Designed for Mold, Precision Parts and Curved Surface Machining

The Best Way for Productive and Profitable Machining

If you need to machine molds, parts or curved surfaces to closer tolerances, you need to check out the newly designed B800 Double Column VMC from FEELER. The machine series is designed with speed and accuracy in mind.

The B-800 series provides three models to choose from - the curved surface machining model, the precision parts model and the 5-Axis machining model.

Choice of Three Models:
- Curved Surface Machining Model
- Parts Machining Model
- 5-Axis Model

Double Column Vertical Machining Center

B-800-5AX
Housing Type Construction Achieves Maximum Rigidity

- All structural parts are manufactured from Meehanite cast iron and stress relieved, combined with rib reinforcement for deformation-free performance.

- Structural parts are of a box type construction that greatly increases the machine rigidity and stability.

- Extra rigid column design combined with greater span between saddle slideways to enhance the extraordinary rigidity of the machine.

Short Throat Depth for Added Machine Stability

The specially designed low throat depth design results in increased structural stability. This feature reduces thermal displacement and deformation caused by cutting torque.
Double Column Vertical Machining Center

Linear Ways on 3 Axes
The X,Y,Z-axis are equipped with high precision linear ways, providing high speed traverse and high rigidity.

Safe and Elegant Machine Outlook
The extra wide left side window combined with beautified machine back not only increases safety protection for the operator, but also upgrades the elegance of the machine.

Internal Chip Screw Design
Internal chip screw with flushing system could move chips effectively.

Fully Dust-proof Electric Cabinet
The electric cabinet is designed to be full dust-proof. All cable outlet holes are equipped with fluid-resistant clamps to effectively keep moisture from entering.

Oil/Fluid Separated Coolant Tank
The coolant tank features oil/fluid separation to avoid oil deterioration.
Crystal Scanning Control Panel

The self-illuminated crystal scanning control panel provides operator easy identification in a poor working environment. Keys are coolant-resistant, bump-resistant, oil-resistant and changeable. The control panel is an information processing center and efficiently controls all functions.

Choice of Various Controls
- FANUC 18i
- Mitsubishi M65S(M730)
- Heidenhain iTNC530
- Siemens 840D

The control box is of an ergonomical design, which permits 0°—180° swiveling for added convenience of operation. An MPG handwheel is equipped on the control box for convenient setups.

Precision Rigid Spindle

Direct-drive Spindle
- 15,000 rpm high spindle speed.
- No.40 spindle taper.
- Suitable for precision parts machining model and 5-Axis machining model.

Built-in Type Spindle
- 20,000 rpm high spindle speed.
- HSK-A63 spindle taper.
- Suitable for curved surface machining model and 5-Axis machining model.

FANUC a T8/15000i (Direct drive spindle) for 15000 rpm

Power/Torque characteristics of FANUC a T8/15000i for low speed winding

FANUC a T8/20000i (Built-in spindle) for 20000 rpm

Power/Torque characteristics of Built-in type for spindle 20000 rpm (280V)
## Machine Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Unit (B-800(A))</th>
<th>Unit (B-800(A)-SAX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C axes Tilting Rotary Table</td>
<td>-</td>
<td>Worm shaft and gear</td>
</tr>
<tr>
<td>X-axis travel</td>
<td>mm</td>
<td>800 mm</td>
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<tr>
<td>Y-axis travel</td>
<td>mm</td>
<td>500 mm</td>
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<tr>
<td>Z-axis travel</td>
<td>mm</td>
<td>500 mm</td>
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<tr>
<td>A-axis rotation angle</td>
<td>degree</td>
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<tr>
<td>C-axis rotation angle</td>
<td>degree</td>
<td>360°</td>
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<tr>
<td>Spindle nose to table surface</td>
<td>mm</td>
<td>150〜650</td>
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<tr>
<td>Table surface to floor</td>
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<tr>
<td>Table dimensions</td>
<td>mm</td>
<td>Ø550 (Ø400)</td>
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<td>Index table bore dia</td>
<td>mm</td>
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<td>T-slots</td>
<td>mm</td>
<td>18 x 5 x 100</td>
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<tr>
<td>Max. table load</td>
<td>kg</td>
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<td>Permissible cutting force</td>
<td>Kg·m</td>
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<tr>
<td>Max. speed</td>
<td>A-axis (Flute axis) mm/min</td>
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<td>C-axis (Rotary axis) mm/min</td>
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<tr>
<td>Min index unit</td>
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<tr>
<td>Position accuracy</td>
<td>A-axis (Flute axis) Sec</td>
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<td>C-axis (Rotary axis) Sec</td>
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<tr>
<td>Repeatability</td>
<td>A-axis (Flute axis) Sec</td>
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<td></td>
<td>C-axis (Rotary axis) Sec</td>
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<tr>
<td>Max. workpiece size</td>
<td>mm</td>
<td>800 x 500 x 500</td>
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</table>

### Spindle
- Spindle speed mm/min: 7/4 Taper No.40 (HSK-A63)
- Spindle: 7.5/11 (21/23.5)

### FANUC CONTROL
- X-axis rapid traverse m/min: 24 (48/60)
- Y-axis rapid traverse m/min: 24 (48/60)
- Z-axis rapid traverse m/min: 24 (36/60)

### A/T/C Tool changer
- Tool changer: Carrousel (Arm type)
- No. of tools: 20 (24)
- Pull stud: P-407 (75°)
- Maximum tool weight Kg: 8
- Maximum tool length mm: 200
- Maximum tool diameter mm: Ø80
- Max. tool dia. (no adjacent tool) mm: Ø150

### Floor space
- Floor space mm: 2,680(W) x 2,930(D)
- Machine weight Kg: 10,000
- Maximum machine height mm: 3,400
- Power capacity KVA: 50
- Air source bar: 6-8

**STANDARD ACCESSORIES**
- 15,000 rpm Direct-drive spindle
- 3 axes pretensioned ball screws
- Spindle air sealing
- Spindle oil cooler
- Automatic lubrication system
- Internal double chip screw
- Water-oil separator system
- Air conditioner for electric cabinet (S AX)
- Dust-proof electrical cabinet
- 3-color signal light
- Coolant flushing gun
- Working Light
- Top roof
- Spindle temperature sensor

**OPTIONAL ACCESSORIES**
- 20,000 / 24,000 rpm Built-in spindle
- X / Y / Z axes rapid traverse 48 / 48 / 36 m/min
- X / Y / Z axes rapid traverse 60 / 60 / 60 m/min
- A / C axes linear scale
- 3 axes linear scale
- 3 axes hollow ball screw coolant system
- Automatic tool length measurement and breakage detection
- Workpiece measurement
- Chip conveyor or Chip screw
- Arm type 50 tools A/T/C (Max. tool diameter Ø76)
- Rear cover
- Transformer
- CE modification
- Rear flashing