

# Conventional Horizontal Lathes

## Sinus 400/1500 D

### SKU : 300015

Sinus D is the largest series in the universal lathes segment. The construction follows a classic design but is based on a heavy, one-piece cast machine bed. As with heavy-duty lathes, the frictional connection between the motor and the spindle takes place via a manual multi-disc clutch. With integrated functions such as the removable bed bridge, rapid traverse and a taper turning device, this series offers optional solutions for machining long workpieces or large flanges.

- One-piece heavy-duty cast bed for increased rigidity
- Sturdy headstock design with large spindle bearings
- Rapid feed on 2 axes for fast positioning
- Taper turning attachment for additional applications
- Well-designed safety functions



## TECHNICAL SPECS

### WORKING AREA

Workpiece length (max.)	1500 mm
Turning diameter over bed	800 mm
Turning-Ø over support	570 mm
Turning diameter without gap bridge	1035 mm
Gap bridge length	330 mm
Bed width	400 mm

### TRAVELS

Travel X-axis	420 mm
Travel Z1-axis	230 mm
Swing range of top slide	70°

### HEADSTOCK

Spindle speed	25 1/min - 1600 1/min
Spindle bore	105 mm
Spindle mount	D1-8
Spindle taper	5 MT

### RAPID FEED

Rapid feed X-axis	2000 mm/min
Rapid feed Z-axis	4000 mm/min

### FEED

Feed X-axis	0.022 mm/R - 0.74 mm/R
Feed Z-axis	0.044 mm/R - 1.48 mm/R

### THREADING

Threading, metric	0.45 mm - 120 mm
Threading, diametric	0.88 DP - 160 DP
Threading, module	0.25 mm - 60 mm
Threading, whitworth	(54) 7/16 - 80 TPI

### TAILSTOCK

Tailstock quill diameter	90 mm
Tailstock taper	5 MT
Tailstock quill stroke	235 mm
Tailstock traverse adjustment	± 11 mm

### DRIVE CAPACITY

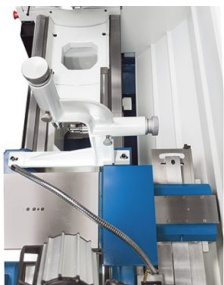
Motor rating main drive	7.5 kW
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### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	3.24 m x 1.14 m x 1.91 m
Weight	3220 kg



*Rests ensure maximum precision when machining long workpieces*



## PRODUCT DETAILS

- Removable bridge (250 mm) for machining of large parts with diameters up to 1035 mm
- High accuracy and low-noise operation even at high cutting power
- Heavy and large bed
- Hardened guideways (>HB 400)
- 105 mm spindle capacity for machining of large parts
- Manual central lubrication
- Clutch for soft startup with heavy parts
- Automatic lubrication of headstock and main drive
- Protected leadscrew
- Overload protection for feed shaft and leadscrew
- Support moves in linear and cross directions via rapid feed

## 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 / Reseting 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  
 3-jaw chuck Ø 315 mm  
 4-jaw face plate chuck Ø 400 mm  
 Face plate Ø 500 mm  
 Dog plate  
 Quick tool changer head WD  
 Quick change tool holder WD1D 40180  
 Fixed splash guard (wall)  
 Coolant system  
 Steady and follow rests  
 Taper turning unit  
 Chuck guard  
 LED Work light  
 Reducing sleeve  
 Dead center  
 Toolbox with operating tools  
 Operator instructions  
 Rapid feed on Z and X axes



## 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!**