

Turning

## GS 250 MY, MS, MSY Turning Centers

Quotation to: ABMNameAlpha  
Quotation Number: SOHDocumentOrderInvoice  
Contact: Contact Name  
Address: ShipToAddressLine1  
ShipToAddressLine2  
ShipToAddressLine3  
ShipToAddressLine4  
ShipToCity1, ShipToState,  
ShipToCountry

Date: Month/Day/Year  
Prices Valid for 30 Days

Your Hardinge Representative  
*Sales Person Name*  
*Phone*  
*Email*  
*Address 1*  
*Address 2*  
*City, State, Zip*

TURNING MILLING GRINDING WORKHOLDING  
[www.hardinge.com](http://www.hardinge.com)



# Machine Summary and Quotation

Thank you for taking the time to discuss your machine requirements. After reviewing your needs, we are pleased to present the Hardinge GS 250 MSY Turning Center as a solution to your machining requirements.

The all new Hardinge GS 250 MSY turning center sets the standard in multi-tasking turn-mill capability with our performance series turning center's that will take your machining capabilities to new heights. Ideal for basic two axis machining or complex multi-tasking operations in a single setup, GS MSY turning centers are capable of small lot or high volume production environments.



These machines are packed with our most popular high productivity machine and control features allowing fast machine set up times and highly productive "Done in One" machining operations to maximize your throughput and profitability.

## **Standard Specifications**

Spindle Nose Configuration	A2-8
Bar Capacity (in/mm)	3.070 / 78
Chuck Size (in/mm)	10/250
Main Spindle Motor (kW/hp)	18.5/25
Max Main Spindle Speed (rpm)	3,500
Sub Spindle Motor (kW/hp)	15/20
Max Sub Spindle Speed (rpm)	6,000
Number of Turret Stations - Standard	12
Turret Tooling Type - Standard	VDI 40 (BMT 65 Optional)
Rapid Feed Rate in X, Y, Z & E (ipm/mpm)	1,181/30
Inspection Specifications: ISO 230-2	
CNC Control – Fanuc 18i-TB with Manual Guide i	

## **Included Features**

- 10" 3 jaw chuck
- Custom Macro B
- Environmentally friendly grease lubrication
- User friendly operators panel
- Two Bright florescent work lights
- Chip conveyor interface
- Maintenance Kit with Grease Gun
- Electronic Torque Limiters
- Ethernet Ready
- Headwall Coolant
- Spindle Orient Main
- Air Blast (main & sub spindles)
- Barfeed interface
- Manual Guide I (Shop Floor Programming)
- Rigid tapping
- Pendant mounted control – 10.4 color display
- PCMCIA flash card interface
- Run time/parts counter
- Air-hose with air-gun
- Spindle Oil Chiller (Main & Sub)
- Main Spindle Head Wall Air Blast
- Chuck Open/Close Foot Switch Main
- Live Tooling & C-Axis
- Single Position Collet Closer Foot Switch

## **Included Features with Sub Spindle**

- 6" 3-Jaw Chuck
- Sub Spindle Head Wall Air Blast
- C-Axis Sub
- Sub Spindle Headwall Coolant
- Spindle Orient Sub
- Chuck Open/Close Foot Switch Sub

Please refer to the attached lists for available options and full machine specifications.



# GS 250 MY, MS, MSY Turning Center Options

## **Machine Configuration**

GS 250 MY – Live Tooling, C-Axis, Y-Axis, Tailstock  
 GS 250 MS – Live Tooling, C-Axis, Sub, C-Axis Sub  
 GS 250 MSY – Live Tooling, C-Axis, Sub, C-Axis Sub, Y-Axis

**GS 250 MSY**      **LIST PRICE**

## **Top Plate**

12-Station VDI-40 Top Plate 1" square – 1 ½" round shank tooling  
 Live Tooling (DUPLOMATIC), SMBR-20 BMT-65 (DIN5480), 12T

Standard      Included  
 Option

## **Machine Options**

Auto Door (Factory install only)  
 Arm Type Parts Catcher w/ Conveyor (Part length 6.3") On Main Spindle  
 Renishaw Tool Probe (Factory install)  
 Renishaw Tool Probe (Field install)  
 Tri-Color Light Tower  
 Part Present Detector for Sub Spindle, Optical Type  
 Spring Type Part Ejector for Sub Spindle

Option  
 Option  
 Option  
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 Option

## **Coolant and Chip Management**

Chip Conveyor – Standard Hinge Type  
 Chip Conveyor – Scraper Type (small fine chips)

Option  
 Option

## **Spindle Liners**

Spindle Liner Kit  
 Spindle Liner Bushing (3 required for each bar stock size)

Option  
 Option

## **Control Options**

Automatic Machine Power Down  
 Registered Part Program – 400 total programs  
 Additional Offset 32 for a total of 64 total offsets  
 Program Storage – 1280 Meters (Total) includes SRAM Module  
 Floating Reference Return  
 French/German Language Display  
 Italian Language Display  
 Chinese Language Display  
 3D Coordinate System Conversion (Y-Axis with Angular Tool)

Option  
 Option  
 Option  
 Option  
 Option  
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 Option  
 Option

## **Transformers**

208/230 Volt Transformer (50KVA) –  
     GS Machines are wired 220 Volt 3 Phase  
 230/460 Volt Transformer (50KVA) –  
     GS Machines are wired 220 Volt 3 Phase  
 200/230/400/460 Volt Transformer (75KVA) -

Option  
 Option  
 Option

Prices list in USD  
 Factory installed pricing only

# GS 250 MY, MS, MSY Specifications

## **Swing Diameter**

Maximum Swing Over Way Covers 24.41" (620mm)

## **Work Capacities**

Chuck Size 10.0" (245mm)  
Maximum Bar Capacity 3.07" (78mm)  
Maximum Part Weight w/Chuck 117Kgs (260lbs)  
Maximum Machining Diameter 15.0" (380mm)  
Maximum Turning Length 21.3" (540mm)

## **Part Accuracy**

Roundness 0.0007mm (.00003")  
Surface Finish Ra 0.0002mm (8 micro)

## **Spindle**

Spindle Motor Dual Wound Wrap  
Spindle Nose A2-8 (10" Chuck)  
Maximum Speed 3500-rpm  
C-Axis Resolution 0.001°  
Base Speed – High Range 370-rpm  
Base Speed – Low Range 300-rpm  
Power @ Spindle – Low Range (10 min / 30min) 18.5kW (25hp)  
Torque @ Base Speed – Low Range (10 min / 30 min) 539Nm (397.5 ft-lb)

## **Travels and Feedrates**

Maximum X-Axis Travel 8.58" (218mm)  
Maximum Y-Axis Travel ± 50.8 (± 2.0")  
Maximum E & Z-Axis 23.62" (600)  
Heavy duty roller linear guides – greased for life All Axis # 45 Size  
Rapid Rates X,Y, Z and E Axis 30m/min (1181 ipm)  
Ball screw Diameter X,Z and E Axis 40mm (1.57")  
Ball screw Diameter Y-Axis 36mm (1.417")  
Axis motor power X, Y, Z and E 3.0 kW (4 hp)  
Thrust Max X, Y, Z Axis 21991N (4,944 lbs)

## **Turret Top Plates**

VDI 40 bi-directional 12 station  
Square Shank 1.0" (25mm)  
Round Shank Tooling 1.5" (40mm)  
Rotation / Index Time .06 sec / 2.5 sec  
**Live Tooling Option**  
Power Rating (30 Min Rating) 7.4hp (5.5 kW)  
Torque Rating 25.8 ft-lb (35 Nm)  
Max Speed 4,000-rpm

## **Tailstock (Servo Drive)** (MY Configuration Only)

Servo Motor Fanuc A12  
Travel 600mm (23.6")  
Thrust (Max) 7500N (1680 lbs)  
Morse Taper MT #5  
Max Feed Rate (Rapid) 30m/min (1181ipm)  
Max Part Length with Chuck 675mm (26.5")  
Min Part Length with Chuck 75mm (2.95")

# GS 250 MY,MS, MSY Specifications Cont.

## **Sub Spindle (Standard 3 – Jaw Chuck)**

Spindle Motor Type	Wraparound
Spindle Nose – (Chuck Size)	A2-5 (6" Chuck)
Spindle rpm Max	6000rpm
C-Axis Resolution	0.001°
Chuck Size 3 Jaw (Dia)	169mm (6.65")
Draw Tube Bore	45mm (1.77")
Part Weight w/Chuck	34Kg (75 lbs)
Travel Max.(distance Between Chuck Face)	600mm (23.62")
Rapid Traverse	30m/min (1181 ipm)
Spindle Motor base Speed	1400
Power @ Spindle (30min)	15 kW (20 hp)
Torque @ spindle (30min)	157 Nm (115.8 ft-lb)

## **Coolant Facilities**

Coolant Capacity	290 l (76 gal)
Through Turret Pressure	20 bar (280 psi)
Head-wall Flush Pressure	2.8 bar (40 psi)
Head-wall Flush Flow – 26 lpm (6.8 gpm)	26 lpm (6.8 gpm)

## **Accuracy Specifications**

Position Accuracy	.0002" / .005 mm
Repeatability Accuracy	.0001" / .0025mm

## **Power Requirements (Standard Configuration)**

Volts/Full Load Amps	220 volt/146 FLA
Phase/Hertz	3-phase/50-60 Hz

## **Miscellaneous**

Spindle Centerline Height	41.5" (1100mm)
Spindle Reach	16.46" (418mm)
Length w/o chip conveyor	123.54" (3138mm)
Length with chip conveyor	154.61" (3927mm)
Machine Depth	77.56" (2102mm)
Machine Height	71.34" (2320mm)
Approx. Machine Weight	14,300 lbs (6500Kgs)
Approx. Shipping Weight	15,000 lbs (6804Kgs)

# Fanuc 18i TB Control Specifications

## **General**

- Pendant-mounted Full Control
- 10.4" LCD Display
- Ethernet and RS-232C Communication Ports
- Program Resolution .0001" (.001mm)
- Tool Offset Capability .0001" (.001mm)
- Absolute Encoders
- Inch/Metric Selection by G-Code
- 640 Meters Part Program Storage
  - Part Program Storage (1280)

## **Programming Functions**

- Absolute/Incremental Programming
- Additional Custom Macro Variables
  - Additional Tool Offsets (64 Total)
- Alarm Display
- Auto Acceleration/Deceleration
- Auto Coordinate System Setting
- Background Editing
- Canned Cycles (Drilling)
- Chamfer/Corner Rounding
- Constant Surface Speed Programming
- Continuous Thread Cutting
- Coordinate System Setting (G50)
- Custom Macro B
- Decimal Point Programming
- Diameter/Radius Programming
- Direct Drawing Dimension Programming
- Display Position, Program, Alarm, History, Operator Message, Speed, T-Code
- Dynamic Graphics
- Exact Stop
- Extended Part Program Edit (copy/replace)
- External Workpiece Number Search
  - Floating Reference Return
- Graphic Tool Path Display
- Hardinge Safe Start Format
- Helical Interpolation
- Help Screen
- Input of Offset Values by (G10)

- Standard
- Optional

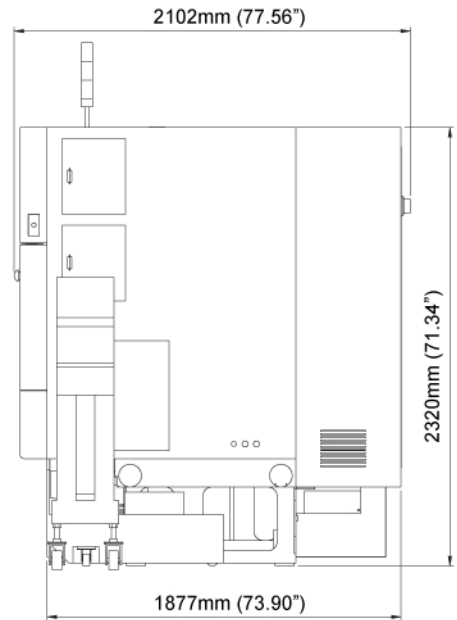
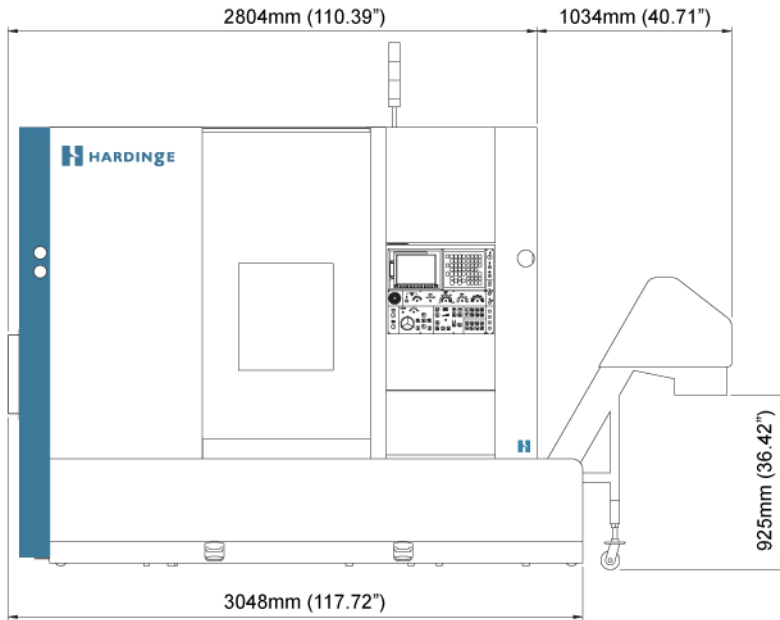
## **Programming Functions (continued)**

- Interpolation (Linear/Circular)
- MPG Manual Pulse Generator
- Manual Guide i with full color display
- Multiple Repetitive Cycles I (Turning)
- Multiple Repetitive Cycles II (Pocketing)
- Program Number Search
- Reference Point Return
- Registered Part Program Storage (200)
  - Registered Part Program Storage (400)
- Rigid Tapping
- Spindle Synchronization (M62-M63)
- Sequence Number Search
- Single Block Operation
- Stored Stroke Check 2 & 3
- Thread Cutting Retract
- Thread, Synchronous Cutting
- Tool Life Management
- Tool Nose Radius Compensation
- Tool Offsets Geom/Wear (32 pair)
- Variable Lead Thread Cutting

## **Miscellaneous**

- Actual Cutting Speed and T-Code Display
- C-Axis with Polar and Cylindrical Interpolation
- Color LCD Display
- English
  - Chinese, French/German, Italian, Spanish Language
- PCMCIA Flash Card Capability (up to 1-GB)
  - Floating Reference Point Return
  - Ladder Diagram Display
- Mechanical Run Meter
- On-Screen Help Functions
- One-Degree Spindle Orient
- Program Protect
- Run Time and Parts Counter
- Self-Diagnostic Function
- Y-Axis offset (32 pair)
  - 3D Coordinate System Conversion (Y-axis with angular Tool)

# GS 250 MY, MS, MSY Floor Plan



# Investment Summary for ABMNameAlpha

Quote Number:  
All Prices in: SOHCurrencyCodeFrom

Qty	UOM	Description	Unit Price	Extended
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Total Investment: \$XXXX