



EXPAND™
MACHINERY

GEN MILL

x

2021 MACHINE CATALOG



510mm High Speed Mill-Drill-Tap Center

- + 12,000 RPM Inline Direct-Drive Beltless Spindle
- + 21-Tool Drum Turret
- + Tool Change Time 1.6-sec. tool-to-tool, Servo motor driven
- + 2,362 Inch per Minute Rapid Rates
- + BT#30 BBT Dual Contact Big-Plus Spindle
- + 6,000 RPM Synchronous Rigid Tapping
- + 7.5 HP Spindle Motor



Axis Travel

| | |
|--------------------------------------|---------------------------|
| X-Travel | 20.08" 510mm |
| Y-Travel | 16.93" 430mm |
| Z-Travel | 12.99" 330mm |
| Spindle Nose to Rotary Table Surface | 5.1" – 18.1", 130 – 460mm |
| Spindle Center to Column | 18.89" 480mm |

Work Table

| | |
|---|---|
| Table Surface Dimension (X, Y) | 22.04" x 15.75", 560 x 400mm |
| T-Slot Dimension / Spacing | 3-14mm T-slots / 125mm center distance spacing |
| Table Height | 35" above floor, 890mm |
| Maximum Table Weight for Rated Accuracy | 550 pounds, 250kg @ 60m/min (770 lbs. @ 48m/min.) |

Spindle

| | |
|---|--|
| Spindle Motor – Mitsubishi DJ-D5.5/120-01 | 7.5-HP, 3.7/5.5kw 25% Duty-Cycle |
| Spindle Motor Coupling | Inline Direct-Drive, Beltless Spindle Drive |
| Spindle Speed | 12,000 rpm, 15,000 RPM optional |
| Synchronous Tapping Speed Limit | 6,000 rpm |
| Tapping Performance in Production | M20x2.5 in aluminum, M14x2.0 in steel |
| Drilling Performance in Production | 38mm in aluminum, 25mm in steel |
| Spindle Torque | 26 ft-lb @ 1,500 rpm, 25% Duty-Cycle |
| Tool Type | BT #30, 4-bearing spindle – 2-top, 2-bottom |
| Spindle Bearing - Inner Diameter | 40mm, P4 class-7, Steel Ball Bearings |
| Spindle Material / Hardness | SCM415 / HRC 58-62 |
| Spindle Runout | ≤ 0.000040" T.I.R. |
| Retention System / Holding Capacity | MAS-P30T-1 Bellville Spring Stack / 1650-1760 lbs. |

Axis Feeds

| | |
|-----------------------------------|---|
| Rapid Traverse – X/Y/Z | 2,362 ipm 60/60/60 /minute |
| Rated Cutting Feedrate – X/Y/Z | 0.04 - 1181 ipm 30/30/30m/minute |
| Mechanical Way System – X/Y/Z | Roller-Bearing Ways, Roller-Ways -30/30/35mm width |
| Axis Drive Motor Power – X, Y/Z | 2.0-HP / 3.0-HP 1.5kw / 2.2kw with brake |
| Axis Thrust Force – X, Y/Z | 3335 lbs. / 3692 lbs. 14840 N / 16430 N |
| Ballscrews – X, Y, Z | 32mm Ballscrews, 16mm Pitch |
| Positioning Accuracy – X/Y/Z | ±0.00015" ±0.004mm |
| Positioning Repeatability – X/Y/Z | ±0.00008" ±0.002mm |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |

Tool Changer

| | |
|--|---|
| Tool Capacity | 21-Tools, Drum Turret |
| Tool Shank | BT#30, MAS P30T-1 Pull-Stud |
| Tool Change Time | 1.6-sec. tool-to-tool, Servo motor driven |
| Maximum Tool Diameter / with adjacent tool | 2.36" / 3.15" 60mm / 80mm with no adjacent tool |
| Maximum Tool Length / Weight | 7.87" / 6.6 lbs. 200mm / 3 kg |
| Tool Selection / Tool Access | Random access Bi-directional shortest path |

Specifications

| | |
|--|---|
| Air Service Requirements | 85 psi @ 5-scfm 6 Kg/cm ² |
| Connected Load Electrical Requirements | 40 Amps / 220vac ±5%, 60-Hz |
| Coolant Tank Capacity | 32-gallons / 120 liters |
| Coolant Pump (Cutting Tools) - HP / Pressure | 1.0-HP / 45 PSI, .75kw Grundfos MTH4-30/3A |
| Coolant Pump (Chip Flush Pump) | 1.0-HP .75kw |
| Floor space requirements (W x D x H) | 50" x 87" x 95" 125x221x241cm (+ chip conveyor) |
| Machine Weight | 6,110 pounds, 2,770 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



700mm High Speed Mill-Drill-Tap Center

- + 12,000 RPM Inline Direct-Drive Beltless Spindle
- + 21-Tool Drum Turret
- + Tool Change Time 1.6-sec. tool-to-tool, Servo motor driven
- + 2,362 Inch per Minute Rapid Rates
- + BT#30 BBT Dual Contact Big-Plus Spindle
- + 6,000 RPM Synchronous Rigid Tapping
- + 7.5 HP Spindle Motor



Axis Travel

| | |
|--------------------------------------|---------------------------|
| X-Travel | 27.56" 700mm |
| Y-Travel | 16.93" 430mm |
| Z-Travel | 12.99" 330mm |
| Spindle Nose to Rotary Table Surface | 5.1" – 18.1", 130 – 460mm |
| Spindle Center to Column | 18.89" 480mm |

Work Table

| | |
|--------------------------------|---|
| Table Surface Dimension (X, Y) | 33.4" x 15.75", 850 x 400mm |
| T-Slot Dimension | 3-14mm T-slots / 125mm center distance spacing |
| Table Height | 35" above floor, 890mm |
| Maximum Table Weight | 550 pounds, 250kg @ 60m/min (770 lbs. @ 48m/min.) |

Spindle

| | |
|---|--|
| Spindle Motor – Mitsubishi DJ-D5.5/120-01 | 7.5-HP, 3.7/5.5kw 25% Duty-Cycle |
| Spindle Motor Coupling | Inline Direct-Drive, Beltless Spindle Drive |
| Spindle Speed | 12,000 rpm, 15,000 RPM optional |
| Synchronous Tapping Speed | 6,000 rpm |
| Tapping Performance in Production | M20x2.5 in aluminum, M14x2.0 in steel |
| Drilling Performance in Production | 38mm in aluminum, 25mm in steel |
| Spindle Torque | 26 ft-lb @ 1,500 rpm |
| Tool Type | BT #30, 4-bearing spindle – 2-top, 2-bottom |
| Spindle Bearing - Inner Diameter | 40mm, P4 class-7, Steel Ball Bearings |
| Spindle Material / Hardness | SCM415 / HRC 58-62 |
| Spindle Runout | ≤ 0.000040" T.I.R. |
| Retention System / Holding Capacity | MAS-P30T-1 Bellville Spring Stack / 1650-1760 lbs. |

Axis Feeds

| | |
|-----------------------------------|---|
| Rapid Traverse – X/Y/Z | 2,362 ipm 60/60/60m / minute |
| Rated Cutting Feedrate – X/Y/Z | 0.04 - 1181 ipm 30/30/30m/min. |
| Mechanical Way System – X/Y/Z | Roller Ways, Cross Roller 30/30/35mm width |
| Axis Drive Motor Power – X, Y/Z | 2.0-HP / 3.0-HP 1.5kw / 2.2kw with brake |
| Axis Thrust Force – X, Y/Z | 3335 lbs. / 3692 lbs. 14840 N / 16430 N |
| Ballscrews – X, Y, Z | 32mm Ballscrews, 16mm Pitch |
| Positioning Accuracy – X/Y/Z | ±0.00015" ±0.004mm |
| Positioning Repeatability – X/Y/Z | ±0.00008" ±0.002mm |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |

Tool Changer

| | |
|--|---|
| Tool Capacity | 21-Tools, Drum Turret |
| Tool Shank | BT#30, MAS P30T-1 Pull-Stud |
| Tool Change Time | 1.6-sec. tool-to-tool, Servo motor driven |
| Maximum Tool Diameter / with adjacent tool | 2.36" / 3.15" 60mm / 80mm with no adjacent tool |
| Maximum Tool Length / Weight | 7.87" / 6.6 lbs. 200mm / 3 kg |
| Tool Selection / Tool Access | Random access Bi-directional shortest path |

Specifications

| | |
|--|---|
| Air Service Requirements | 85 psi @ 5-scfm 6 Kg/cm ² |
| Connected Load Electrical Requirements | 40 Amps / 220vac ±5%, 60-Hz |
| Coolant Tank Capacity | 40-gallons / 150 liters |
| Coolant Pump (Cutting Tools) - HP / Pressure | 1.0-HP / 45 PSI, .75kw Grundfos MTH4-30/3A |
| Coolant Pump (Chip Flush Pump) | 1.0-HP .75kw |
| Floor space requirements (W x D x H) | 73" x 87" x 95" 185x221x241cm (+ chip conveyor) |
| Machine Weight | 6,770 pounds, 3,070 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



5-Axis High Speed VMC with built-in 12" Trunnion

- + Glass Scale Feedback on All 5-Axis
- + Roller Bearing Ways (twice as rigid as ball ways)
- + 40-Tool Double Arm ATC
- + 1,417 Inch per Minute Rapid Rates
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + Spindle Chiller for Consistent Thermal Stability
- + 300-PSI Through-the-Tool Coolant System
- + Available as 4 + 1 or 5 Axis simultaneous



Axis Travel

| | |
|-------------------------------------|---------------------------------|
| X-Travel | 34.64" 880mm |
| Y-Travel | 32.62" 600mm |
| Z-Travel | 25.59" 650mm |
| Spindle Nose to Table Surface | 4.72" – 18.89", 120 – 480mm |
| Spindle Center to Z-axis way covers | 22.44" 570mm (throat dimension) |

Rotary Table

| | |
|-------------------------|--|
| Platter Diameter | Ø 12.6" Ø 320mm |
| Center Bore Diameter | Ø 50 H7 |
| T-slot width / Number | 12 H7 / 4, Hardened & ground table & T-slots |
| Guide block width | 18mm |
| Maximum Work-Table Load | 220 lbs 100kgs |
| Maximum Part Swing | Ø16.3" Ø 414mm |

Spindle

| | |
|--|---|
| Spindle Motor - S1/S2/S3 =11/15/18.5kw | 25-Horsepower Peak, 20-HP 30-minute duty-rating |
| Spindle Speed – Mitsubishi Inline Direct-Drive | 12,000rpm (15,000rpm optional) |
| Spindle Torque | 90 ft-lb @ 1,500 rpm |
| Tool Type | CAT #40 Taper BT #40 optional |
| Retention Knob (Pull Stud) | C40-4502H coolant C40-4502S solid |
| Spindle Runout | ≤0.000040 T.I.R. |
| Spindle Bearings - Front | 110mm NSK 70BNR, 2 - P4 class-7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR, 2 - P4 class-7 bearings |
| Retention System/Holding Capability | Bellville Spring Stack, 1650-1760 lbs |
| Retention Knob Specification | #40 Japanese standard, JMTBA double 45° head angle Ø.590" |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z Axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z Axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse - X and Y | 1,417 ipm, 36m / minute |
| Rapid Traverse - Z | 1,260 ipm, 32m / minute |
| Cutting Feedrate | 0.02 - 393 ipm, 10m / minute |
| Axis Drive Motor Power - X, Y, Z | 5-HP, 3.5kw |
| Ballscrews - X, Y, Z | 40mm ballscrews with 12mm pitch |

Tool Changer

| | |
|--|--|
| Tool Capacity (40+1) | 40 Tool Twin-Arm, Chain-Drive Storage Rack |
| Tool Shank | CAT#40 Taper BT#40 optional |
| Tool Change Time | 1.7-sec. tool-to-tool |
| Maximum Tool Diameter / with adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length / Weight | 11.81" / 15 lbs. 300mm 7kg |
| Tool Selection / Tool Access | Random Access / Bi-Directional |

Specifications

| | |
|--|---|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity / Pressure | 97-gallons / 300 psi, 256 liters / 20-bar |
| Connected Load Electrical Requirements | 50 Amps / 220vac ±5%, 60-Hz |
| Floor space requirements (W x D x H) | 115" x 82" x 116" (add 48" on left side for conveyor) |
| Shipping dimensions (W x D x H) | 169" x 92" x 96" (306x231x256cm) |
| Machine Weight | 15,708 lbs 7,120 kgs |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



24.01" X 15.75" 3 Axis High Speed Vertical Machining Center

- + 24 Tool High Speed Double Arm ATC
- + 1,417 Inch per Minute Rapid Rates
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + 300-PSI Through-the-Tool Coolant System
- + Spindle Chiller for Consistent Thermal Stability
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring



12,000RMP Direct Drive Spindle

Axis Travel

| | |
|-------------------------------------|---------------------------------|
| X-Travel | 24.01" 610mm |
| Y-Travel | 15.75" 400mm |
| Z-Travel | 17.72" 450mm |
| Spindle Nose to Table Surface | 5.11" – 22.83" 130 – 580mm |
| Spindle Center to Z-axis way covers | 15.35" 390mm (throat dimension) |

Table

| | |
|--------------------------------|-------------------------------|
| Table Size (LxW) | 25.59" x 15.75" 650mm X 400mm |
| T-slot width (3 T-slots total) | 18 mm on 100mm centers |
| Max. Table Load | 882 lbs. 400 kgs load |

Spindle

| | |
|--|--|
| Spindle Motor - S1/S2/S3=5.5/7.5/11kW | 15-HP S3 Power, 10-HP 30-min duty rating |
| Spindle Speed – Mitsubishi Inline Direct-Drive | 12,000rpm (15,000rpm optional) |
| Tool Type | CAT #40 Taper BT #40 optional |
| Spindle Taper Material / Hardness | SCM415 / HRC 58-62 |
| Retention System / Holding Capability | Bellville Spring Stack 1650-1760 lbs |
| Spindle Runout | ≤ 0.000040" T.I.R |
| Spindle Bearings - Front | 95mm NSK 70BNR P4 class-7 bearings x2 |
| Spindle Bearings - Rear | 95mm NSK 70BNR P4 class-7 bearings x2 |
| Retention Knob (pull stud) | C40-4502H (coolant), Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse – X, Y / Z | 1,417 / 1260 ipm 36m / 32m minute |
| Cutting Feedrate | 0.02 - 393 ipm 10m / minute |
| Axis Drive Motor Power – X, Y | 2.7-HP (2.0kw) |
| Axis Drive Motor Power - Z | 3.35-HP (2.5kw) |
| Ballscrews – X, Y, Z | 32mm ballscrews 12mm pitch |
| Linear Ways – X / Y / Z | 30 / 35 / 35 mm Premium Cross-Roller |

Tool Changer

| | |
|---|--|
| Tool Capacity (24+1) | 24-Tool Twin-Arm Hi-Speed Tool Changer |
| Tool Shank | CAT#40 Taper BT#40 optional |
| Tool Change Time | 1.7-sec. tool-to-tool |
| Maximum Tool Diameter / w/adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length (from gage line) | 11.81" 300mm |
| Maximum Tool Weight | 15 lbs. 7kg |
| Tool Selection / Tool Access | Random access Bi-directional shortest path |

Specifications

| | |
|--|--|
| Air Service Requirements | 85 psi @ 14-scfm |
| Connected Load Electrical Requirements | 50 Amp Service / 220vac ±5%, 60-Hz |
| Coolant Capacity | 68-gallons, 256 liters |
| Floor space requirements (W x D x H) | 87" x 73" x 113", 218x186x288cm (add 44" for conveyor) |
| Shipping dimensions (W x D x H) | 97" x 91" x 101", 246x229x256cm |
| Machine Weight | 9.923 pounds, 4,500 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



27.95" X 17.71" 3 Axis High Speed Vertical Machining Center

- + 24 Tool High Speed Double Arm ATC
- + 1,417 Inch per Minute Rapid Rates
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + Spindle Chiller for Consistent Thermal Stability
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring



Axis Travel

| | |
|-------------------------------------|---------------------------------|
| X-Travel | 27.95" 710mm |
| Y-Travel | 17.716" 450mm |
| Z-Travel | 18.11" 460mm |
| Spindle Nose to Table Surface | 5.11" -23.62" 150 – 600mm |
| Spindle Center to Z-axis way covers | 17.71" 450mm (throat dimension) |

Table

| | |
|--------------------------------|--|
| Table Size (LxW) | 29.92" x 16.53" 760mm X 420mm |
| T-slot width (3 T-slots total) | 18 mm on 100mm centers |
| Max. Table Load | 2,205 lbs. 1000 kgs load for full accuracy |

Spindle

| | |
|--|--|
| Spindle Motor - S1/S2/S3=7.5/11/15kw | 20-HP S3 power, (15-HP 30-min. duty rated) |
| Spindle Speed – Mitsubishi Inline Direct-Drive | 12,000rpm (15,000rpm optional) |
| Spindle Torque | 50 ft-lb @ 1,500 rpm |
| Tool Type | CAT #40 Taper BT #40 optional |
| Spindle Taper Material / Hardness | SCM415 / HRC 58-62 |
| Retention System / Holding Capability | Bellville Spring Stack 1650-1760 lbs |
| Spindle Runout | ≤ 0.000040" T.I.R |
| Spindle Bearings - Front | 95mm NSK 70BNR P4 class-7 bearings |
| Spindle Bearings - Rear | 95mm NSK 70BNR P4 class-7 bearings |
| Retention Knob (pull stud) | C40-4502H (coolant), Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse – X, Y / Z | 1,417 / 1260 ipm 36m / minute |
| Cutting Feedrate | 0.02 - 393 ipm 10m / minute |
| Axis Drive Motor Power – X, Y | 2.7-HP, 2.0kw |
| Axis Drive Motor Power - Z | 4.0-HP, 3.0kw |
| Ballscrews – X, Y, Z | 32mm ballscrews, 12mm pitch |

Tool Changer

| | |
|---|--|
| Tool Capacity (24+1) | 24-Tool Twin-Arm Hi-Speed Tool Changer |
| Tool Shank | CAT#40 Taper BT#40 optional |
| Tool Change Time | 1.7-sec. tool-to-tool |
| Maximum Tool Diameter / w/adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length (from gage line) | 11.81" 300mm |
| Maximum Tool Weight | 15 lbs. 7kg |
| Tool Selection / Tool Access | Random access Bi-directional shortest path |

Specifications

| | |
|--|--|
| Air Service Requirements | 85 psi @ 14-scfm |
| Connected Load Electrical Requirements | 50 Amp Service / 220vac ±5%, 60-Hz |
| Coolant Capacity / Pressure | 68-gallons / 300 psi 256 liters / 20-bar |
| Floor space requirements (W x D x H) | 86" x 81" x 113", 221x206x288cm (add 45" for conveyor) |
| Shipping dimensions (W x D x H) | 97" x 91" x 101", 246x229x256cm |
| Machine Weight | 10,582 pounds 4,800 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



GEN MILL

4024

40.55" X 23.62" 3 Axis High Speed Vertical Machining Center

- + 30 Tool High Speed Double Arm ATC
- + 1,417 Inch per Minute Rapid Rates
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + Spindle Chiller for Consistent Thermal Stability
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring



Axis Travel

| | |
|--------------------------------------|---------------------------------|
| X-Travel | 40.55" 1,030mm |
| Y-Travel | 23.62" 600mm |
| Z-Travel | 25.59" 650mm |
| Spindle Nose to Rotary Table Surface | 5.1"– 30.56" 130 – 775mm |
| Spindle Center to Z-axis way covers | 22.83" 580mm (throat dimension) |

Table

| | |
|--------------------------------|---|
| Table Size (LxW) | 45.66" x 19.68" 1,160mm X 500mm |
| T-slot width (5 T-slots total) | 0.709" slot width 18 mm wide on 100mm centers |
| Max. Table Load | 3,530 lbs. 1600 kgs for full accuracy |

Spindle

| | |
|---------------------------------------|---|
| Spindle Motor - S1/S2/S3=11/15/18.5kw | 25-Horsepower Peak, 20-HP 30-minute duty-rating spindle |
| Spindle Speed – Inline Direct-Drive | 12,000rpm (15,000rpm optional) |
| Spindle Torque | 90 ft-lb @ 1,500 rpm |
| Tool Type | CAT #40 Taper, BT #40 optional |
| Spindle Taper Material / Hardness | SCM415 / HRC 58-62 |
| Retention System / Holding Capability | Bellville Spring Stack 1650-1760 lbs |
| Spindle Runout | ≤ 0.000040" T.I.R |
| Spindle Bearings - Front | 110mm NSK 70BNR 2-P4 class-7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR 2-P4 class-7 bearings |
| Retention Knob (pull stud) | C40-4502H (coolant) Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse – X, Y | 1,417 ipm 36m/minute |
| Rapid Traverse – Z | 1,260 ipm 32m/minute |
| Cutting Feedrate | 0.02 - 393 ipm 10m/minute |
| Axis Drive Motor Power – X, Y | 5-HP, 3.5kw |
| Axis Drive Motor Power - Z | 5-HP, 3.5kw |
| Ballscrews – X, Y, Z | 40mm ballscrews 12mm pitch |

Tool Changer

| | |
|---|--|
| Tool Capacity (30+1) | 30-Tool Twin-Arm |
| Tool Shank | CAT#40 Taper BT#40 optional |
| Tool Change Time | 1.7-sec. tool-to-tool |
| Maximum Tool Diameter / w/adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length/Weight | 11.81"/15 lbs. 300mm/7kg |
| Tool Selection / Tool Access | Random access Bi-directional shortest path |

Specifications

| | |
|---------------------------------------|---|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity / Pressure | 97-gallons / 300 psi 256 liters / 20-bar |
| Connected load electrical requirement | 50 Amps / 220vac ±5%, 60-Hz |
| Floor space requirements (W x D x H) | 115" x 82" x 116" (add 48" on left side for conveyor) |
| Shipping dimensions (W x D x H) | 121" x 92" x 121", 306x231x256cm |
| Machine Weight | 15,708 pounds 7,120 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |

GEN MILL



5127

51.27" X 27.56" 3 Axis High Speed Vertical Machining Center

- + 30 Tool High Speed Double Arm ATC
- + Spindle Chiller for Consistent Thermal Stability
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring
- + Y-Axis Supported with 4-Ways



Axis Travel

| | |
|-------------------------------------|----------------------------------|
| X-Travel | 51.27" 1,300mm |
| Y-Travel (4-Linear cross ways) | 27.56" 700mm |
| Z-Travel | 25.59" 650mm |
| Spindle Nose to Table Surface | 5.9" – 31.5" 150 – 800mm |
| Spindle Center to Z-axis way covers | 28.96" 735 mm (throat dimension) |

Table

| | |
|---------------------|--|
| Table Size (LxW) | 57.98 x 27.56" 1,450mm X 700mm |
| T-slots (5 T-Slots) | 0.709" slot width 18 mm on 100mm centers |
| Max. Table Load | 4,850 lbs. 2200 kgs load |

Spindle

| | |
|---------------------------------------|---|
| Spindle Motor - S1/S2/S3=15/18.5/26kw | 35-HP S3 Power, 25-HP 30-minute duty-rating |
| Spindle Speed – Inline Direct-Drive | 12,000rpm |
| Spindle Torque | 90 ft-lb @ 1,500 rpm |
| Tool Type | CAT #40 Taper (BT #40 optional) |
| Spindle Taper Material / Hardness | HRC 58-62 SCM 415 |
| Spindle Orientation | By sensor |
| Spindle Runout | ≤ 0.000040 T.I.R. |
| Spindle Bearings - Front | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Retention System / Holding Capability | Bellville Spring Stack 1650-1760 lbs |
| Retention Knob (pull stud) | C40-4502H (coolant) Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse X and Y / Motor HP | 984 ipm / 6-HP, 25m / minute / 4.5kw |
| Rapid Traverse Z / Motor HP | 984 ipm / 6-HP, 25m / minute / 4.5kw |
| Ballscrews – X, Y, Z | X, Y= 50mm ballscrews 10mm pitch, (Z=40mm) |
| Cutting Feedrate | 0.04 – 393 ipm |

Tool Changer

| | |
|---|------------------------------|
| Tool Capacity (30+1) | 30 Tool Twin-Arm |
| Tool Shank | CAT#40 Taper |
| Tool Change Time (average) | 3.7-seconds tool-to-tool |
| Maximum Tool Diameter / w/adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length | 11.81" 300mm |
| Maximum Tool Weight | 15 lbs. 7kg |
| Tool Selection / Tool Access | Random access Bi-directional |

Specifications

| | |
|--------------------------------------|---|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity / Pressure | 134 gallons / 300 PSI 510 liters |
| Connected Load Electrical Capacity | 75 Amps / 220vac ±5%, 60-Hz |
| Floor space requirements (L x W x H) | 146" x 130" x 119" 370x330x260cm (+ 48" for conveyor) |
| Shipping dimensions (L x W x H) | 126" x 92" x 101" 318x231x256cm |
| Machine Weight | 19,841 pounds 9,000 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



GEN MILL

6328

63.1" X 27.56" 3 Axis High Speed Vertical Machining Center

- + 40 Tool High Speed Double Arm ATC
- + Spindle Chiller for Consistent Thermal Stability
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring
- + Y-Axis Supported with 4-Ways



Axis Travel

| | |
|--|---------------------------------|
| X-Axis Travel (6 cross-roller trucks) | 63" 1,600mm |
| Y-Axis Travel (4 cross-roller ways w/8 trucks) | 27.56" 700mm |
| Z-Axis Travel | 27.56" 700mm |
| Spindle Nose to Rotary Surface | 5.9" – 31.5" 150 – 800mm |
| Spindle Center to Z-Axis covers | 28.74" 730mm (throat dimension) |

Table

| | |
|---------------------|--|
| Table Size (LxW) | 68.9 x 27.56" 1,750mm X 700mm |
| T-slots (5 T-Slots) | 0.709" slot width 18 mm on 100mm centers |
| Max. Table Load | 3,307lbs. 1500 kg load for full accuracy |

Spindle

| | |
|-------------------------------------|--|
| Spindle Motor - S1/S2/S3=22/26/30kw | 25-HP 30-min rating 20-HP constant duty rating |
| Spindle Speed – Inline Direct-Drive | 12,000rpm (15,000 & 20,000 rpm optional) |
| Spindle Torque | 90 ft-lb @ 1,500 rpm |
| Tool Type | CAT #40 Taper (CAT#50, BT#40/50 optional) |
| Spindle Taper Material / Hardness | HRC 58-62 SCM415 |
| Spindle Runout | ≤ 0.000040 T.I.R. |
| Spindle Bearings - Front | 110mm NSK 70BNR 2, P4 class 7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings Retention System |
| Holding Capability | Bellville Spring Stack 1650-1760 lbs |
| Retention Knob (pull stud) | #40 Japanese standard, JMTBA double 45° head angle Ø.590" |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel Least |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse X and Y | 944 ipm 24m/minute |
| Rapid Traverse Z | 944 ipm 24m/minute |
| Ballscrews – X, Y, Z | X, Y=50mm ballscrews 10mm pitch (Z=40mm) |
| Cutting Feedrate | 0.04 – 393 ipm |
| Maximum Thrust Force | 4,408 lbs. 2,000 kg |
| Constant Thrust Force | 2,204 lbs. 1,000 kg |

Tool Changer

| | |
|---|--|
| Tool Capacity (40+1) | 40 Tool Twin-Arm |
| Tool Shank | CAT#40 Taper (CAT#50, BT#40/50 optional) |
| Tool Change Time (average) | 1.7 seconds tool to tool |
| Maximum Tool Diameter / w/adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length | 11.81" 300mm |
| Maximum Tool Weight | 15 lbs. 7kg |
| Tool Selection / Tool Access | Random access Bi-directional |

Specifications

| | |
|--|--|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity / Pressure | 148 gallons / 560 liters |
| Connected Load Electrical Requirements | 75 Amps / 220vac ±5%, 60-Hz |
| Floor space requirements (L x W x H) | 185" x 130" x 120" 470x330x260cm (add 48" for chip conveyor) |
| Shipping dimensions (L x W x H) | 219" x 92" x 104" 558x232x256cm |
| Machine Weight | 26,455 pounds 12,000 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |



GEN MILL

7039

70.86" X 39.37" 3 Axis High Speed Vertical Machining Center

- + 40 Tool High Speed Double Arm ATC
- + Spindle Chiller for Consistent Thermal Stability
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring
- + Y-Axis Supported with 4-Ways



Axis Travel

| | |
|-------------------------------------|----------------------------------|
| X-Travel | 70.86" 1,800mm |
| Y-Travel | 39.37" 1000mm |
| Z-Travel | 35.43" 900mm |
| Spindle Nose to Table Surface | 9.8"– 45.27" 250 – 1150mm |
| Spindle Center to Z-Axis way covers | 41.53" 1055mm (throat dimension) |

Table

| | |
|---------------------|--|
| Table Size (LxW) | 76.77" x 35.43" 1,950mm X 900mm |
| T-slots (5 T-Slots) | 22mm slot width on 160mm centers |
| Max. Table Load | 6,600 lbs. 3000 kgs load for full accuracy |

Spindle

| | |
|---------------------------------------|---|
| Spindle Motor – S1/S2=22/26 kW | 50-Horsepower Peak, 35-HP 30-minute duty-rating |
| Spindle Speed | 12,000rpm (15,000 optional) |
| Tool Type | CAT #40 Taper (CAT/BT #40 & #50 taper optional) |
| Spindle Taper Material / Hardness | SCM415 / HRC58-62 |
| Retention System / Holding Capability | Bellville Spring Stack, 1650-1760 lbs |
| Spindle Runout | 0.000040 T.I.R. |
| Spindle Bearings - Front | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Retention Knob (pull stud) | C40-4502H (coolant) Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse Z and Y | 590 ipm 15m/minute |
| Rapid Traverse Z | 472 ipm 12m/minute |
| Ballscrews – X, Y, Z | 63mm ballscrews 10mm pitch |
| Cutting Feedrate | 0.02 - 393 ipm 10m/minute |
| Axis Drive Motor Power – Z, Y | 9.4-HP 7kw |
| Axis Drive Motor Power - Z | 9.4-HP 7kw w/brake |

Tool Changer

| | |
|--|--|
| Tool Capacity (40+1) | 40 Tool Twin-Arm, Chain-Drive |
| Tool Shank | CAT#40 Taper (CAT#50, BT#40/50 optional) |
| Tool Change Time | 4.3-second tool-to-tool |
| Maximum Tool Diameter w/ adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length | 11.81" 300mm |
| Maximum Tool Weight | 15lbs / 7kg |
| Tool Selection / Tool Access | Random access / Bi-directional |

Specifications

| | |
|---------------------------------------|---|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity | 172 gallons / 650 liters |
| Connected Load Electrical Requirement | 100amps / 220vac ±5% 60-Hz |
| Floor Space Requirements | 193" x 131" x 142" 490x332x360cm (add 47" for conveyor) |
| Shipping dimensions (L x W x H) | 217" x 146" x 150" 550x370x380cm |
| Machine Weight | 44,092 pounds 20,000 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |

GEN MILL



10039

98.42" X 39.37" 3 Axis High Speed Vertical Machining Center

- + 40 Tool High Speed Double Arm ATC
- + Spindle Chiller for Consistent Thermal Stability
- + 12,000 RPM Double-Ground "Big-Plus" Spindle
- + 300-PSI Through-the-Tool Coolant System
- + 2,700 Block Look-Ahead High-Speed Machining
- + 4th & 5th Axis Wiring
- + Y-Axis Supported with 4-Ways



Axis Travel

| | |
|-------------------------------------|--|
| X-Travel | 98.425" 2,500mm |
| Y-Travel | 39.37" 1000mm |
| Z-Travel | 35.43" (39.37" opt.) 900mm (1000mm opt.) |
| Spindle Nose to Table Surface | 9.8"– 45.27" 250 – 1150mm |
| Spindle Center to Z-axis way covers | 41.53" 1055mm (throat dimension) |

Table

| | |
|---------------------|-----------------------------------|
| Table Size (LxW) | 98.42" x 39.37" 2,500mm X 1000mm |
| T-slots (5 T-Slots) | 22mm slot width on 1260mm centers |
| Max. Table Load | 7,700 lbs. 3500 kgs load |

Spindle

| | |
|---------------------------------------|---|
| Spindle Motor – S1/S2=22/26 kW | 50-Horsepower Peak, 35-HP 30-minute duty-rating |
| Spindle Speed | 12,000rpm (15,000 optional) |
| Tool Type | CAT #40 Taper (CAT/BT #40 & #50 taper optional) |
| Spindle Taper Material / Hardness | SCM415 / HRC58-62 |
| Retention System / Holding Capability | Bellville Spring Stack, 1650-1760 lbs |
| Spindle Runout | 0.000040 T.I.R. |
| Spindle Bearings - Front | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Spindle Bearings - Rear | 110mm NSK 70BNR 10 x 2, P4 class-7 bearings |
| Retention Knob (pull stud) | C40-4502H (coolant) Japanese Standard |

Axis Feeds

| | |
|--|---|
| Accuracy X, Y, & Z axis (JIS6338) | ± 0.0002" / 12" ± 0.005mm over 300mm travel |
| Repeatability X, Y, & Z axis (JIS6338) | ± 0.0001" / 12" ± 0.003mm over 300mm travel |
| Least Input Command Increment | 0.0001" / 0.000040" 0.001mm / (40-millionths in metric) |
| Rapid Traverse – Z, Y | 472 ipm 12m/minute |
| Rapid Traverse Z | 393 ipm 10m/minute |
| Ballscrews – X, Y, Z | 63mm ballscrews 10mm pitch |
| Cutting Feedrate | 0.02 - 393 ipm 10m/minute |
| Axis Drive Motor Power – Z, Y | 10-HP 7kw |
| Axis Drive Motor Power - Z | 10-HP 7kw w/brake |

Tool Changer

| | |
|--|--|
| Tool Capacity (40+1) | 40 Tool Twin-Arm Chain-Drive |
| Tool Shank | CAT#50 Taper (CAT#40, BT#40/50 optional) |
| Tool Change Time | 4.3-second tool-to-tool |
| Maximum Tool Diameter w/ adjacent tool | 5.90" / 3.15" 150mm / 80mm |
| Maximum Tool Length | 11.81" 300mm |
| Maximum Tool Weight | 15lbs / 7kg |
| Tool Selection / Tool Access | Random access / Bi-directional |

Specifications

| | |
|---------------------------------------|---|
| Air Service Requirements | 85 psi @ 14-scfm |
| Coolant Capacity | 172 gallons / 650 liters |
| Connected Load Electrical Requirement | 100 Amps / 220vac ±5%, 60-Hz |
| Floor space Requirements | 237" x 146" x 142" 600x370x360cm (add 52" for conveyor) |
| Shipping dimensions (L x W x H) | 248" x 154" x 150" 630x390x380cm |
| Machine Weight | 66,138 pounds 30,000 kg |
| Warranty – 1-year machine warranty | 3-year Mitsubishi control, motors, & drive warranty |