

TURNING

SR-Series Heavy-Duty
Universal Chuck and Bar
Turning Centers



TURNING MILLING GRINDING WORKHOLDING
www.hardinge.com

 **HARDINGE**
EXPECT MORE™

SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Featuring our world-famous spindle, delivering
unparalleled performance

SR-Series chuck and bar machines redefine the meaning of strength and reliability, creating a new benchmark in the industry for turning centers utilizing a 3-jaw chuck. Well known for superior spindle design and construction, Hardinge now adds the all-new heavy-duty SR machines to its line-up of multi-functional turning centers. The SR's superior vibration damping is accomplished through the use of heavy-duty linear roller guides mounted to a HARCURETE-reinforced cast iron base, allowing you to tackle the toughest work virtually vibration free while reducing your expenditure on today's high-performance tooling.

So whether it's heavy-metal removal in low or high-volume production, the new SR machines will allow you to work with confidence to get your jobs done for less!

**BUILT
IN THE
U.S.A.**



SR 150 and SR 200

Job Turning S M MY MS MSY



SR machines offer superior features and performance for both job shops and production environments. The machines can be configured for 2-axis turning or for complex multi-tasking operations in a single set-up.

Standard features include:

- Powerful and rigid spindle with 3-jaw chuck
- Rigid HARCURETE®-reinforced cast iron base
- 187-psi through-tool coolant
- Heavy-duty roller guideways, ball screws and axis drives
- Environmentally-friendly grease lubrication
- Linear glass scale (X-axis)
- User-friendly pendant-mounted control
- Manual Guide *i* programming
- Ethernet connectivity

Unique features that make the SR-Series the best in the industry!

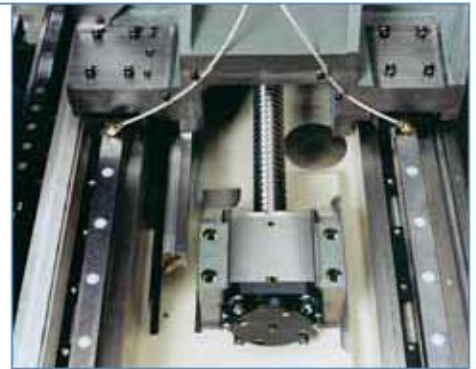
Rigid machine base

See page 4



Heavy-duty roller guideways, ballscrews and axis drives

See page 5



Powerful and rigid spindle

See page 6



Unique ESA turret top plate and tooling system option

See page 8

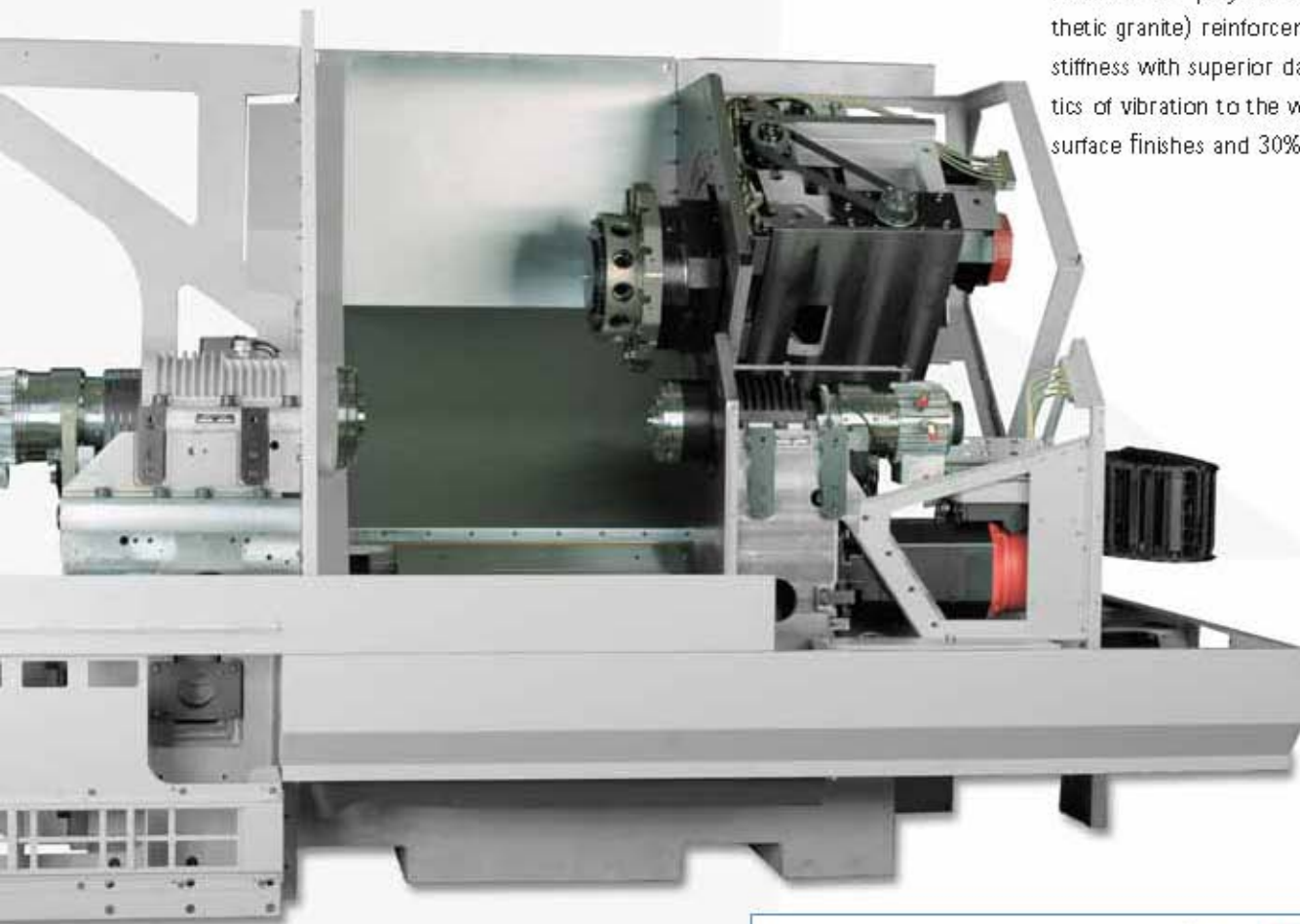


SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Rigidity that is built like a rock from the ground up

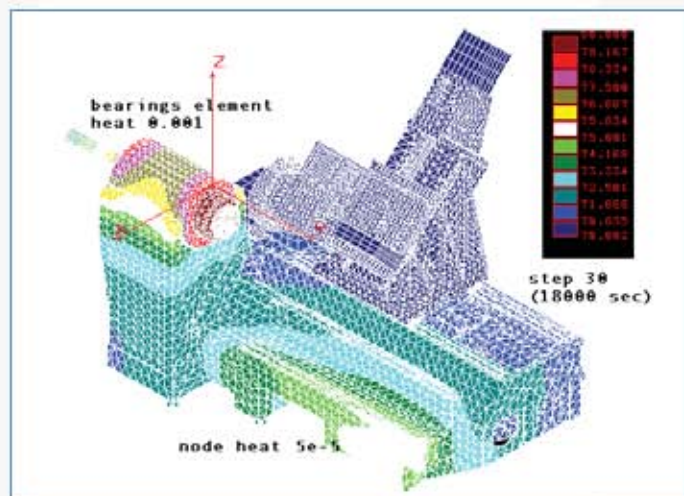
Rigid machine base

Our rugged cast iron bases with HARCRETE® polymer composite (synthetic granite) reinforcement offer added stiffness with superior damping characteristics of vibration to the workpiece for finer surface finishes and 30% longer tool life.



FEA (Finite Element Analysis)

FEA (finite element analysis) techniques were used to design a rigid, structurally balanced machine, resulting in superior damping characteristics for minimized vibration to the workpiece, heavy cutting capability, extended tool life and fine surface finishes.



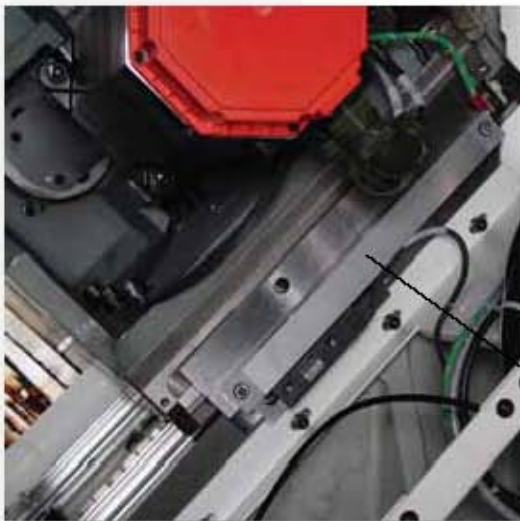
Heavy-duty roller guideways, ballscrews and axis drives create the optimum performance characteristics

Heavy-duty roller guideways, ballscrews and axis drives

Wide-spaced, oversized roller guideways offer superior stiffness and rigidity with less friction, less heat and less thermal growth for faster traverse rates, longer machine life and greater positioning accuracy. The roller way modules consist of slide members (guide trucks) and roller rails to provide high rigidity and low friction. The spacing between the Z-axis rails provides optimum stiffness for the overall machine design. Oversized 1.57"/40mm ballscrews are featured. Torque limiters are provided as standard equipment.



Z-Axis roller guideway



X-Axis linear scale

Linear glass scale

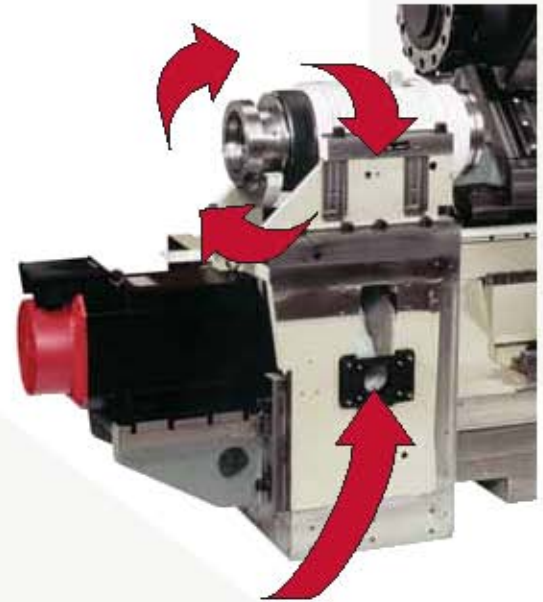
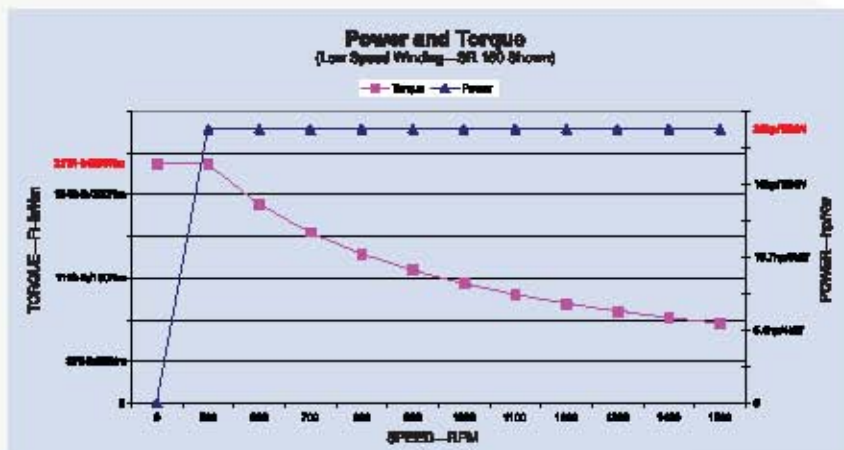
A Heidenhain linear scale is provided on the X-axis for high machining performance over a large number of parts. The closed-loop linear scale system for positioning accuracy provides direct measurement to compensate for ball screw thermal growth and wear over the life of the machine.

SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Unprecedented performance characteristics

Powerful and rigid spindle

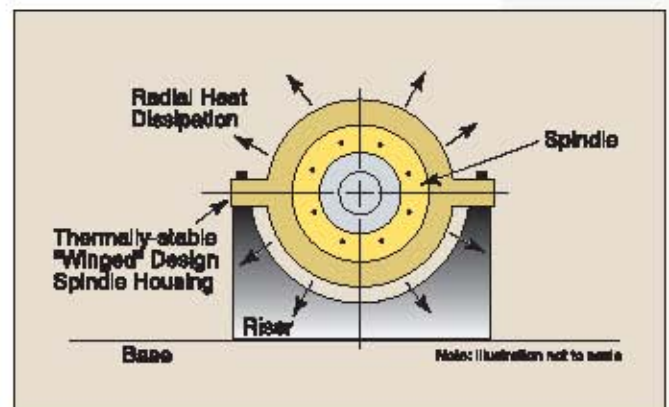
Our powerful main spindle drive provides all the power and torque you'll need to do heavy turning, drilling and rigid tapping operations. Hardinge-built spindles are hardened & ground and of one-piece construction. They are mounted in a high-strength cast iron headstock housing and mounted to the HARCRETE-reinforced cast iron base for optimum stiffness, rigidity and damping. In addition, a labyrinth seal shields coolant from the spindle bearings. This design accommodates the use of higher pressure coolant systems.



Continuous air flow

Headstock Cooling

The spindle incorporates a unique "thermocentric" design that provides exceptional thermal stability for increased part accuracy. The design utilizes principles of symmetry and thermal isolation to minimize the transfer of heat generated by the spindle bearings into the cast iron machine structure. The spindle head incorporates a "winged" construction that rigidly connects it to a cast iron riser for maximum rigidity and minimum thermal contact area. The unique symmetry of the design allows the spindle head to warm up without affecting location of the spindle centerline. Air blows through the riser to cool the spindle, minimizing its expansion. The air then flows through a space between the spindle head and riser, cooling the spindle structure and removing heat before the air can migrate to the riser. The thermal expansion error associated with machine warm-up is greatly diminished, effectively by isolating the warm spindle head and limiting the heat that could have transferred to the cast iron structure.



Wide range of optional equipment to increase your productivity

Tailstock



Polygon turning

When used with live tooling, this feature allows cutting square, hexagon or other polygon shapes on workpiece ODs.

C-Axis contouring (main and sub spindle)

Polar, cylindrical and 3-axis interpolation allows unlimited machining capabilities when used with the live tooling option—positioning increments of .001 degree (C-Axis is standard on SR M, SR MS and SR MSY models).

A2-5 Sub spindle

The sub spindle offers a thru-capacity up to 1 $\frac{1}{2}$ "/42mm with 16C collets and a gripping capacity of 5 $\frac{1}{2}$ "/139mm with 6"/150mm jaw chucks. Exact synchronization between the main and sub at any rpm can be programmed for part transfer for secondary machining.

Sub spindle (part present sensor shown)



On-the-fly part transfer between main and sub spindle

Additional optional features include:

- ESA 12-station top plates
- Hardinge T-style 10- and 12-station top plates
- Part probe
- Automatic tool touch probe
- Air blast system (main spindle)
- 1,000-psi High-pressure coolant
- Thru-spindle coolant (main or sub spindle)
- Sub spindle parts catcher
- Chip conveyor
- Bar feed systems
- Power transformers
- 3-Position stack light
- Manual VDI tool presetter system

High-precision option:

- Real time thermal compensation algorithm
- Up to .000030" part roundness capability
- Linear Glass scales on the X and Z axes
- .000010"/.0001mm programmable resolution/ tool offset capability
- Fully ball-bar tested for accuracy
- Laser compensated in both X and Z axes
- Tested on a chuck spindle machine

Exclusive Hardinge technological feature available:

- HydroGlide Hydrostatic Guideways—machines equipped with high-precision option only

Out-of-the-box automation solutions



Parts catcher



Parts conveyor

SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Turret top plate and tooling systems to enhance your throughput capability

A VDI turret top plate is standard equipment on SR turning centers—with or without live tooling and Y-axis options. The optional ESA (Eppinger Self Alignment) turret and top plate and tooling system is available for increased tool rigidity. A Hardinge T-style top plate for static tooling compatibility with QUEST® and CONQUEST® T42/T51/T65 lathes equipped with a T-style top plate is also available.

Live tooling

This option is available on VDI 30 and ESA top plates to work on the main spindle or sub spindle (standard on SR M, SR MS and SR MSY models). Each station can be equipped with a driven tool for cross- or end-milling/drilling operations in the toughest materials. One-degree spindle orient is included. Internal and external coolant-style live tool holders are offered to direct coolant to the work area. Angular drilling or milling is easily accomplished using adjustable live tooling attachments. Air/oil mist lubrication is included.

Y-Axis option

Perform thread milling and complex off-center milling and drilling operations on either the main or sub spindle option—3.38"/85.6mm overall travel!

Rigid tapping

Rigid tapping is standard capability on the main spindle and sub spindle option, as well as cross- and face-working operations on machines equipped with the live tooling option.

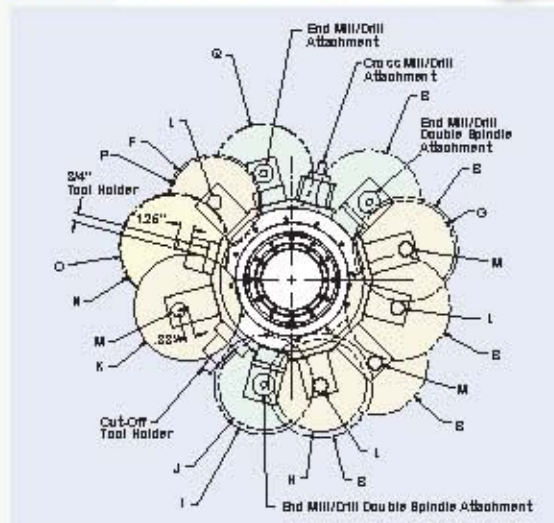


Optional ESA top plate



Standard VDI top plate

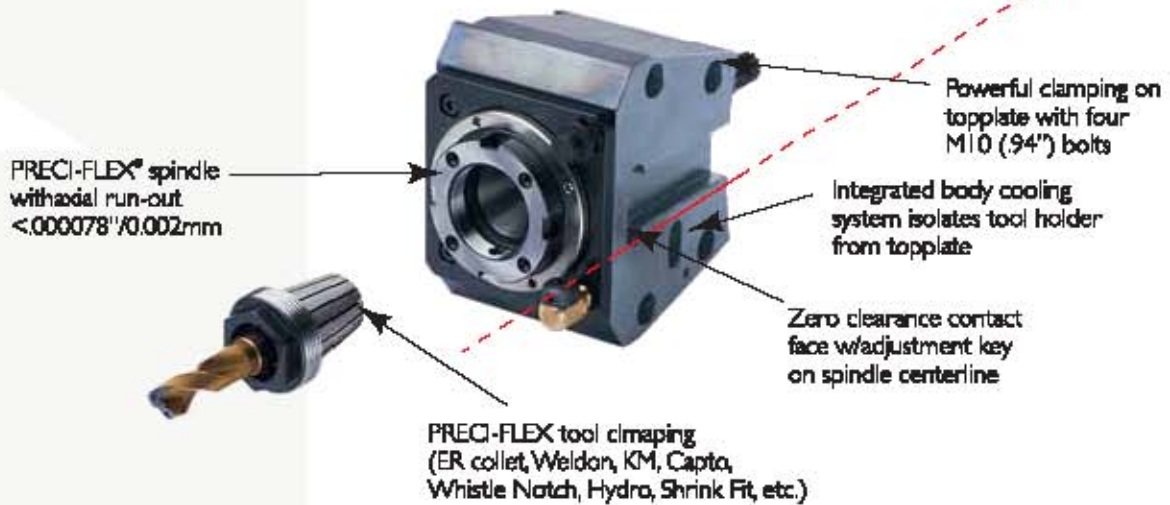
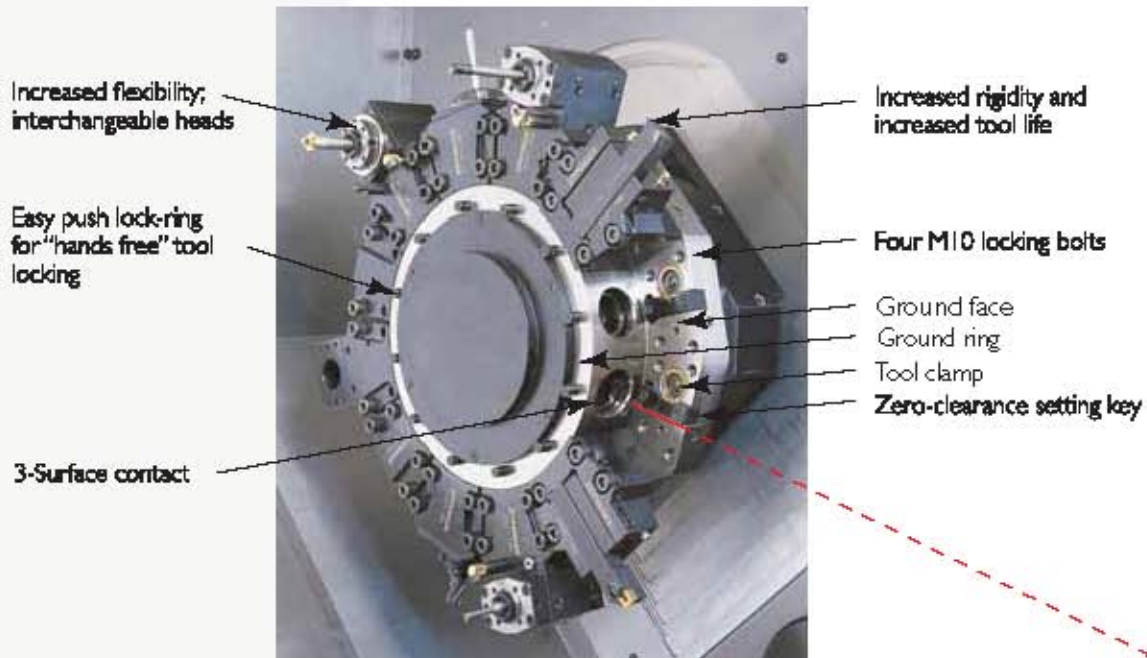
Minimal VDI tool interference



The illustration represents the maximum part diameters that can clear adjacent tool holders.

Diameter	Dimension	Diameter	Dimension
A	9.46"/240.3mm	J	7.90"/200.7mm
B	9.18"/233.2mm	K	9.36"/237.7mm
C	8.71"/221.2mm	L	2.75"/70.0mm
D	9.36"/237.7mm	M	3.46"/88.0mm
E	9.39"/238.5mm	N	9.66"/245.4mm
F	8.13"/206.5mm	O	9.41"/239.0mm
G	8.53"/216.7mm	P	8.32"/211.3mm
H	8.06"/204.7mm	Q	8.72"/221.5mm
I	8.70"/221.0mm		

Hardinge's exclusive ESA turret top plate and tooling system



Experience 3 to 5 times longer tool life with the PRECI-FLEX spindle and adapter system

Run out adapter:	$< .00078'' / < 0.002\text{mm}$
Run out tool tip (shrink fit type):	$< .00012'' / < 0.003\text{mm}$
Tool change:	$< 60\text{ sec}$
Repeatability:	$< .00012'' / < 0.003\text{mm}$
Tool clamping force:	$> 4 \times \text{collet}$
Chip removal volume:	$> 2 \times \text{collet}$
Increased insert/tool life:	$+ 3-5 \times$



SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

All the control you'll ever need right at your fingertips



Hardinge GE Fanuc i Series SR controls feature many standard multi-tasking capabilities other machine tool builders charge extra for—graphic toolpath display, rigid tapping, tool life management, stored stroke check 2 & 3, variable lead thread cutting, and run time and parts counter.

General

- Two Interpolating Axes ●
- Programmable Resolution—.00010"/.0010mm ●
- (High-Precision Option—.00010"/.00010mm) ○
- Tool Offset Capability—.00010"/.0010mm ●
- (High-Precision Option—.00010"/.00010mm) ○
- Inch/Metric Data Selection by G-Code ●
- 160 Meters Part Program Storage ●
- Part Program Storage (320, 640 or 1,280 meters total) ●

Data Input/Output

- MDI (Manual Data Input) Operation ●
- Reader/Punch Interface ●
- (RS-232 Software/Hardware) ●

Programming Functions

- Absolute/Incremental Programming ●
- Additional Tool Offsets (32 pair total) ●
- Additional Custom Macro Variables ●
- Auto Coordinate System Setting ●
- Auto Acceleration/Deceleration ●
- Background Editing ●
- Canned Cycles (Drilling) ●
- Chamfer/Corner Rounding ●
- Constant Surface Speed Programming ●
- Continual Thread Cutting ●
- Coordinate System Setting (G50) ●
- Custom Macro B ●
- Decimal Point Programming ●
- Diameter/Radius Programming ●
- Direct Drawing Dimension Programming ●
- Exact Stop ●

Programming Functions (cont'd)

- Extended Part Program Edit ●
- External Workpiece Number Search ●
- Graphic Toolpath Display ○
- Hardinge Safe Start Format ●
- Helical Interpolation ○
- Input of Offset Value by Programming (G10) ●
- Interpolation (Linear and Circular) ●
- Multiple Repetitive Canned Cycles I (Turning) ○
- Multiple Repetitive Canned Cycles II (Pockets) ○
- Polygon Turning Software¹ ○
- Program Number Search ●
- Reference Point Return ●
- Registered Part Programs (63 total) ●
- Registered Part Programs — (125, 200 or 400 total) ●
- Rigid Tapping ●
- Sequence Number Search ●
- Single Block Operation ●
- Stored Stroke Check 2 & 3 ●
- Thread Cutting Cycle Retract ●
- Thread Synchronous Cutting ●
- Tool Life Management ●
- Tool Nose Radius Compensation ●
- Variable Lead Thread Cutting ●
- Operation ○
- Block Delete ●
- Dry Run ●
- Dwell Time ●
- Emergency Stop ●
- Feed Hold ●
- Feedrate Override (0 to 150%) ●
- Incremental Jog ●
- Jog Feed ●

Operation (cont'd)

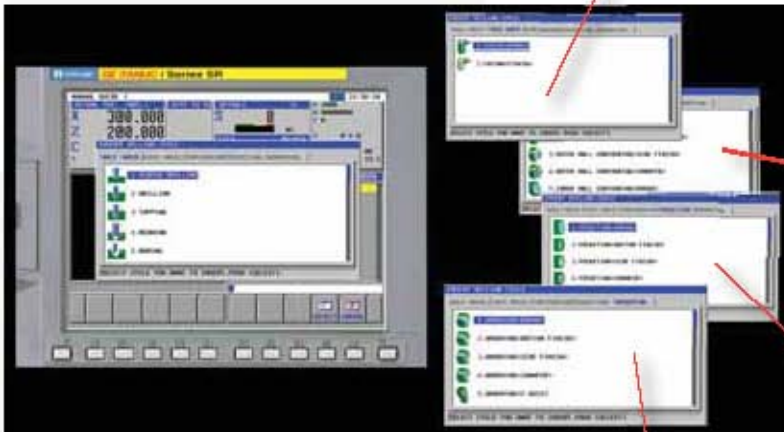
- Machine Lock ○
- Manual Pulse Generator (MPG) ●
- On-Screen Spindle & Axis Load Meters ●
- Option Stop ●
- Rapid Traverse Override (Low-25-50-100%) ●
- Spindle Speed and T-Code Displays ●
- on All Screens ●
- Tool Geometry and Tool Wear Offsets — (32 pairs each) ●
- Miscellaneous ○
- Actual Cutting Speed Display ●
- C-Axis with Polar and Linear Interpolation ○
- Color LCD Display with Full Keyboard — English ●
- French/German, Italian or Spanish ○
- Ethernet Card ●
- Flash Card Capability ●
- Ladder Diagram Display ●
- Mechanical Run Meter ●
- On-Screen "HELP" Functions for Alarms ●
- One-Degree Spindle Orient² ○
- PC Front-End Control ○
- Program Protect ●
- Run Time and Parts Counter ●
- Self-Diagnosis Function ●
- Stored Pitch Error Compensation ●
- Y-Axis with offsets (32 pair) ○
- 3D Coordinate System Conversion—Y-Axis with Angular Tool ○
- Standard
- Optional

¹ - Hardware package suggested
² - Included with Live Tooling Option

User-friendly software to unleash your productivity

Manual Guide i

Manual Guide i is an advanced conversational programming system. A fully animated version of the operator-generated part program can be easily viewed on the large full-color display. Using Manual Guide i ensures that the process is proven prior to actual machining. If desired, the simple push of a button converts the conversational program into a standard G- and M-code program.



SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Choose the machine variation that suits your current and future needs



2-Axis Turning **S** **M** **MY** **MS** **MSY**

SR 150

- A2-6 spindle nose
- 6-Inch jaw chuck
- 20-hp/15-kW spindle drive system
- 211ft-lb/286Nm torque
- 6,000-rpm spindle speed
- Hardinge/GE Fanuc *i* Series SR control



2-Axis Turning **S** **M** **MY** **MS** **MSY**

SR 200

- A2-6 spindle nose
- 8-Inch jaw chuck
- 30-hp/26-kW spindle drive system
- 270ft-lb/365Nm torque
- 4,500-rpm spindle speed
- Hardinge/GE Fanuc *i* Series SR control

S—Sub Spindle
 M—Live Tooling & C-Axis
 MY—Live Tooling, C-Axis & Y-Axis
 MS—Live Tooling, Sub Spindle & C-Axis (both spindles)
 MSY—Live Tooling, Sub Spindle, Y-Axis & C-Axis (both spindles)
 Machine name example: SR 200 MSY

The Hardinge® Group...

Bridgeport® milling machines, **Hardinge** turning centers,
Hauser, Kellenberger®, Tripet and **Tschudin** grinding machines,
and **Workholding** and industrial products

Hardinge produces more than just the SR-Series turning centers shown in this brochure...we build a full range of value-packed and high-precision turning centers; vertical and horizontal machining centers; high-speed and 5-axis milling machines; creep-feed, jig, universal cylindrical and ID/OD grinding machines; and workholding systems and equipment. Hardinge machine tool technology is not only the most comprehensive on the market, it's also creating new benchmarks for quality, productivity and reliability.

Whether you are an OEM or sub-contract precision engineering company—regardless of the sectors you serve (aerospace, automotive, medical, autosport, mold tool and die or general engineering)—the Hardinge product portfolio will interest you.

Our advanced manufacturing technologies in combination with our range of after-sales and support services (maintenance and service contracts; operator training; technical and applications support) have been designed to help you improve your performance and maintain your competitive advantage.

If you would like to know more about our manufacturing solutions, call us at 800.843.8801 or 607.734.2281 and request our Pocket Guide #1325. You can also e-mail us at info@hardinge.com or visit our web site at www.hardinge.com.

Hardinge precision and Super-Precision® CNC turning centers

We can help you turn your business around. From our competitively-priced SV-Series range of machines to our TALENT® and ELITE® Series II range of quick-changeover bar and chucking machines right through to our high-productivity QUEST® GT gang tool and multi-tasking machines, we can provide you with the optimum turning solution.



Milling machines and machining centers

Our comprehensive line of Bridgeport milling machines have been designed to meet any manufacturing challenge you might be facing today or in the future. Our market-leading XR range of vertical machining centers continue to grow in popularity—and we have similar expectations with our new competitively-priced XV and GX VMCs as well. For heavy-duty, high metal removal we offer our HMC range of Horizontal Machining Centers and for increased manufacturing flexibility and improved productivity there's our 5-axis (5AX) model that is well worthy of consideration. If you are making your first step up to CNC machining, you will find that our entry-level GX 480 and GX 480 DT machines provide the ideal solution. For high-speed machining applications, our HSC machining centers are second to none.



Grinding machines

The Hardinge grinding companies include Hauser, Kellenberger, Tripet, Tschudin and, most recently, Bridgeport. Collectively we have all the technology, experience and know-how you need to transform your manufacturing operations. From high-performance cylindrical and jig grinding machines through to multi-functional ID/OD and universal machines—not to mention Bridgeport's state-of-the-art Flexible Grinding Centers (FGC 2). It doesn't get more comprehensive than this.



Workholding

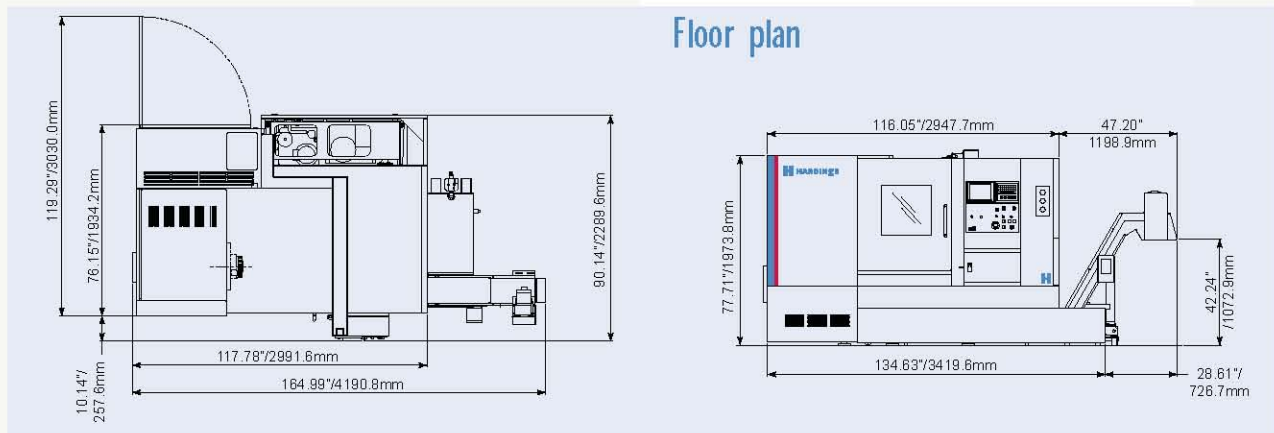
Because we design and manufacture market-leading, technically-excellent machine tools it's no surprise that we know more than a thing or two about workholding solutions. From our extensive portfolio of CNC toolholders, collets and chucks—right through to our 5C Indexing systems—our workholding and fixturing technology will improve your performance when and where it matters most.



SR-Series Heavy-Duty, Universal Chuck and Bar CNC Turning Centers

Specifications that set a new benchmark for competitive machines

	SR 150	SR 200
Programmable Resolution/Tool Offset Capability	.00010"/.0010mm	.00010"/.0010mm
Spindle—Configuration (ANSI)	A2-6	A2-6
Spindle Through-Hole	2.64"/66.0mm	3.15"/80.0mm
Bar Capacity	2"/51mm	2.50"/65mm
Jaw Chuck Size	6"/150mm	8"/200mm
Turning Length (Max.)	20.50"/520.7mm	20.10"/510.5mm
Spindle Centerline Height	41.00"/1041.4mm	41.00"/1041.4mm
Spindle Reach	18.70"/475.0mm	18.70"/475.0mm
AC Digital Belted Drive System ¹		
Base Speed	500-750 rpm ⁵	575 rpm
Power Rating at Base Speed	20hp/15kW	30hp/26kW
Torque Rating at Base Speed	211-141ft-lb/286-191Nm ⁵	270ft-lb/365Nm
Speed Range (1-rpm steps)	60 to 6,000	45 to 4,500
Carriage and Cross Slide		
Swing Diameter Over Way Cover	20.44"/519.2mm	20.44"/519.2mm
Turning Diameter (Max.)		
VDI Turret ³	12.28"/311.9mm	12.28"/311.9mm
Conventional T-Style Turret Option ³	14.05"/356.8mm	14.05"/356.8mm
ESA Turret Option ³	12.65"/321.3mm	12.65"/321.3mm
Travels (Max.)		
X-Axis	7.45"/189.2mm	7.45"/189.2mm
Z-Axis	21.94"/557.3mm	21.54"/547.1mm
Y-Axis Option	+200 to -1.377"/+508 to -34.9mm	+200 to -1.377"/+508 to -34.9mm
Traverse Rates (Max.)		
X-Axis	1,100ipm / 28m/min	1,100ipm / 28m/min
Z-Axis	1,500ipm / 38m/min	1,500ipm / 38m/min
Z-Axis with HydroGlide Option ^{3A}	2,300ipm / 58m/min	2,300ipm / 58m/min
Y-Axis Option	375ipm / 9.5m/min	375ipm / 9.5m/min
Thrusts (Max.)		
Z-Axis	2,250lb/10,000N	2,250lb/10,000N
Z-Axis with HydroGlide Option ^{3A}	1,800lb/8,007N	1,800lb/8,007N
Y-Axis Option	1,175lb/5,227N	1,175lb/5,227N
Inspection Specifications ⁶	<i>Precision Model</i>	<i>Precision Model</i>
Part Surface Finish	12 micro-inch/30 micron	12 micro-inch/30 micron
Overall Axis Repeatability	.000050"/1.27 micron	.000050"/1.27 micron
	<i>High-Precision Option</i>	<i>High-Precision Option</i>
Part Surface Finish	10 micro-inch/25 micron	10 micro-inch/25 micron
Part Roundness	.000050"/1.27 micron	.000050"/1.27 micron
Part Continuous Machining Accuracy (Total Variation on Diameter)	.0002"/5 micron	.0002"/5 micron
Overall Axis Repeatability	.000030"/.76 micron	.000030"/.76 micron



SR 150

SR 200

Bidirectional Turret Top Plate		
VDI 30 Tool Configuration	12 Stations	12 Stations
Square Shank Tool Size (Max.)	1" / 25mm	1" / 25mm
Round Shank Tool Size (Max.)	1½" / 40mm	1½" / 40mm
Indexing Time (Station-to-Station)	0.1 Second	0.1 Second
VDI 30 16-Station Tool Configuration Option ^{2,4}	16 Stations	16 Stations
VDI 30 Live Tooling Option—All Stations ²		
Tool Shank Diameter w/ER25 Collets	.062 to .625"/2 to 16mm	.062 to .625"/2 to 16mm
Power Rating at Tool Tip ⁷	5hp/3.7kW	5hp/3.7kW
Torque Rating at Tool Tip ⁸	17.4ft-lb/23.6Nm	17.4ft-lb/23.6Nm
Speed Range (1-rpm Steps)	80 to 8,000	80 to 8,000
Conventional Hardinge T-Style ²		
Turret Top Plate Option (Inch or Metric)	10 or 12 Stations	10 or 12 Stations
Square Shank Tool Size (Max.)	1" / 25mm	1" / 25mm
Round Shank Tool Size (Max.)	1½" / 40mm	1½" / 40mm
Indexing Time (Station-to-Station)	.35 Second	.35 Second
ESA Tool Configuration Option ²		
Square Shank Tool Size (Max.)	1" / 25mm	1" / 25mm
Round Shank Tool Size (Max.)	1¼" / 32mm	1¼" / 32mm
Indexing Time (Station-to-Station)	.35 Second	.35 Second
ESA Live Tooling Option—All Stations ²		
Tool Shank Diameter w/ER25 Collets	.062 to .625"/2 to 16mm	.062 to .625"/2 to 16mm
Power Rating ¹	5hp/3.7kW	5hp/3.7kW
Torque Rating ¹	17.4ft-lb/23.6Nm	17.4ft-lb/23.6Nm
Speed Range (1-rpm Steps)	80 to 8,000	80 to 8,000
Sub Spindle Option ^{1,2}		
Spindle Configuration (ANSI)	A2-5, 16C	A2-5, 16C
Round 16C Collet (Through Capacity)	1.625"/42mm	1.625"/42mm
Jaw Chuck Size	6"/150mm	6"/150mm
Step Chuck (Gripping Capacity)	6"/152.4mm	6"/152.4mm
Power Rating @ 1,500-rpm Base Speed	10hp/7.5kW	10hp/7.5kW
Torque Rating	35ft-lb/47.7Nm	35ft-lb/47.7Nm
Speed Range (1-rpm steps)	60 to 6,000	60 to 6,000
Travel (Max.) ⁹	18.70"/475.0mm	17.90"/454.7mm
Traverse Rate (Max.)	1,500ipm / 38m/min	1,500ipm / 38m/min
Hydraulic Tailstock Option ²		
	MT 4	MT 4
Part Length (Max.)	20.00"/508.0mm	19.20"/487.7mm
Travel (Max.)	21.50"/546.1mm	21.50"/546.1mm
Traverse Rate (Max.)	300ipm / 7.6m/min	300ipm / 7.6m/min
Hydraulic Applied Force (Min. to Max.)	630 to 1,570lb/280 to 700daN	630 to 1,570lb/280 to 700daN
Miscellaneous		
Power Supply Requirement ¹⁰	230v/3 Phase/112FLA	230v/3 Phase/135FLA
Coolant Tank Capacity	50gal/189liter	50gal/189liter
Coolant Pressure	187psi/12.9bar	187psi/12.9bar
Coolant Flow Rate	6.75gpm / 25.5l/min	6.75gpm / 25.5l/min
High-Pressure Thru-Tool Coolant Option	1,000psi/98.95bar	1,000psi/98.95bar
Machine Dimensions		
Length	117.78"/2991.6mm	117.78"/2991.6mm
Length with Chip Conveyor Option	164.99"/4190.8mm	164.99"/4190.8mm
Depth	90.14"/2289.6mm	90.14"/2289.6mm
Height	77.71"/1973.8mm	77.71"/1973.8mm
Weight (Approx.)	15,086lb/6,843kg	15,486lb/7,024kg
Shipping Weight (Approx.)	15,686lb/7,115kg	16,086lb/7,296kg

1—30-minute intermittent ratings used for power and torque specifications.

2—Available as original equipment only. 3—Actual dimension based on tool overhang.

3A—Available only on machines equipped with the High-Precision option.

4—Tool clearance affected by part diameter.

5—Low/high range listed.

6—Results were derived from actual tests conducted at Hardinge. Due to varying cutting conditions, actual results may be greater or less than those listed.

7—15-minute rating. 8—30% duty cycle (3-minute rating).

9—Maximum distance between spindle and jaw chuck faces.

10—FLA shown for base machine.

NOTE: A supplementary power transformer is required for all voltages other than 230v, 50/60Hz.



Over the past 10 years Hardinge steadily diversified both its product offerings and operations. Today, the company has grown into a globally diversified player with manufacturing operations in the U.S., Switzerland, China and Taiwan. In addition to designing and building turning centers and collets, Hardinge is a world leader in grinding solutions with the addition of the Kellenberger, Hauser, Tripet and Tschudin brands to the Hardinge family. The company also manufactures Bridgeport machining centers and other industrial products for a wide range of material cutting, turnkey automation and workholding needs.

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