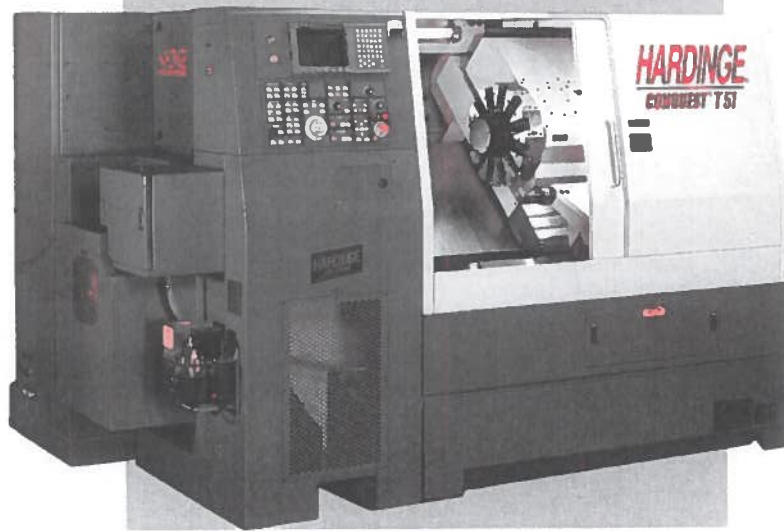


# CONQUEST<sup>®</sup> T51

## CNC LATHE



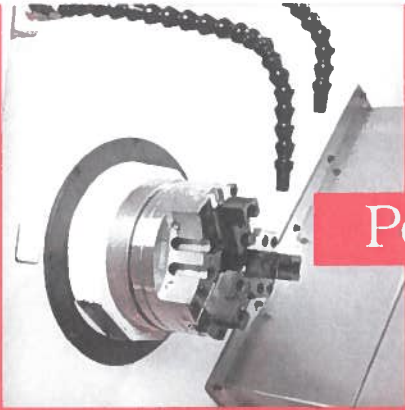
### CONQUEST T51

CNC Slant Bed Lathe  
*for quality and reliability*

Power and Precision.

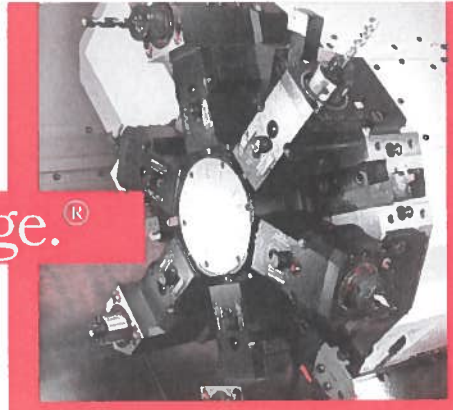
Perfected by

# HARDINGE



# Power and Precision.

Perfected by Hardinge®



Providing you heavy metal removal and precision turning for profitable production of large- and medium-diameter parts.

## CONQUEST® T51 LATHE FEATURES:

- Precision 2" bar capacity collet spindle
- Powerful 20-hp spindle-drive system
- 2-1/2" bar capacity "Big-Bore" Hi-Torque spindle option
- Powerful 3,000-rpm live tooling option
- C-Axis spindle option for contour milling
- Simple, rigid turret and tooling system
- Programmable MT No. 4 hydraulic tailstock
- A2-5" 16C, 7-1/2 hp sub-spindle option
- Heavy-duty linear guideways for longer life and improved machining accuracy
- 2,250-lb Z-Axis thrust for efficient drilling
- Super-stable, 6,300-lb Harcrete® polymer composite base
- Wide selection of quality collets, chucking systems and tooling available

## PRODUCTIVITY YOU DEMAND:

- Go from bar to jaw chuck to step chuck work in minutes
- Spindle nose provides optimum machining area
- "Electronic gear box" allows fast speed changes
- Faster traverse rates for reduced cycle time
- Reliability—two-year or 6,000-hr warranty on machine and control!

## PERFORMANCE YOU EXPECT:

- Power, torque and rigidity for heavy roughing, yet capable of attaining better accuracies and surface finishes than other similar-capacity machines
- Hi-torque option allows heavier cuts at lower rpms
- Hardinge collet spindle permits longer bar turning capacity
- Harcrete base ensures superior finishes and extends tool life 30% or more

## PROFITABILITY YOU DESERVE:

- Faster cycle times
- Proven reliability for maximum uptime
- JIT machining
- Crash-protection features for reduced service and maintenance costs
- Results listed were derived from actual tests conducted at Hardinge. Due to varying cutting conditions, actual results may be greater or less than those listed.

## CONQUEST® T51 LATHE SPECIFICATIONS:

### Spindle

Spindle Configuration	ANSI A2-6"
Round 20C Collet (Through Capacity)	2"/51mm
20C Step Chuck (Gripping Capacity)	6"/152mm
8" Jaw Chuck (Gripping Capacity)	6.5"/165mm

### "Big Bore" Option With Hi-Torque Spindle Drive

ANSI A2-8"	
Round 25C Collet (Through Capacity)	2.56"/65mm
25C Step Chuck (Gripping Capacity)	8.0"/203mm
10" Jaw Chuck (Gripping Capacity)	8.5"/216mm

### Standard AC Digital Spindle Drive System

Torque Rating @ 525 rpm	200ft-lb/ 272Nm
Speed Range (1-rpm Steps)	50 to 4,200 rpm

### Hi-Torque Option AC Digital Spindle Drive System

Torque Rating @ 429 rpm	245ft-lb/ 333Nm
Speed Range (1-rpm Steps)	30 to 3,429 rpm

### Carriage and Cross Slide

Max. Swing Over Z-Axis Way Cover	26.0"/660mm
Max. X-Axis Travel	6.75"/171.5mm
Max. Z-Axis Travel	22.875"/581mm

### Vertical Turret (with or without Live Tooling Option)

No. of Stations	12 (6-Live Opt.)
No. of Stations ("Big-Bore" Option)	10 (5-Live Opt.)
Max. Square Shank Tool Size	1" 25mm
Max. Round Shank Tool Size	1-1/2" 40mm
Max. Distance from Spindle Face to Turret Face	23.12"/587.3mm

### Miscellaneous

Compressed Air Requirement	70 to 90 psi, 5 to 6 scfm
----------------------------	------------------------------

Approx. Shipping Weight (Base Machine)	15,000 lb/ 6804kg
--	----------------------

Machine Dimensions	
Length	110.4"/ 2804.2mm
Length w/Chip Removal System	151.5"/ 3848.1mm
Depth	68.7"/1745mm
Height	71"/1803mm

### Inspection Specifications\*

Part Surface Finish	12 micro-inch/ 30 micron
Overall Axis Repeatability	.000050"/ 1.27 micron
Turret Indexing Repeatability	.000080"/ 2 micron
Turret Indexing Accuracy	± 1 arc second

Hardinge/GE Fanuc 32-Bit 18-T CNC Control (see brochure 1121)



"Hardinge Quality. Redefining Craftsmanship for the 21st Century."

Hardinge Brothers, Inc.  
Elmira, NY 14902-1507 USA

To order, call: **800-843-8801**  
All other calls: **607-734-2281**  
Fax: **607-734-8819**

Part No. C -0009500-1111

All marks indicated by ® or ™ are trademarks of Hardinge Brothers, Inc. All tooling shown is optional. All specifications are subject to change without notice.

Brochure 1111