



### SKU : 181625

The LabTurn is suitable for CNC training as well as for the production of small workpieces. The compact and mobile CNC lathe represents the full range of functions of a large production machine. The 8-station tool turret has four tools each for internal and external machining and long workpieces can be machined with a tailstock. The main spindle rotates continuously up to 3000 revolutions and the 3-jaw chuck has a diameter of 100 mm (3.9 in). With its simple, intuitive operator guidance, the Siemens 808 controller is the ideal introduction to CNC applications.

- Siemens 808 Advance is the ideal introductory machine
- Tool turret for inside and outside machining
- Linear guides and preloaded ball screws on all axes
- Enclosed machine housing
- Mobile machine base with ample storage space

## TECHNICAL SPECS

### WORKING AREA

Workpiece length (max.)	280 mm
Turning diameter over bed	200 mm
Turning-Ø over support	90 mm

### TRAVELS

Travel X-axis	86 mm
Travel Z-axis	155 mm

### HEADSTOCK

Speed range	100 1/min - 3000 1/min
Spindle mount	MK 3
Spindle bore	20 mm
Lathe chuck diameter	100 mm

### RAPID FEED

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

### FEED

Feed speed X-axis	1000 mm/min
Feed speed Z-axis	1000 mm/min
Max. torque feed motor X-axis	2.2 Nm
Max. torque feed motor Z-axis	2.2 Nm

### TOOLING

Number of tool stations	8 positions
Tool shank dimensions	8 mm x 8 mm
Boring bar mount Ø	12 mm

### ACCURACIES

Positioning accuracy X-axis	0.022 mm
Positioning accuracy Z-axis	0.022 mm
Repeatability X-axis	0.01 mm
Repeatability Z-axis	0.01 mm

### TAILSTOCK

Tailstock quill diameter	20 mm
Tailstock quill stroke	30 mm
Tailstock taper	MK 2

### DRIVE CAPACITY

Motor rating main drive	1 kW
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### MEASURES AND WEIGHTS

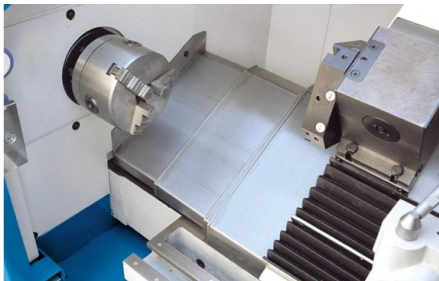
Overall dimensions (length x width x height)	1.4 m x 0.9 m x 1.85 m
Weight	360 kg



*Slant bed machine frame*



*4-fold tool turret and tailstock*



*Manual 3-B chuck 100mm*



## PRODUCT DETAILS

### Highlights

- The LabTurn is an ideal lathe for CNC training and small batch production of high precision workpieces
- Rigid cast-iron inclined bed design ensures good stability and efficient chip removal
- Precision linear guides ensure high stability and accuracy
- Central lubrication for reduced maintenance

### Machine Design

- Enclosed workspace protects and a large sliding door provides easy access

### Spindle

- Hydraulic 100 mm 3-jaw chuck and rigid tailstock are included in standard equipment
- Max. spindle speed 3.000 rpm
- Spindle bore 20 mm

### Tool Changer

- 8-station tool turret with 4 tools per station for inside and outside turning

## CONTROLS & SOFTWARE

### Siemens 808D Advance control

- SINUMERIK 808D ADVANCE -- the perfect solution for modern standard machines
- CNC and drive communicate via a high-speed bus to ensure efficient positioning control plus high precision and optimum cutting performance
- This is topped by a guaranteed superior price/performance ratio
- In combination with a new generation of spindle and axis drives, the SINUMERIK 808D ADVANCE with 8.4" LCD provides an innovative ready-to-use digital CNC solution for modern standard machines

#### **Advantages - Digital solution provides higher precision:**

- Increased overload capacity supports a faster acceleration and deceleration of machine tools
- Constant cutting speeds result in an increased surface quality of the workpiece

#### **Increased ruggedness:**

- During heavy machining operations, an automatic spindle torque adjustment will help protect machining tools and spindle systems.
- The SINAMICS features a wide voltage range to prevent machine shut-downs during poor voltage supply conditions. This will significantly reduce machine down-times.

#### **Increased operator comfort:**

- A fast Ethernet connection facilitates easy start-up and diagnostics of machine tools and simplifies NC program use

## **STANDARD EQUIPMENT**

Siemens 808D Advance control  
 Electronic hand-wheel  
 8-station turret  
 Mobile base  
 Tailstock  
 3-jaw chuck Ø 100 mm  
 Central lubrication  
 Work lamp  
 Operating tools  
 Operating manual and programming instructions

## **OPTIONAL EQUIPMENT**

- Set of indexable inserts, SKU : 251478
- Turning tool set (7 pieces) 8 x 8 mm, SKU : 251477



## **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!**