

## Educational CNC eXpertMill VMC-0600

### SPECIFICATIONS

#### Construction

Cast aluminum machine base  
Fully enclosed chip tray  
Aluminum cross slide, 3/8" - 16 matrix  
Linear motion system

Ball bearing linear guide rail system  
Zero backlash leadscrew  
Axis travel

X Axis: 304 mm (12")  
Y Axis: 152 mm (6")  
Z Axis: 241 mm (9.5")  
Open height: 279 mm (11")  
Work area

Nickel plated table size: 436 mm x 127 mm (17" x 5")  
VMC style 3/8 - 16 matrix (1")  
Spindle

Spindle: 746 W (1 hp)  
Motor type: DC permanent magnet  
Dual speed range: low 0-3,000 RPM; high 0-6000 rpm  
Throat: 139 mm (5.5")  
Accuracy

Repeatability: 0.0127 mm (0.0005")  
Resolution (half step): 0.0032 mm (0.00013")  
Axis drive motors (base machine)

Stepper motors: 97 Ncm (137 oz.in.), 200 step/rev  
Feed rate: 2-1905 mm/min (0.1-75 ipm)  
Rapid traverse: 1905 mm/min (75 ipm)  
Axis drive motors (high performance controller)

Stepper motors: 179 Ncm (253 oz.in.), 200 step/rev  
Feed rate: 2-3810 mm/min (0.1-150 ipm)  
Rapid traverse: 3810 mm/min (150 ipm)  
Interfaces

PCI connections to PC and robot controller  
Illuminated robotic interface 8 inputs 8 outputs  
Interpolation

Rapid, linear, circular and helical interpolation  
Circular interpolation with center point or radius input  
Programming standards

EIA RS274-D standard G&M codes  
Fanuc-compatible NC code subset  
CAD/CAM compatible  
Subprograms  
Programming and control

CNCBase - programming and control software  
CNCMotion - 3D simulation software (optional)  
spectraCAM Milling - CAD/CAM software (optional)  
Dimensions

Width: 889 mm (35")  
Depth: 685 mm (27")  
Height: 850 mm (33.5")  
Weight

Machine: 115 kg (250 lb)  
Shipping: 149 kg (325 lb)  
Power requirements

International: 230 VAC (+5%/-10%), 50-60 Hz, 8A  
United States: 115 VAC (+5%/-10%), 50-60 Hz, 15A  
Safety features

Certified for CE safety compliance  
Transparent Lexan safety shield with gas-operated shock for easy opening  
Emergency stop switches: on front panel; on keyboard  
2 limit switches on each axis of travel  
Keylock on electronic control box  
LED indicators: 8 inputs/8 outputs; controller on/off switch; axis drive power; axis limit switches; emergency stop; safety shield  
Illuminated spindle speed display  
Machine homing feature on all 3 axes