

# Conventional Horizontal Lathes

## Basic 180 Super

**SKU : 300805**

The Basic 180 Super is the largest mechanics lathe in the KNUTH Machine Tools catalog and is also one of the heaviest machines in this popular market segment. The large bed width of 206 mm (8 in) and a 30 percent higher total weight have a positive effect on the overall machining quality and enable machining services that also meet industrial requirements. Equipped with position indicator, quick-change holder and other standard accessories, the BASIC 180 Super has been one of our best-selling conventional lathes for more than 20 years.

- Heavy-duty wide machine bed
- Rugged construction for minimal vibration
- Powerful motor for demanding operations
- Extensive standard equipment for a wide range of applications



### TECHNICAL SPECS

#### WORKING AREA

Center width	1000 mm
Turning diameter over bed	356 mm
Turning-Ø over support	220 mm
Bed width	206 mm

#### TRAVELS

Travel X-axis	178 mm
Travel Z1-axis	92 mm
Swing range of top slide	± 50°

#### HEADSTOCK

Spindle speed	45 1/min - 1800 1/min
Spindle bore	38 mm
Spindle mount	Camlock D1-4
Spindle taper	5 MT

#### FEED

Feed X-axis	0.015 mm/R - 0.22 mm/R
Feed Z-axis	0.043 mm/R - 0.653 mm/R

#### THREADING

Threading, metric	(37) 0,4-7 mm
Threading, whitworth	(28) 4-56 TPI

#### TAILSTOCK

Tailstock quill diameter	45 mm
Tailstock taper	3 MT
Tailstock quill stroke	120 mm
Tailstock traverse adjustment	± 10 mm

#### DRIVE CAPACITY

Motor rating main drive	2.4 kW
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#### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	1.95 m x 0.75 m x 1.55 m
Weight	880 kg



Select the optimum spindle speed for the Basic 180 Super via its 16-step main drive



## PRODUCT DETAILS

- Cast-iron bed, heavily ribbed
- All box ways are induction-hardened and precision-ground
- Headstock with D1-4' mount, bore diam. 38 mm, run in 2 adjustable tapered roller bearings
- All gears are made of Cr-Ni steel, hardened, precision-ground, with oil-bath lubrication
- Tailstock can be moved  $\pm 10$  mm for taper turning
- Powerful main drive (2.4 kW), including base frame
- Guides are adjustable via tapered gibs
- Test certificate in accordance with DIN
- Including 3-axis position indicator, fully assembled

## CONTROLS & SOFTWARE

### 3-axis position indicator X.Pos 3.2

- Integrating multiple functions, this new generation of 3 axis digital readouts significantly offer a much better control over the machining processes, greatly decreasing down-times and error rates
- It features a totally sealed enclosure made of high quality polyester film which protects it against hazardous environments in shop floors, such as dust or fumes and offers excellent chemical resistance to most commonly used industry solvents
- The optical scales provide 5 micron resolution (0.005 mm) with outside cover from aluminum for protection against oil, coolant and chips.

#### **Basic Functions**

- Resolution of 0,005 mm
- Spindle control ON/OFF
- Unit measurement conversion Inch / Metric
- Setting / Resetting current position
- Coordinate display switching ABS / INC
- Radius / Diameter display
- Z1/Z2 Axes summing
- Pocket calculator functions

#### **Extended Functions**

- Axis position is maintained when display is turned off
- Hole circle pattern calculation
- Radius / diameter toggle
- Reference function for tool gauging
- Taper turning function

## **STANDARD EQUIPMENT**

3-axis position indicator X.Pos 3.2  
 Quick change tool holder head WE  
 Quick change tool holder WED 20100  
 3-jaw chuck Ø 160 mm  
 4-jaw face plate chuck Ø 200 mm  
 Face plate Ø 320 mm  
 Steady and follow rests  
 Coolant system  
 Micrometer stop  
 Thread gauge  
 Reducing sleeve  
 Dead center  
 Protective shield for the toolpost  
 Chuck guard  
 Foot brake pedal  
 Fixed splash guard (wall)  
 Work light  
 Chip tray  
 Operator instructions  
 Toolbox with operating tools