



### SKU : 100080

With the large milling and boring mills of the BO 110 CNC series, heavy-duty machining of large and heavy workpieces is possible. The powerful Siemens 828D CNC control and the 4-position indexing turntable for multi-sided machining of workpieces in just one clamping, create solutions for a broader range of your milling and drilling work

- Manual rotary table with four 90° indexing positions (optional CNC controls)
- Powerful main motor with high torque
- Siemens 828D controller for advanced machining

## TECHNICAL SPECS

### WORKING AREA

Drilling capacity	50 mm
Table set up area	1320 mm x 1010 mm
Table load capacity	5000 kg
Number of T-slots	7 positions
T-slots, width	22 mm
T-slots, spacing	125 mm
Table rotation range	4 x 90°

### TRAVELS

Travel X-axis	1200 mm
Travel Y-axis	1200 mm
Travel Z-axis	1300 mm
Travel W-axis	550 mm

### HEADSTOCK

Speed range	12 1/min - 1100 1/min
Spindle diameter	110 mm
Spindle torque (max.)	1100 Nm
Spindle mount	BT 50 JIS (MAS 403)

### RAPID FEED

Rapid feed X-axis	10000 mm/min
Rapid feed Y-axis	10000 mm/min
Rapid feed Z-axis	10000 mm/min
Rapid feed W-axis	5000 mm/min

### FEED

Feed X-axis	20 mm/min - 1000 mm/min
Feed Y-axis	20 mm/min - 1000 mm/min
Feed Z-axis	20 mm/min - 1000 mm/min
Feed W-axis	20 mm/min - 1000 mm/min

### ACCURACIES

Positioning accuracy X-axis	0.04 mm
Positioning accuracy Y-axis	0.04 mm
Positioning accuracy W-axis	0.04 mm
Positioning accuracy Z-axis	0.04 mm
Repeatability X-axis	0.02 mm
Repeatability Y-axis	0.02 mm
Repeatability W-axis	0.02 mm
Work table rotation accuracy	12 "

### DRIVE CAPACITY

Motor rating main drive	18.5 kW
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### MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	5.5 m x 3.05 m x 3.3 m
Weight	13500 kg



## PRODUCT DETAILS

- The state-of-the-art machine frame is constructed of premium cast-iron to ensure stability and rigidity even under very heavy machining loads
- 4-side machining is supported by a manually rotated setup table that can be locked with high precision in 4 positions
- The rotary table features a large table center support area that can handle workpiece weights up to 5 tons
- The spindle speed can be controlled infinitely variable
- Siemens 828D control and drives guarantee high productivity, wide functionality and maximum precision
- Excellent functional interaction between hardware and software ensures high dynamics, while motors and drive technologies provide the necessary precision
- Precision preloaded ball screws in all axes ensure high accuracy with low wear and maintenance
- The powerful motor ensures constant torque across the entire speed infinitely range
- Telescoping steel cover protects the guides from chips and dirt
- Easy maintenance due to standard central lubrication system
- An optional controlled-positioning work table is available

## CONTROLS & SOFTWARE

### Siemens 828D control

## SINUMERIK 828 D – The workhorse in the compact class of CNCs

### Highlights

- Compact, robust, maintenance-free control panel-based CNC
- Comfortable program and parameter input via QWERTY keyboard
- Maximum machining precision
- Intelligent kinematic transformations for machining of cylindrical parts, and for angled workpiece levels
- SINUMERIK MDynamics with the new Advanced Surface feature: for perfect part surfaces and shortest machining times in mold making applications
- ProgramGUIDE: fastest machining time and maximum flexibility for large series productions
- Unique spectrum of technology cycles - from milling contours with residual material recognition to process measurements
- Animated Elements: unique operation and programming assistance with animated sequences
- Modern data transfer options via USB stick, CF card and network (Ethernet)

### CNC hardware

- Control-panel based high-performance CNC Control
- Robust front control panel made of magnesium die-casting
- Integrated full-size QWERTY keyboard
- Maintenance-free design (no buffer battery required)

### CNC performance data and functions

- Dynamic feed-forward control
- Linear, circular and helical interpolation
- Tapping without compensating chuck, plus thread cutting
- Toggle between inch and metric units
- FRAME concept for individual coordinate transformations, rotations, scaling and mirroring
- 100 adjustable zero offsets
- Synchronous actions and quick help function output

### CNC technology cycles

- Large selection of drilling cycles
- Large selection of milling cycles for standard geometry
- Large selection of position patterns for drilling and milling operations
- High-speed settings for mold making applications
- Geometry calculator for free contour input
- Machining cycle for contour pockets / contour spigots with isolated contours

### Graphic features

- Graphical online help system, similar to PC system
- Graphical CNC simulation with level display

### CNC tool management

- Display of tool and magazine data on one screen
- Tool management with plain-text tool names
- Loading/unloading feature for easy magazine assignment
- Tool management with tool life monitoring
- 10.4" TFT color monitor

## STANDARD EQUIPMENT

Siemens 828D control  
Electronic hand-wheel  
Manual rotary table with four positions indexing  
RS-232 interface  
Work lamp  
Central lubrication  
Operator manual  
Coolant system  
Machine guard screen system

## OPTIONAL EQUIPMENT

- 1° indexing CNC work table BO T 110 (L) CNC, SKU : 253424