



## Benchman MX

### SPECIFICATIONS

#### Axis Travel

- X Axis 12" or 18" (304mm or 457mm)
- y Axis 7" (178mm)
- Z Axis 9.5" (241mm)

#### Work Area

- Table Size - 19.5"x6.25" (495mm x 159mm)
- Table Load Cap. 150lbs. (68kg)
- Threaded matrix 3/8"-16, 1" on center
- Open Height 12" (304mm)
- Throat clearance 6.75" (171mm)

#### Spindles

- 1 HP - 0-5,000 rpm
- 1 HP - 0-10,000 rpm
- 1 HP - 3,000-39,000 rpm
- 0.8 HP - 10,000-50,000 rpm

#### Axis Drive Motors

- Motor - DC Servo
- Feed Rate - 0.1-200 ipm (2-5080mm/min)
- Torque - 42 oz.in.(30Ncm)

#### Accuracy

- Positioning - +/- 0.0002" (0.00508mm)
- Repeatability - 0.0001" (0.00254mm)
- Resolution - 0.00002" (0.000508mm)

· Each machine is calibrated and verified with a laser interferometer at factory. Operating temperature is 72°F (22°C). Accuracy is dependent on temperature and other operating variables.

#### Dimensions

- Width: 34-48" (864-1219mm)
- Height: 56.5" (914mm)
- Depth: 48" (1219mm)
- Weight: 400lbs (181kg)
- Shipping Weight: 500-1000lbs (227-434kg)
- Accessories: 11 lbs (5kg)

#### Programming

- Compatibility with EIA RS274-D standard G&M codes
  - Fanuc compatible
  - CAD/CAM compatible
- Absolute or incremental programming
  - Advanced NC code editing
- Pause, dwell, chain and repeat functions
- Clockwise and counter-clockwise spindle direction
  - Canned cycles for drilling and boring
- Programmable tool offsets and cutter compensation
  - Tool length offsets for 199 tools
- Programmable tool offsets and cutter compensation
  - English and metric units
- Unlimited open programs and program blocks
  - Multiple coordinate systems
  - Macro programming

#### Interpolation

- Rapid, linear, circular and helical interpolation
- Circular interpolation with center point or radius input
  - Contouring 4th axis interface, optional

#### Operation

- Manual cycle start and stop
- Manual program pause and feedhold
- Manual override spindle speed, 50-150%
- Manual override feed rate, up to 200%
- Computer-controlled jog, go to and traverse motion
- Single block and continuous run operational mode
  - Optional skip and stop

#### Controller

- 32-bit DSP motion control card
- Control area network (CAN bus) link
- On screen help & error messages
- Instantaneous position readout of X, Y, Z, & A axes
- Real-time or simulated tool path verification view
  - Spindle load monitor