CNC Slant Bed Lathes

LabTurn 2028 CNC

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

MEASURES AND WEIGHTS

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

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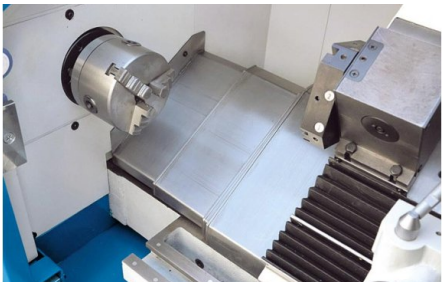
Slant bed machine frame

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

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- 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

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