

# Conventional Horizontal Lathes

## Servoturn 500/2000

**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

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

#### DRIVE CAPACITY

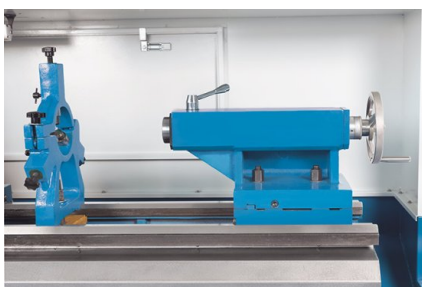
Motor rating main drive	6 kW - 9 kW
Motor rating X-axis	1.5 kW
Motor rating Z-axis	2.3 kW
Supply voltage	400 V

#### 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
- Electronic hand-wheels
- Quick change tool holder
- Steady rest
- Follow rest
- Coolant system
- Fixed splash guard (wall)
- Traveling cover for the toolpost
- Work lamp
- Operating tools
- Operator instructions



## KNUTH on YouTube

### Information to the point

On our YouTube channel you can find videos for nearly all machines from our program. We show the machines from current deliveries and you get an impression of the handling, the processing quality and the machining performance.

**Are you interested in a machine for which you cannot find a current video?  
Please feel free to contact us!**