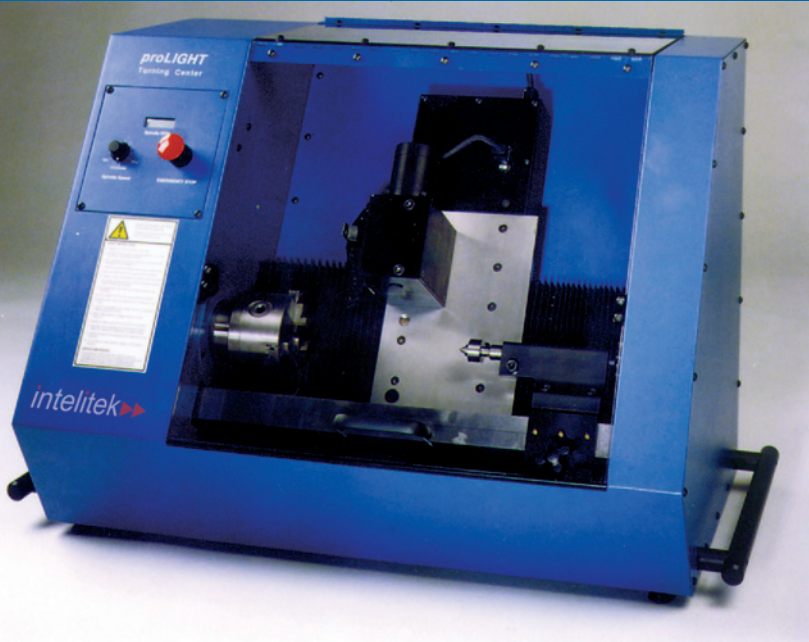


proLIGHT™ 3000 Turning Center

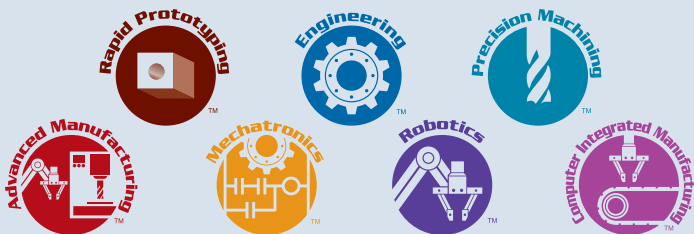


proLIGHT 3000 shown with tool turret.

Make the proLIGHT™ 3000 Lathe part of a comprehensive STEM program!

The proLIGHT™ 3000 Lathe can be combined with intelitek's dynamic e-learning content as part of a comprehensive engineering program! Customize your program by combining standards-based LearnMate™ E-Learning curriculum for

- Rapid Prototyping
- CAD
- Engineering
- Precision Machining
- Advanced Manufacturing
- and more!



The proLIGHT™ Lathe is a versatile and affordable desktop CNC turning center that enables you to deliver robust instruction in computer numerical control and advanced manufacturing.

This two-axis turning center fits comfortably into any classroom, without sacrificing features. With a machined and ground cast iron base it is able to machine most materials, including steel. Like larger industrial machines, the proLIGHT™ Turning Center uses EIA, ISO, and Fanuc-compatible G&M code programs. The proLIGHT 3000 also features a totally enclosed cabinet, a 5C spindle, a 4" self-centering chuck and a collet capacity of up to 1-1/16".

The turning center is capable of internal machining and threading. Options include manual quick-change tooling, an automatic tool turret, and a factory-installed tailstock.

The user-friendly control software supports linear and circular interpolation, multi-tool programming, canned cycles, cutter compensation and threading.

For thousands of schools and industrial training programs worldwide, the proLIGHT™ is the system of choice for preparing students for challenging careers in engineering, manufacturing, and industrial technology.

P O W E R E D B Y



The proLIGHT™ Lathe is the perfect classroom solution, with exceptional ease-of-use, safety features and reliability. Combined with intelitek's in-depth course "CNC Turning Technology with the proLIGHT™ Lathe", students gain excellent exposure to in-demand skills for tomorrow's workforce.

The proLIGHT™ Lathe curriculum features topics tailored to the proLIGHT™ Lathe, delivered in an engaging online format with interactive simulations and step-by-step procedures.

proLIGHT™ 3000 Turning Center

Machine Features

Standard Features

- Cast iron machine base
- Built-in chip tray
- Gortite® way covers
- Precision-ground steel table
- Digital spindle speed display
- Connector for automatic tool turret
- Linear motion system:
 - Zero backlash ball screws
 - ¾" (19.05 mm) precision-ground hardened shaft
 - Wipers on all slides
 - Low-friction linear bearings
 - Easily accessible oil ports
- Included tooling/Accessories:
 - 4" (102 mm) 3-jaw self-centering chuck
 - Chuck key
 - Spindle Wrench
 - Oil can
 - AC power cord
 - Accessory port adapter cable
 - 25 pin computer cable

User's Guide/Software

Safety Features

- Transparent Lexan® safety shield with interlock switch
- Emergency Stop switch on front panel
- Emergency Stop on keyboard
- Limit switch on Z axis
- Keylock on electronic control box

Machine Options

- proLIGHT 3000; 115V, 60 Hz
- proLIGHT 3000 with Tailstock, 115V
- proLIGHT 3000; 230V, 50 - 60 Hz
- proLIGHT 3000 with Tailstock, 230V

Factory Installed Options

- Pneumatic Shield Opener
- Air Chuck Robotic Interface
- Automatic Tool Turret w/Tool Turret Tooling Package

Accessories

- Mobile Workstation w/Storage Cabinet
- Turning Stock Packages (Brass, Aluminum, Delrin, Wax)
- Portable Air Compressor
- spectraCAM™ Turning Software

Tooling

- Quick Change Tooling Package for Turning Center
- Quick Change Tool Post and Profiling Tool
- Additional Tool Turret Tooling Package
- 5C Collet Set

E-learning Curriculum

- CNC Turning with proLIGHT 3000 (includes):
 - proLIGHT 3000 Turning Center with Tailstock
 - proLIGHT 3000 CNCBase Software
 - Automatic Tool Turret
 - Tool Turret Tooling Package
 - Safety Glasses
 - Brass Turning Stock Package

Machine Specifications

Axis Travel

X Axis	4"	(102 mm)
Z Axis	10"	(254 mm)
Swing over bed	6"	(152 mm)
Swing over cross slide	3.9"	(99 mm)

Work Area

Table Size	11.5" x 7"	(292 mm x 178 mm)
Table Load Capacity	100 lbs.	(45 kg)

Spindle

Drive Motor	1 hp (746 W)
Motor Type	DC Permanent Magnet
Speed Range	0 - 1,200 RPM and 0 - 3,600 RPM
Spindle Nose	Threaded 2.25-8 UN-2A-RH
5C Collet Capacity	up to 1-1/16" (25 mm)

Tailstock (Optional)

Taper	Morse #1	
Stroke	1.5"	(38 mm)
Center distance	9"	(229 mm)

Accuracy

Ballscrew	0.001"/ft.	(0.025 mm/300 mm)
Repeatability	0.0005"	(0.0127 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	50 ipm (1270 mm/min)
Stepper Motors	150 oz. in. (105 Ncm), 200 step/rev

Power Requirements

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

Dimensions

Width	36"	(914 mm)
Depth	22"	(559 mm)
Height	24"	(610 mm)

Weight (approximate)

Turning Center	245 lbs.	(111 kg)
Shipping	315 lbs.	(143 kg)

Electronic Interface

- Controller Box
- PCI computer interface card
- Computer interface cable
- Control software

System Interfaces

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

Computer System Requirements

- Intel / AMD Single Core 1.6GHz
- 512MB RAM
- 300MB Available Disk Space
- One Full Height PCI Slot
- Windows XP SP3 / Vista / 7 - 32 or 64bit

Control Specifications

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 threading, turning, and drilling
- Align/homing command
- Tool offsets for 199 tools
- Cutter compensation
- Multiple coordinate systems

Programming Standards

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

Interpolation

- Rapid and linear interpolation
- Circular interpolation with center point or radius input
- Threading, single-point with multi-pass

Programming Modes

- Incremental and absolute programming
- G & M codes for robotic interfacing
- Inch or metric programming
- Scaling, rotation, mirroring and subprograms

Operational Modes

- Programmed feed rate control
- Feed rate override
- Cycle start and stop
- Program pause and feedhold
- Manual programmed spindle speed control
- 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 and Z axes
- 2-D graphic tool path verification

Affiliated with:



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