CNC Milling and Boring Machines
BO T 110 CNC

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	1.97 in
Table set up area	52 in x 40 in
Table load capacity	11000 lbs
Number of T-slots	7 positions
T-slots, width	0.9 in
T-slots, spacing	4.9 in
Table rotation range	4 x 90°

TRAVELS

Travel X-axis	47.2 in
Travel Y-axis	47 in
Travel Z-axis	51 in
Travel W-axis	22 in

HEADSTOCK

Speed range	12 rpm - 1100 rpm
Spindle diameter	4 in
Spindle torque (max.)	811 ft.lb.
Spindle mount	BT 50 JIS (MAS 403)

RAPID FEED

Rapid feed X-axis	393.7 in/min
Rapid feed Y-axis	393.7 in/min
Rapid feed Z-axis	393.7 in/min
Rapid feed W-axis	197 in/min

FEED

Feed X-axis	1 in/min - 39 in/min
Feed Y-axis	1 in/min - 39 in/min
Feed Z-axis	1 in/min - 39 in/min
Feed W-axis	1 in/min - 39 in/min

ACCURACIES

Positioning accuracy X-axis	0.00157 in
Positioning accuracy Y-axis	0.00157 in
Positioning accuracy W-axis	0.00157 in
Positioning accuracy Z-axis	0.00157 in
Repeatability X-axis	0.00079 in
Repeatability Y-axis	0.00079 in
Repeatability W-axis	0.00079 in
Work table rotation accuracy	12 "

DRIVE CAPACITY

Motor rating main drive	24.8 Hp

MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	217 in x 121 in x 130 in
Weight	29700 lbs

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 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 5.5 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
- Integreated 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 4-position indexing
RS-232 interface
Work lamp
Central lubrication
Operator manual
Coolant system
Machine guard screen system

OPTIONAL EQUIPMENT

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