

# Conventional Horizontal Lathes

## DL S 515/5000



### SKU : 301517

The DL S lathe series is slightly smaller than the DL E Heavy, but is also designed for large turning diameters and workpiece lengths. It is the solution for conventional machining of workpieces up to 5000 mm (197 in.) in length and over 720 mm (28 in.) in diameter. The particularly wide and heavily ribbed machine bed accommodates the heavy workpiece weights. The multi-disc clutch gives the operator control over the dynamics of the spindle start-up and the rapid traverse in the support is particularly effective with large bed lengths.

- Center widths up to 5000 mm
- Spindle bore of 100 mm
- Powerful motor
- Spindle speed can be adjusted in 4 steps
- Rapid feed in X and Z direction
- Complete with assembled 3-axis position indicator

## TECHNICAL SPECS

### WORKING AREA

Workpiece length (max.)	5000 mm
Turning diameter over bed	1000 mm
Turning-Ø over support	720 mm
Turning diameter over gap bridge	1350 mm
Workpiece weight (max.)	4000 kg
Gap bridge length	470 mm
Bed width	600 mm

### TRAVELS

Travel X-axis	520 mm
Travel Z-axis	4700 mm
Travel Z1-axis	250 mm
Swing range of top slide	90°

### HEADSTOCK

Spindle speed	5 1/min - 630 1/min
Spindle bore	100 mm
Spindle mount	A2-11

### RAPID FEED

Rapid feed X-axis	1800 mm/min
Rapid feed Z-axis	3640 mm/min

### FEED

Feed speed X-axis	0.04 mm/min - 4.8 mm/min
Feed speed Z-axis	0.08 mm/min - 9.6 mm/min
Feed speed Z1-axis	0.02 mm/min - 2.4 mm/min

### TOOLING

Tool shank dimensions	32 mm x 32 mm
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### THREADING

Threading, metric	(53) 1-120 mm
Threading - inch	(49) 30 - 1/4
Threading, diametric	(56) 60-0,5 DP
Threading, module	(54) 0,5 - 60 mm

### TAILSTOCK

Tailstock quill diameter	120 mm
Tailstock taper	6 MT
Tailstock quill stroke	250 mm

### DRIVE CAPACITY

Motor rating main drive	22 kW
Motor rating coolant pump	0.15 kW
Motor rating feed	1.1 kW
Total power consumption	23 kVA

### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	7.15 m x 1.5 m x 1.6 m
Weight	9500 kg



## PRODUCT DETAILS

- Extra heavy, wide machine bed with heavy ribbing and one-piece mono-block construction
- Induction-hardened and ground guide slots ensure long-term accuracy and minimum wear
- Massive headstock with high-precision main spindle on a tapered roller bearing with 100 mm spindle bore for excellent stability under heavy loads
- Very quiet operation at maximum spindle speed
- Joystick control for X and Z feeds is mounted directly to support
- Manually shifted 4-step gearbox with high-quality frequency control combined with a powerful main spindle motor allow exact tuning of rpm and high torque to provide maximum power even under heaviest loads
- Rapid feed for X and Z axis allow quick support positioning and less down-time
- Adjustable overload clutch in apron protects the feed mechanics from damages and failures
- Central, practical controls for feeds and thread leads
- The auxiliary gearbox features a wide spectrum of diametric, inch, module, and metric threads
- Support and top slide are designed for high cutting forces
- More accuracy
- Lower error rate
- Increased productivity
- Resulting in valuable time savings
- For increased productivity
- Easy to read display
- Operator-specific features
- Convenient keyboard layout
- Resolution: 0.01/ 0.005 mm
- Default coordinates
- Axis position is maintained when display is turned off
- Hole circle pattern calculation
- Calculator function
- Storage for 10 tools
- Radius / diameter toggle
- Mm/inch conversion
- Easy expansion and maintenance-free operation
- Display for top (Z0) and box way slide (Z1) both separate and in differential / cumulative mode for lathes

## STANDARD EQUIPMENT

3-axis position indicator X.Pos 3.2  
 4-jaw face plate chuck Ø 1000 mm  
 4-station tool holder  
 Steady rest 40-350 mm  
 Follow rest 30-120 mm  
 Dead centers  
 Reducing sleeve  
 Chuck guard  
 Protective shield for the toolpost  
 Coolant system  
 Foundation bolts  
 Work lamp  
 Operating tools  
 Operator instructions

## OPTIONAL EQUIPMENT

- Steady rest (300 - 720 mm), SKU : 251160
- Motorized tailstock movement, SKU : 251161
- 3-jaw chuck (500 mm), SKU : 251162



## 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!**