



CNC Milling and Boring Machines

BO 90 CNC



SKU : 180027

The BO 90 CNC drilling and milling machine is designed for horizontal drilling and milling of workpiece weights of up to one ton. For multi-sided machining, the clamping table can be positioned manually in 5 degree steps. The BT 40 spindle holder has automatic tool clamping and the tried and tested Siemens 828 D control system meets all the requirements of a modern CNC solution in terms of programming and handling. Experienced users will quickly become familiar with the SINUMERIK Operate user interface, which Siemens uses throughout up to the SINUMERIK 840D.

- Compact machine design
- Powerful main motor
- Manual table with 5° indexing
- Siemens 828D controller for advanced machining
- Telescoping guideway covers made of stainless steel in the work area

TECHNICAL SPECS

WORKING AREA

Drilling capacity	1.18 in
Finish bore	8 in
Milling capacity	55 cm ³ /min
Table load capacity	2200 lbs
Table dimensions	25 in x 31 in
Number of T-slots	6 positions
T-slots, width	0.7 in
Spindle axis-to-table surface distance	22.44 in
Table rotation range (5° units)	360

TRAVELS

Travel X-axis	33.1 in
Travel Y-axis	23 in
Travel Z-axis	35 in

HEADSTOCK

Spindle speed	10 rpm - 6000 rpm
Spindle mount	BT 40 JIS (MAS 403)

FEED

Feed speed X-axis	0.0394 in/min - 78.74 in/min
Feed speed Y-axis	0 in/min - 79 in/min
Feed speed Z-axis	0.0394 in/min - 78.74 in/min

ACCURACIES

Positioning accuracies	± 0,0003 in
Repeatabilities	0,0002 in
Angular accuracy	± 3"

DRIVE CAPACITY

Motor rating main drive	14.8 Hp
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MEASURES AND WEIGHTS

Overall dimensions (length x width x height)	140 in x 93 in x 83 in
Weight	13200 lbs



Multi-sided machining in one clamping



Milling spindle cover with safety switch



360° rotatable work table

PRODUCT DETAILS

Highlights

- A Siemens 828 D control with servo-driven axes meets all requirements of an advanced CNC concept in programming and handling
- Table load capacity 2205 lbs
- Multi-sided machining in one clamping by manually indexable rotary table, divisible in 5° steps
- Provides long travels on all axis and high table load capacity for machining of large parts

Machine Design

Spindle

- Heavy-duty cast-iron machine frame plus wide guideways
- Precision preloaded ball screws in all axes ensure high accuracy with low wear and maintenance
- BT 40 spindle mount with automatic tool clamping
- Max. spindle speed 6,000 rpm

CONTROLS & SOFTWARE

Siemens 828 D 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

machine guard screen system
Siemens 828 D control
Pneumatic rotary table
Electronic hand-wheel
Halogen lights
Central lubrication
Drill chuck .12 - .63 in / B18
Tool-holder bits MT4 / B18
Reducing sleeves MT3, MT4, MT5
Foundation bolts
Operating manual and programming instructions