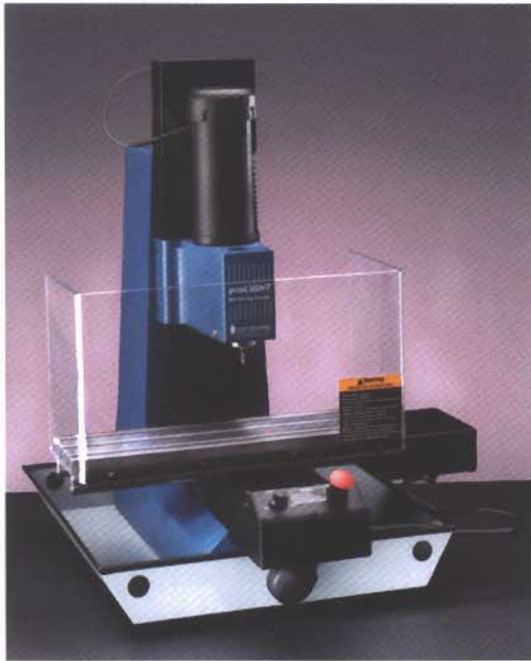


proLIGHT™ 1000 Machining Center



Standard Features

Vibration-dampening polymer composite machine base

Built-in chip tray

Gortite® way covers

Precision-ground cast iron table

Linear motion system:

- Zero backlash ball screws
- 3/4" (19.05 mm) precision-ground and hardened shaft
- Wipers on all slides
- Low-friction linear bearings
- Easily accessible oil ports

Tooling/Accessories:

- 3/8" (9.5 mm) R8 Collet
- 1/4" (6.350 mm) High-Speed Steel, 4-flute, center-cutting end mill with 3/8" (9.5 mm) shank
- Spindle locking pin, hex keys, drawbolt, and oil can
- Set of hold-down clamps
- AC power cord
- 25 pin computer cable and accessory port adapter cable

User's Guide/Software

Installation and Use Video

Machine Specifications

Axis Travel

X Axis	12"	(305 mm)
X Axis w/ATC	7.75"	(197 mm)
Y Axis	6"	(152 mm)
Z Axis	9"	(229 mm)
Open Height	9.5"	(241 mm)
Open Height w/ATC	8"	(203 mm)

Work Area

Table Size	19.5" x 6.25"	(495 mm x 159 mm)
Table Load Capacity	100 lbs.	(45 kg)
No. of T-Slots/Size	three 3/8"	T-Slots

Spindle

Drive Motor	1 hp (746 W)	
Motor Type	DC Permanent Magnet	
Speed Range	0 - 5,000 RPM	
Spindle Nose	R8 taper	
Collet Capacity	up to 0.875"	(22 mm)
Throat	6.25"	(159 mm)

Accuracy

Ballscrew	0.001"/ft. (0.025 mm/300 mm)
Repeatability	0.0005" (0.0127 mm)
Resolution	0.00025" (0.00635 mm)

Axis Drive Motors

Linear Feed Rate	0.1 - 25 ipm (2 - 635 mm/min)
Circular Feed Rate	0.1 - 18 ipm (2 - 457 mm/min)
Rapid Feed Rate (X,Y)	50 ipm (1270 mm/min)
Rapid Feed Rate (Z)	40 ipm (1016 mm/min)
Stepper Motors	150 oz. in. (105 Ncm), 200 step/rev

Power Requirements

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

Dimensions

Width	26"	(660 mm)
Depth	32.5"	(825 mm)
Height	32.5"	(825 mm)

Weight (approximate)

Machining Center	365 lbs.	(166 kg)
Shipping	445 lbs.	(202 kg)
Accessories	28 lbs.	(13 kg)



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proLIGHT

proLIGHT™ 1000 Machining Center Specifications

Control Specifications

Interpolation

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

Programming Standards

EIA RS274-D standard G & M codes
Subprograms
Fanuc®-compatible
CAD/CAM compatible

Programming Modes

Incremental and absolute programming
G & M codes for robotic interfacing
Inch or metric programming
Supports digitizing with formatted output
Scaling, rotation, mortoring and subprograms

Programming Features

Programmed pause, dwell, chain, and repeat functions
Programmable on/off spindle motor with M codes
Programmable spindle speed control with S codes
Canned cycles for drilling and boring
Align/homing command
Tool length offsets for 199 tools
Cutter compensation
Multiple coordinate systems

Operational Modes

Programmed feed rate control
Manual or programmed spindle speed control
Feed rate override
Cycle start and stop
Program pause and feed hold
Computer-controlled jog, go-to, and traverse motion
Operational mode: single block and continuous run
Optional skip and stop

System Input

Calculator-style input for numeric data entry
Keyboard- or mouse-operated menus
Full screen editor support with keyboard or mouse

System Feedback

Error messages
HELP functions on screen
Instantaneous position readout of X, Y, and Z axes
Real time or simulated 3-D solid centerline tool path verification

Electronic Interface

Controller Box
ISA computer interface card
Computer interface cable
Control software on 3.5" disks

System Interfaces

ISA bus to host computer
Robotic interface with TTL I/O
Optically isolated AC outputs

Safety Features

Transparent safety shield with interlock switch
Emergency Stop switch on front panel
Emergency Stop on keyboard
End of travel limit switches and stops on each axis
Keylock on electronic control box

Computer System Requirements

Pentium P120 or faster personal computer with:
Minimum of 32 MB RAM
Industry Standard Architecture (ISA) bus
Hard drive with minimum of 5 MB available space
3.5" floppy disk drive
VGA graphics and monitor
Windows® 95/98/NT™ 4.0
Serial Port
Parallel Port

Accessories

Low profile Clamping Kit
Vise with Hold-downs
6" x 8" (152 mm x 203 mm) Pallet System
6" x 8" (152 mm x 203 mm) Additional Pallet
52-Piece Hold-Down Set & Vise
Digitizing Package
Mobile Workstation w/Storage Cabinet
Vacuum System
Precision clamping vise and relating interface
Portable Air Compressor
spectraCAM™ Milling (Windows® Edition) *
spectraCAM™ Milling & Turning (Windows® Edition) *
* Requires Windows® 95/98/NT™

Tooling

Machining Center Machinist Kit
End Mill Package
Jacob's J6 Drill Chuck with R8 to J6 Arbor
Quick Change Tooling
1/8" (3.175 mm) Quick Change Tool Holder
3/16" (4.57 mm) Quick Change Tool Holder
1/4" (6.350 mm) Quick Change Tool Holder
3/8" (9.525 mm) Quick Change Tool Holder
1/2" (12.7 mm) Quick Change Tool Holder
J2 Taper Quick Change Holder
ER-16 Quick Change Collet Holder
ER-20 Quick Change Collet Holder
ER-20 Tool Holder for ATC
Automatic Tool Changer Tool Holder Package
ER-16 Collet Set
ER-20 Collet Set
Engraver Tool Set