

SKU : 300833

The Servoturn series of universal lathes combines the most modern feed technology with classic mechanical engineering. In contrast to standard conventional lathes, this series has ball screw drives and electronic hand wheels on all axes. High-torque servo motors implement every feed movement with the dynamics of modern CNC machines. Without gear change wheels and gears, feed and thread pitches can be selected electronically. Rapid traverses on all axes reduce non-productive time and electronic stops offer high repeat accuracy.

- Servo-feed system
- Preloaded ball screws on all axes
- Electronic hand-wheels
- Position indicator with V-constant feature
- Quick change tool holder



TECHNICAL SPECS

WORKING AREA

| | |
|---------------------------|---------|
| Center width | 1950 mm |
| Turning diameter over bed | 500 mm |
| Turning-Ø over support | 300 mm |
| Bed width | 400 mm |

TRAVELS

| | |
|----------------|---------|
| Travel X-axis | 250 mm |
| Travel Z-axis | 1880 mm |
| Travel Z1-axis | 100 mm |

HEADSTOCK

| | |
|----------------------|-----------------------|
| Spindle speed | 30 1/min - 1600 1/min |
| Spindle bore | 86 mm |
| Spindle mount | A2-8 |
| Lathe chuck diameter | 250 mm |

RAPID FEED

| | |
|-------------------|---------|
| X-axis rapid feed | 4 m/min |
| Z-axis rapid feed | 4 m/min |

FEED

| | |
|-------------|--------------------|
| Feed X-axis | 0.01 mm/R - 2 mm/R |
| Feed Z-axis | 0.01 mm/R - 2 mm/R |

THREADING

| | |
|----------------------|------------|
| Threading, metric | 0,35-14 mm |
| Threading, whitworth | 48-4 TPI |

TAILSTOCK

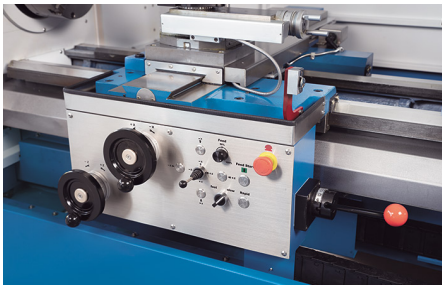
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|--------------------------|--------|
| Tailstock quill diameter | 75 mm |
| Tailstock taper | 5 MT |
| Tailstock quill stroke | 150 mm |

DRIVE CAPACITY

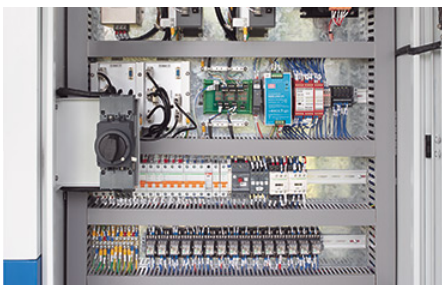
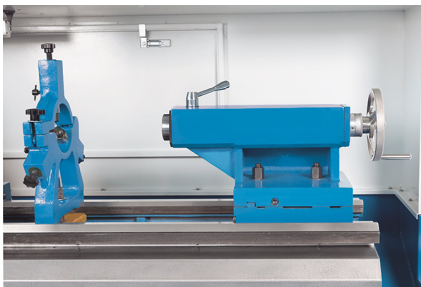
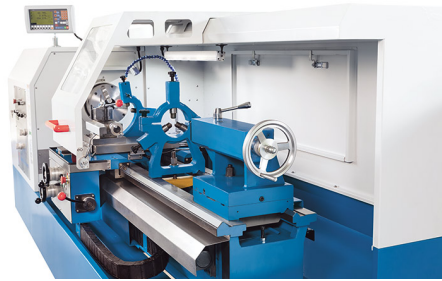
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|-------------------------|-------------|
| Motor rating main drive | 6 kW - 9 kW |
| Motor rating X-axis | 1.5 kW |
| Motor rating Z-axis | 2.3 kW |
| Supply voltage | 400 V |

MEASURES AND WEIGHTS

| | |
|--|--------------------------|
| Overall dimensions (length x width x height) | 4.25 m x 1.28 m x 1.65 m |
| Weight | 3450 kg |



Micro-control via electronic hand-wheels - but handling and positioning just as with a conventional machine



PRODUCT DETAILS

- The combination of a tried and tested machine base with the most advanced feed technology makes the change to a servo-conventional lathe even more attractive and cost-effective

Intuitive operation as we know it from conventional machines - only much better:

- Feed and thread leads can be selected via rotary switch - what a brilliant concept
- Stops can be set electronically with the push of a button
- Feeds are infinitely variable via override potentiometer - finally available on a conventional lathe
- Micro-control via electronic hand-wheels - but handling and positioning just as with a conventional machine
- Axes are powered by high-quality servo drives that translate your hand movements with the precision and dynamics of modern CNC machines
- Infinitely variable speed adjustment and constant cutting speed of headstock
- Constant cutting speed: During face turning, the spindle speed automatically adapts to the changing workpiece diameter – the constant cutting speed at the cutting edge of the turning tool ensures superior turning results with quality comparable to CNC lathes

Machine Frame

- Heavy ribbed machine bed with wide, hardened bed guides and V-blocks allow for heavy-duty machining
- Headstock and main spindle are designed for optimum rigidity, vibration damping and temperature balance
- This entire series also features large spindle bores
- A quick-action tool changer is included in the standard package and ensures maximum flexibility and productivity

Feed

- Ball screws on the X- and Z-axes ensure considerably fewer errors due to looseness (backlash), resulting in significantly higher precision

Equipment

- The low-maintenance machine is equipped with a central lubrication system
- The heavy-duty tailstock is easy to handle and features high clamping force
- Incl. 3-axis position indicator with integrated spindle speed display, fully assembled
- The Servoturn 500 standard equipment package includes a quick-change tool holder set type WB, and the Servoturn 660 models come with the larger type WC tool holder set

STANDARD EQUIPMENT

- 3-axis position indicator X.Pos 3.2
- 3-jaw chuck Ø 250 mm
- Work lamp
- Operating tools
- Operator instructions
- Steady rest
- Coolant system
- Quick change tool holder
- Follow rest
- Electronic hand-wheels
- Fixed splash guard (wall)
- Traveling cover for the toolpost