

Conventional Lathes

Basic 180 V



SKU : 300807

Basic 180 V is one of the heaviest machines in this popular market segment. With a bed width of 206 mm (8 in) and a 30 percent higher total weight, its solid construction has a positive effect on the processing quality. This lathe also enables heavier machining operations that meet industrial requirements. Equipped with an inverter, it can easily reach 3,000 revolutions per minute. The constant cutting speed function also ensures surface qualities comparable to that of a CNC lathe when facing.

- Largest bed width in this machine class
- Constant cutting speed
- High spindle speed and motor power
- 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

| | |
|-------------------|------------------------|
| Speed range, high | 550 1/min - 3000 1/min |
| Speed range, low | 30 1/min - 550 1/min |
| Spindle mount | Camlock D1-4 |
| Spindle bore | 38 mm |
| Spindle taper | 5 MT |

FEED

| | |
|-------------|-------------------------|
| Feed X-axis | 0.014 mm/R - 0.206 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

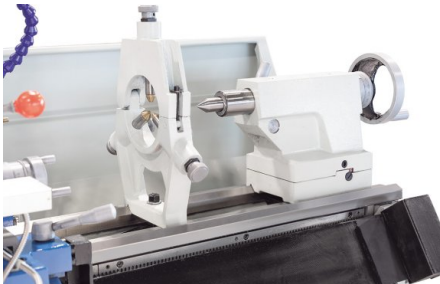
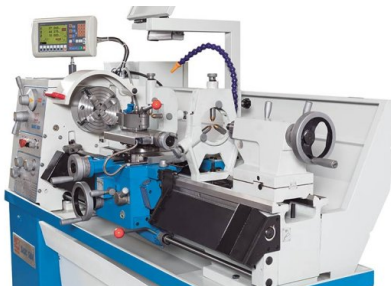
| | |
|-------------------------------|---------|
| Tailstock quill diameter | 45 mm |
| Tailstock taper | 3 MT |
| Tailstock quill stroke | 120 mm |
| Tailstock traverse adjustment | ± 10 mm |

DRIVE CAPACITY

| | |
|-------------------------|------|
| Motor rating main drive | 4 kW |
|-------------------------|------|

MEASURES AND WEIGHTS

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



Rigid rests significantly increase turning precision and efficiency



Change gears provide for a wide range of thread leads and feeds



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 ± 10 mm for taper turning
- Guides are adjustable via tapered gibs
- Test certificate in accordance with DIN
- Including 3-axis position indicator, fully assembled
- Position indicator with speed display
- Infinitely variable spindle speed on 2 gear levels
- Speed up to 3000 min⁻¹
- Constant cutting speed: speed adapts to the part radius - constant speed ensures uniform quality finish at any diameter.
- Main motor rating 4 kW

CONTROLS & SOFTWARE

3-axis position indicator, X.pos 3.2 VC

- 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
- 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

Constant cutting speed

- Allows you to have constant cutting speed during - the spindle speed automatically adjusts based on the turning diameter

STANDARD EQUIPMENT

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