Turret indexing time | sec | 0.2 | 0.2 | 0.25 |

Accuracies

| | | | | |
|----------------------|----|----------|----------|----------|
| Repeatability X-axis | in | ± 0.0002 | ± 0.0002 | ± 0.0001 |
| Repeatability Z-axis | in | ± 0.0004 | ± 0.0004 | ± 0.0002 |

Tailstock

| | | | | |
|--------------------------|----|---|---|---|
| Tailstock quill diameter | in | 4 | 4 | 6 |
| Tailstock quill stroke | in | 4 | 4 | 6 |
| Tailstock taper | MT | 5 | 5 | 5 |

Drive Capacity

| | | | | |
|-----------------------------|-----|-------|-------|-------|
| Motor rating main drive | Hp | 24.8 | 24.8 | 49.6 |
| Main drive, continuous load | Hp | 20.11 | 20.11 | 40.23 |
| Motor rating X-axis | Hp | 4 | 4 | 9.4 |
| Motor rating Z-axis | Hp | 4.02 | 4.02 | 8.05 |
| Total power consumption | kVA | 30 | 30 | 57 |

Measures and Weights

| | | | | |
|--|-----|-----------|-----------|-----------|
| Overall dimensions (length x width x height) | in | 155x72x81 | 207x72x80 | 229x86x93 |
| Weight | lbs | 15,620 | 18,920 | 29,040 |
| Part No. | | 181175 | 181131 | 181139 |