



SKU : 181615

The LabCenter is ideal for CNC training, but also for the production of small workpieces. The compact and mobile CNC machining center represents the full range of functions of a large production machine. The main spindle rotates continuously variable up to 5000 revolutions and the Siemens 808 control offers an ideal introduction to CNC applications with its simple, intuitive operator guidance. With the ISO 20 spindle taper, automatic tool clamping and a 4-way pick-up tool changer, the LabCenter enables practice-oriented training.

- SIEMENS 808 Advance is the ideal introductory machine
- Preloaded ball screws on all axes
- Spindle speeds up to 5000 rpm
- 4-station tool changer
- Mobile machine base with storage space

TECHNICAL SPECS

WORKING AREA

Table dimensions	400 mm x 145 mm
Table load capacity	20 kg
Number of T-slots	3 positions
T-slots, width	12 mm
T-slots, spacing	40 mm
Spindle nose-to-table surface distance	60 mm - 240 mm
Throat	200 mm

TRAVELS

Travel X-axis	160 mm
Travel Y-axis	152 mm
Travel Z-axis	180 mm

HEADSTOCK

Spindle speed	80 1/min - 5000 1/min
Spindle mount	SK 20 ISO 7388-1 (DIN 69871)

RAPID FEED

Rapid feed	2000 mm/min
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FEED

Work feed	500 mm/min
Max. torque feed motor	2.2 Nm

TOOLING

Number of tool stations	4 positions
Tool size Ø x L (max.)	10 mm x 110 mm
Tool weight max.	0.5 kg
Tool-change time tool/tool	10 sec

ACCURACIES

Positioning accuracy X-axis	± 0,015 mm
Positioning accuracy Y-axis	± 0,015 mm
Positioning accuracy Z-axis	± 0,015 mm
Repeatability X-axis	± 0,01 mm
Repeatability Y-axis	± 0,01 mm
Repeatability Z-axis	± 0,01 mm

DRIVE CAPACITY

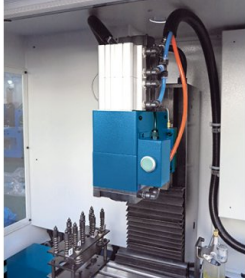
Motor rating main drive	1 kW
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MEASURES AND WEIGHTS

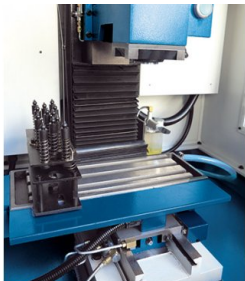
Overall dimensions (length x width x height)	1.4 m x 0.9 m x 1.8 m
Weight	450 kg



4-station tool changer



Pneumatic tool clamping



Tool holder with 4 positions



PRODUCT DETAILS

Highlights

- Compact, mobile and professional for laboratories and training
- Electronic hand-wheel for efficient and professional set-up
- Mobile base with storage room for tools and materials

Machine Design

- Precisely machined frame made of high-quality cast iron
- Dovetail guides and preloaded ball screws with servo drives on all axes

Spindle

- Max. spindle speeds up to 5000 rpm
- Spindle mount ISO 20

Tool Changer

- 4-station tool changer ensures flexibility and optimum productivity

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
 4-station tool changer
 Mobile base
 Central lubrication
 Work lamp
 Operating tools
 Operating manual and programming instructions

OPTIONAL EQUIPMENT

- Collet chucks ISO 20 / ER16, SKU : 251480
- Collet set ER 16 with collet sizes of 3, 4, 5, 6, 7, 8, 9, and, SKU : 251481
- Engraving tool set, SKU : 251482



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!**