

CNC MACHINE PRODUCT LINE-UP



TECHNICAL CATALOG

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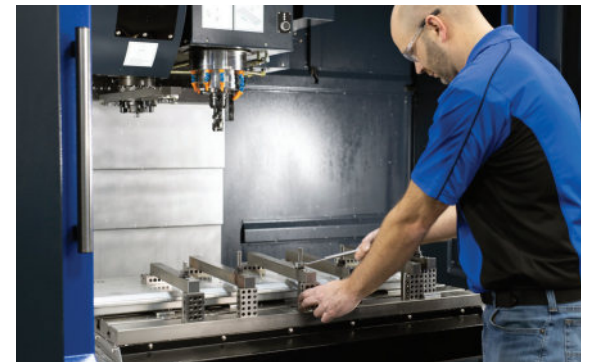
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GROW WITH MILLTRONICS.

While Milltronics is well known for having the most comprehensive line of tool room machines equipped with a completely integrated control, we've grown our product line to over 50 models of CNC machines. Based in Waconia, a suburb of Minneapolis, Minnesota, we have decades of experience in the machine tool industry. In 2015, we invested in growing our product line and enhancing the Milltronics control. Our purpose at Milltronics is to offer customers affordable and well-built CNC machines equipped with an advanced yet straightforward control that features an easy-to-use operator interface with the added benefit of a G-Code Visualization screen. This catalog is organized to highlight our five series of mills and two series of lathes, but we continue to grow! For the latest information, go to Milltronics.com. We hope you will choose to grow your business with Milltronics.



CNC MACHINE PRODUCT LINE-UP



TOOL ROOM MILLS

Milltronics has a long history of building tool room mills that can be run as manual, teach, or full CNC. Popular in tool rooms, job shops, and tool & die, these machines are very flexible and can be used for a wide variety of parts.



GENERAL PURPOSE VERTICAL MACHINING CENTERS

The VM Series CNC mills offer a great combination of standard features (that the other guys charge extra for) and performance at a great price.



PERFORMANCE IL VERTICAL MACHINING CENTERS

The IL Series machines have inline spindles, roller guides for rigidity, direct-coupled ballscrews for quick response, and dual wound spindles for faster acceleration/deceleration.



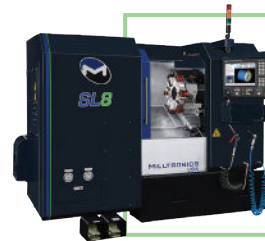
EXTRA POWER VERTICAL MACHINING CENTERS

XP Series VMCs are #50 taper machines built with robust cross rollers and high torque dual speed spindle motors.



TOOL ROOM COMBO LATHES

The ML Series of combo lathes can be run as manual, teach, or full CNC. They feature easy thread repair and are available in more than 15 sizes.



SLANT BED CNC LATHES

The SL Series CNC lathes feature robust true slant bed castings, roller ways for rigidity, direct coupled ballscrews and more.



BRIDGE MILLS

Between a router and a heavy-duty cast bridge mill, BR Series machines are fast (up to 1,000 IPM) and require no special foundation.



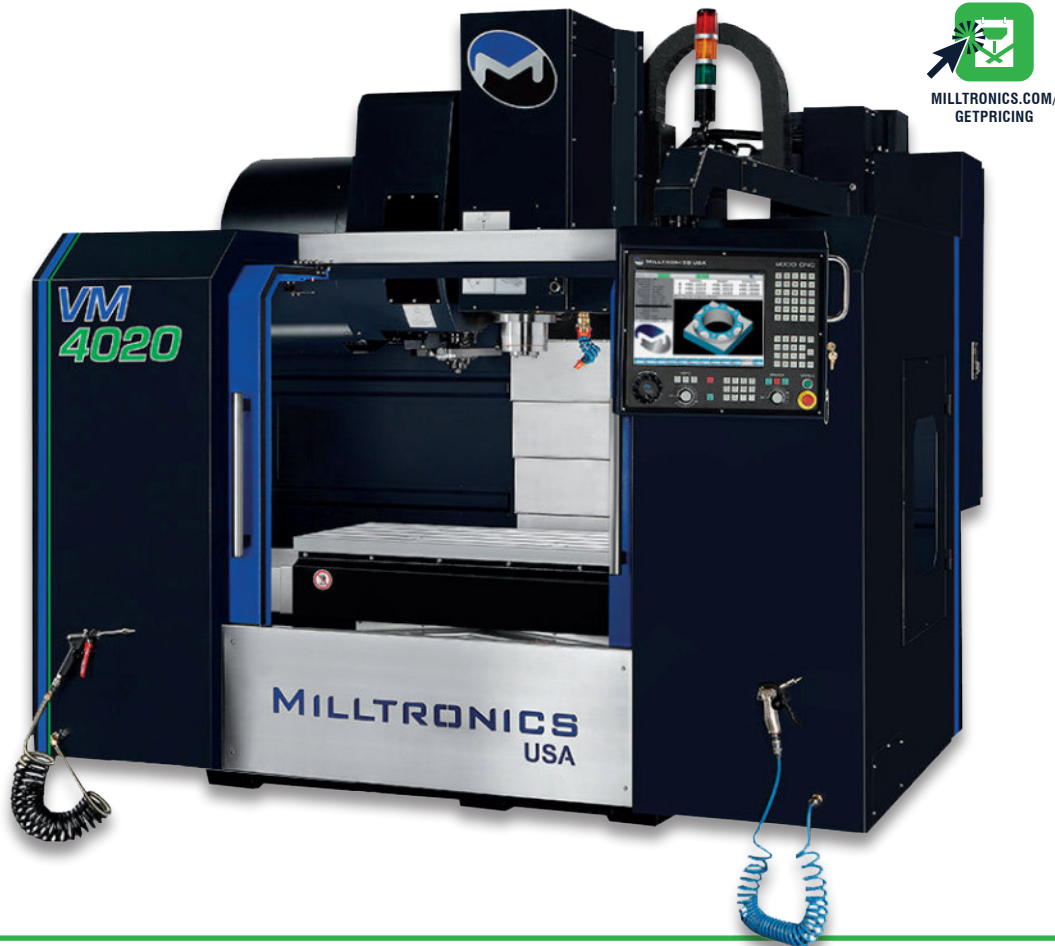
9000 SERIES CONTROL

Our control is straightforward and easy to use. When programming you can choose between conversational, G-code or use a CAM system – whatever is the most efficient way to program your parts.

VERTICAL MACHINING CENTERS

40 TAPER | VM SERIES

The Milltronics VM Series vertical machining centers offer a great combination of features and performance at an attractive price. The VM Series machines are belt-driven and include standard features such as full enclosures, swing-arm tool changers, 10,000 RPM BIG-PLUS® dual contact spindles, the 9000 Series control, and more.



STANDARD FEATURES

- Heavily ribbed one piece fine grain cast iron casting
- Fully enclosed machine guard with side doors
- 30/35 mm linear way technology
- Precision ground ballscrews supported at both ends
- Precision ground table surface
- Telescopic metal way covers
- 20 pocket double arm ATC
- CAT 40
- Automatic positive displacement lubrication system
- High torque AC digital servo drives
- High torque closed loop vector spindle drive system
- Work light (right side)
- LCD hour meter
- Spindle taper blow-out and tool release button
- Spare "M" function with CNC "wait" channel
- Programmable on/off flood coolant system
- Rigid tap
- Edit key lockout switch
- Spindle load meter
- Feedrate and spindle speed overrides
- Spindle air purge
- End of cycle light

OPTIONS

- Coolant through spindle system
- Part and tool probes
- 4th axis options
- Chip auger chip removal system
- Lift up chip conveyor chip removal system
- Remote handwheel
- Auxiliary industrial grade keyboard
- Electronic spindle chiller
- Air gun
- Coolant wash down gun
- Additional work light (left side)
- BT style tooling
- ChipBoss™ Trochoidal Milling Software
- Milltronics Shop View
- Digital Setup Assistant

| SPECIFICATIONS | VM2515 | VM3018 | VM4020 | VM5020 | VM5020EZ |
|--|------------------------------------|--|--|--------------------------------------|--------------------------------------|
| TABLE | | | | | |
| TABLE WORKING SURFACE | 30 x 16 in (762 x 406 mm) | 34 x 18 in (864 x 457 mm) | 46 x 20 in (1,168 x 508 mm) | 52 x 20 in (1,321 x 508 mm) | 52 x 20 in (1,321 x 508 mm) |
| TABLE T-SLOTS | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) |
| MAXIMUM WEIGHT ON TABLE | 1,500 lbs (682 kg) | 1,750 lbs (794 kg) | 2,000 lbs (907 kg) | 2,000 lbs (907 kg) | 2,000 lbs (907 kg) |
| TRAVELS | | | | | |
| X-AXIS | 25 in (635 mm) | 30 in (762 mm) | 40 in (1016 mm) | 50 in (1270 mm) | 50 in (1270 mm) |
| Y-AXIS | 15 in (381 mm) | 18 in (457 mm) | 20 in (508 mm) | 20 in (508 mm) | 20 in (508 mm) |
| Z-AXIS | 20 in (508 mm) | 20 in (508 mm) | 20 in (508 mm) | 20 in (508 mm) | 20 in (508 mm) WITH 150 MM RISER |
| SPINDLE MOTOR | | | | | |
| SPINDLE POWER (MAXIMUM) | 15/10 HP (11/7.5 kW) | 20/15 HP (15/11 kW) | 20/15 HP (15/11 kW) | 20/15 HP (15/11 kW) | 20/15 HP (15/11 kW) |
| SPINDLE TORQUE (MAXIMUM) | 54 ft-lbs (73 Nm) | 75 ft-lbs (102 Nm) | 75 ft-lbs (102 Nm) | 75 ft-lbs (102 Nm) | 75 ft-lbs (102 Nm) |
| SPINDLE | | | | | |
| SPINDLE TAPER | CAT 40 | CAT 40 | CAT 40 | CAT 40 | CAT 40 |
| SPINDLE NOSE TO TABLE | 4-24 in (101-610 mm) | 4-24 in (101-610 mm) | 4-24 in (101-610 mm) | 4-24 in (101-610 mm) | 10-30 in (252-760 mm) |
| SPINDLE SPEED (MAXIMUM) | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM |
| TOOL CHANGER | | | | | |
| TOOL CAPACITY / TYPE | 20 DOUBLE ARM | 20 DOUBLE ARM | 20 DOUBLE ARM | 20 DOUBLE ARM | 20 DOUBLE ARM |
| MAXIMUM TOOL DIAMETER | 3.1 in (80 mm) | 3.1 in (80 mm) | 3.1 in (80 mm) | 3.1 in (80 mm) | 3.1 in (80 mm) |
| MAXIMUM TOOL LENGTH | 9.5 in (240 mm) | 9.5 in (240 mm) | 9.5 in (240 mm) | 9.5 in (240 mm) | 9.5 in (240 mm) |
| MAXIMUM TOOL WEIGHT | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) |
| FURTHER DETAILS | | | | | |
| X/Y/Z RAPID TRAVERSE RATE | 945 IPM (24 m/min) | 945 IPM (24 m/min) | 945 IPM (24 m/min) | 945 IPM (24 m/min) | 945 IPM (24 m/min) |
| MACHINE HEIGHT | 101 in (2,565 mm) | 102 in (2,590 mm) | 102 in (2,590 mm) | 102 in (2,590 mm) | 107.3 in (2,725 mm) |
| MAXIMUM FLOOR SPACE REQUIRED - (W x D) ALL DOORS OPEN | 130 x 119 in (3,303 x 3,023 mm) | 136.5 x 126.4 in (3,467 x 3,210 mm) | 146.5 x 126.4 in (3,721 x 3,210 mm) | 161 x 126.4 in (4,086 x 3,210 mm) | 161 x 126.4 in (4,086 x 3,210 mm) |
| MACHINE WEIGHT | 6,200 lbs (2,818 kg) | 9,000 lbs (4,100 kg) | 9,100 lbs (4,125 kg) | 9,340 lbs (4,245 kg) | 9,500 lbs (4,309 kg) |
| POWER REQUIRED | 16 KVA/40 Amps | 21 KVA/53 Amps | 21 KVA/53 Amps | 21 KVA/53 Amps | 21 KVA/53 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

VERTICAL MACHINING CENTERS

40 TAPER INLINE | IL SERIES

The IL stands for inline since this series of vertical machining centers is equipped with a 40-taper BIG-PLUS® dual-contact inline spindle. Inline spindles run smooth and quiet with minimal heat and reduced vibration providing better surface finish and longer tool life. The 10,000 RPM inline spindles have dual wound spindle motors for faster acceleration/deceleration and more torque. The IL machines also have bigger castings, faster rapids, and more standard features.



STANDARD FEATURES

- Heavily ribbed one piece fine grain cast iron casting
- Fully enclosed machine guard with side doors
- 35/45 mm roller linear way technology
- Precision ground ballscrews supported at both ends
- Precision ground table surface
- Telescopic metal way covers
- 30 pocket arm type ATC
- CAT 40
- Automatic positive displacement lubrication system
- High torque AC digital servo drives
- High torque closed loop vector spindle drive system
- Dual work lights
- LCD hour meter
- Spindle taper blow-out and tool release button
- Single spare "M" function with CNC "wait" channel
- Programmable on/off flood coolant system
- Rigid tap
- Edit key lockout switch
- Spindle load meter
- Feedrate and spindle speed overrides
- Spindle air purge
- End of cycle light
- Chip conveyor chip removal system
- Remote handwheel
- Air gun
- Coolant wash down gun

OPTIONS

- Coolant through spindle system
- Work offset probing
- 4th axis options
- Auxiliary industrial grade keyboard
- Electronic spindle chiller
- BT style tooling
- 15,000 RPM spindle
- Thermal head mapping
- ChipBoss™ Trochoidal Milling Software
- Milltronics Shop View
- Digital Setup Assistant
- Programmable spray-mist and air-blast

| SPECIFICATIONS | VM3018IL | VM4222IL | VM5025IL | VM6030IL |
|--|------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|
| TABLE | | | | |
| TABLE WORKING SURFACE | 34 x 18 in (864 x 457 mm) | 46 x 22 in (1,168 x 559 mm) | 54 x 25 in (1,372 x 635 mm) | 66 x 30 in (1,680 x 762 mm) |
| TABLE T-SLOTS | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) |
| MAXIMUM WEIGHT ON TABLE | 3,000 lbs (1,360 kg) | 3,000 lbs (1,360 kg) | 3,000 lbs (1,360 kg) | 3,000 lbs (1,360 kg) |
| TRAVELS | | | | |
| X-AXIS | 30 in (762 mm) | 42 in (1,067 mm) | 50 in (1,270 mm) | 60 in (1,524 mm) |
| Y-AXIS | 18 in (457 mm) | 22 in (559 mm) | 25 in (635 mm) | 30 in (762 mm) |
| Z-AXIS | 22 in (559 mm) | 24 in (610 mm) | 24 in (610 mm) | 24 in (610 mm) |
| SPINDLE MOTOR | | | | |
| SPINDLE POWER (MAXIMUM) | 24/15 HP (18/11 kW) | 24/15 HP (18/11 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) |
| SPINDLE TORQUE (MAXIMUM) | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) |
| SPINDLE | | | | |
| SPINDLE TAPER | CAT 40 | CAT 40 | CAT 40 | CAT 40 |
| SPINDLE NOSE TO TABLE | 6-28 in (152-712 mm) | 5-29 in (125-735 mm) | 6-30 in (152-762 mm) | 4-28 in (100-710 mm) |
| SPINDLE SPEED (MAXIMUM) | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM |
| TOOL CHANGER | | | | |
| TOOL CAPACITY / TYPE | 30 DOUBLE ARM | 30 DOUBLE ARM | 30 DOUBLE ARM | 30 DOUBLE ARM |
| MAXIMUM TOOL DIAMETER | 3.1 in (80 mm) | 3.1 in (80 mm) | 3.1 in (80 mm) | 3.1 in (80 mm) |
| MAXIMUM TOOL LENGTH | 11.8 in (300 mm) | 11.8 in (300 mm) | 11.8 in (300 mm) | 11.8 in (300 mm) |
| MAXIMUM TOOL WEIGHT | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) |
| FURTHER DETAILS | | | | |
| X/Y/Z RAPID TRAVERSE RATE | 1,200/1,000 IPM (30/25 m/min) | 1,200/1,000 IPM (30/25 m/min) | 1,000/787 IPM (25/20 m/min) | 1,000/787 IPM (25/20 m/min) |
| MACHINE HEIGHT | 119 in (3,025 mm) | 121 in (3,060 mm) | 122 in (3,099 mm) | 123 in (3,124 mm) |
| MAXIMUM FLOOR SPACE REQUIRED - (W x D) ALL DOORS OPEN | 161 x 147 in (4,089 x 3,729 mm) | 180 x 134 in (4,560 x 3,400 mm) | 199.3 x 140 in (5,061 x 3,552 mm) | 222 x 148.5 in (5,635 x 3,773 mm) |
| MACHINE WEIGHT | 10,700 lbs (4,850 kg) | 14,775 lbs (6,702 kg) | 17,900 lbs (8,120 kg) | 21,800 lbs (9,900 kg) |
| POWER REQUIRED | 27 KVA/66 Amps | 28 KVA/70 Amps | 32 KVA/80 Amps | 32 KVA/80 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

VERTICAL MACHINING CENTERS

50 TAPER | XP SERIES

The XP stands for extra power since these CNC machines are built with a 50 taper spindle and linear cross roller guides for rigidity, direct-coupled ballscrews for faster response, and dual wound spindle motors for faster acceleration/deceleration and more torque. Standard with up to 35 HP for maximum metal removal, the XP Series features a heavy duty belt drive spindle and also includes more standard features, such as a coolant ring and washdown system, lift-up chip conveyor, and height adjustment on the control.



STANDARD FEATURES

- Heavily ribbed one piece fine grain cast iron casting
- Fully enclosed machine guard with side doors
- 45 mm roller linear way technology
- Precision ground ballscrews supported at both ends
- Precision ground table surface
- Telescopic metal way covers
- 30 pocket double arm ATC
- CAT 50
- Automatic positive displacement lubrication system
- High torque AC digital servo drives
- High torque closed loop vector spindle drive system
- Dual work lights
- LCD hour meter
- Spindle taper blow-out and tool release
- Spare "M" function with CNC "wait" channel
- Programmable on/off flood coolant system
- Rigid tap
- Edit key lockout switch
- Spindle load meter
- Feedrate and spindle speed overrides
- Spindle air purge
- End of cycle light
- Chip conveyor and washdown chip removal system
- Remote handwheel
- Air gun
- Coolant wash down gun

OPTIONS

- Coolant through spindle system
- Programmable spray mist coolant
- Tool and part probes
- 4th axis options
- Auxiliary industrial grade keyboard
- Electronic spindle chiller
- BT style tooling
- ChipBoss™ Trochoidal Milling Software
- Milltronics Shop View
- Digital Setup Assistant

| SPECIFICATIONS | VM5025XP | VM6030XP | VM8434XP |
|--|------------------------------------|--------------------------------------|--|
| TABLE | | | |
| TABLE WORKING SURFACE | 54 x 25 in (1,372 x 635 mm) | 66 x 30 in (1,680 x 762 mm) | 86 x 34 in (2,184 x 865 mm) |
| TABLE T-SLOTS | .71 in (18 mm) | .71 in (18 mm) | .71 in (18 mm) |
| MAXIMUM WEIGHT ON TABLE | 3,000 lbs (1,360 kg) | 3,000 lbs (1,360 kg) | 5,000 lbs (2,268 kg) |
| TRAVELS | | | |
| X-AXIS | 50 in (1,270 mm) | 60 in (1,524 mm) | 84 in (2,134 mm) |
| Y-AXIS | 25 in (635 mm) | 30 in (762 mm) | 34 in (864 mm) |
| Z-AXIS | 24 in (610 mm) | 24 in (610 mm) | 30 in (762 mm) |
| SPINDLE MOTOR | | | |
| SPINDLE POWER (MAXIMUM) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) |
| SPINDLE TORQUE (MAXIMUM) | 365 ft-lbs (495 Nm) | 365 ft-lbs (495 Nm) | 365 ft-lbs (495 Nm) |
| SPINDLE | | | |
| SPINDLE TAPER | CAT 50 | CAT 50 | CAT 50 |
| SPINDLE NOSE TO TABLE | 6-30 in (152-762 mm) | 4-28 in (101-710 mm) | 4.5-34.5 in (114-876 mm) |
| SPINDLE SPEED (MAXIMUM) | 8,000 RPM | 8,000 RPM | 8,000 RPM |
| TOOL CHANGER | | | |
| TOOL CAPACITY / TYPE | 30 DOUBLE ARM | 30 DOUBLE ARM | 32 DOUBLE ARM |
| MAXIMUM TOOL DIAMETER | 4.9 in (125 mm) | 4.9 in (125 mm) | 4.9 in (125 mm) |
| MAXIMUM TOOL LENGTH | 11.8 in (300 mm) | 11.8 in (300 mm) | 11.8 in (300 mm) |
| MAXIMUM TOOL WEIGHT | 33 lbs (15 kg) | 33 lbs (15 kg) | 33 lbs (15 kg) |
| FURTHER DETAILS | | | |
| X/Y/Z RAPID TRAVERSE RATE | 1,000/787 IPM (25/20 m/min) | 1,000/787 IPM (25/20 m/min) | 709/530 IPM (18/13.5 m/min) |
| MACHINE HEIGHT | 123 in (3,124 mm) | 123 in (3,124 mm) | 130.5 in (3,616 mm) |
| MAXIMUM FLOOR SPACE REQUIRED - (W x D) ALL DOORS OPEN | 199 x 141 in (5,060 x 3,582 mm) | 222 x 148.5 in (5,635 x 3,773 mm) | 297.5 x 165.4 in (7,557 x 4,202 mm) |
| MACHINE WEIGHT | 20,100 lbs (9,136 kg) | 22,267 lbs (10,100 kg) | 37,260 lbs (16,936 kg) |
| POWER REQUIRED | 43 KVA/108 Amps | 43 KVA/108 Amps | 43 KVA/108 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

TOOL ROOM MILLS

40 TAPER

Milltronics has a long history of building tool room mills that can be run as manual, teach or full CNC with thousands of satisfied users. Popular in tool rooms, job shops, and tool & die, these machines are very flexible and can be used for a wide variety of different parts. We offer two types of quill machines in a traditional knee style (VK) as well as a bed type (MB). The rigid head (RH) machines are available in four different sizes starting with a compact 30" x 17" model up to a large travel 78" x 33". The TRM3016 is a tool room mill that offers large travels, speed, and power at a great price. The TRM3016 (pictured below) has "drop down" door openings for long part pass-through to help accommodate oversize parts. Milltronics tool room mills (with the exception of the VK4II) are fitted with the 9000 Series control.



VK4II – MILLSLIDE™

The unique MillSlide™ on the VK4II provides rigid, CNC programmable, Z-axis travel. By traversing the entire head up and down the MillSlide™ is more robust than competitor's quilldriven solutions. The MillSlide™ allows for both full

CNC and full manual functionality of the head and quill. Add the optional Quill Scale that integrates with the CNC feedback and you have a built in Z-axis DRO display that can also be used to touch off tools super-fast, or even extend your Z-axis tool reach into a deep pocket in fully automatic CNC mode. Do more with Milltronics MillSlide™.



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STANDARD FEATURES

- Solid box way construction (most models)
- X/Y axis metal way cover construction (most models)
- Auto lubrication
- CAT 40
- Spindle load meter
- Spindle air purge (excluding VK / MB models)
- Flood coolant
- Rigid tapping (excluding VK model)
- LCD hour meter
- One year warranty

OPTIONS (AVAILABILITY VARIES BY FRAME)

- Enclosure top cover
- Chip auger
- Remote handwheel
- Milltronics rotary tables
- Renishaw tool and part probes
- Programmable spray mist or air blast
- Auxiliary keyboard
- Extended warranty
- Factory start-up and on-site training
- Training at Milltronics (Waconia, MN)
- Printed manuals (PDF standard)
- Milltronics logo floor mat
- ChipBoss™ Trochoidal Milling Software
- Milltronics Shop View (MSV)
- Offline DGI software
- Quill scale

INFORMATION ON THE 8200-B CNC CONTROL



Scan QR code to
learn more!

| SPECIFICATIONS | TRM3016 | VK4II 8200-B CNC | MB20 | RH20 | RH30 | RH33 |
|--|--|---|-------------------------------------|--|--|--|
| TABLE | | | | | | |
| TABLE WORKING SURFACE | 35.4 x 16 in (900 x 406 mm) | 54 x 12 in (1,370 x 305 mm) | 54 x 16 in (1,370 x 405 mm) | 54 x 16 in (1,370 x 405 mm) | 73 x 24 in (1,850 x 610 mm) | 86 x 32 in (2,185 x 810 mm) |
| TABLE T-SLOTS | .71 (18 mm) | .63 in (16 mm) | .63 in (16 mm) | .63 in (16 mm) | .71 in (18 mm) | .71 in (18 mm) |
| MAXIMUM WEIGHT ON TABLE | 992 lbs (450 kg) | 1,500 lbs (680 kg) | 2,500 lbs (1,130 kg) | 2,500 lbs (1,130 kg) | 3,000 lbs (1,360 kg) | 3,500 lbs (1,600 kg) |
| TRAVELS | | | | | | |
| X-AXIS | 30 in (762 mm) | 33 in (838 mm) | 40 in (1,015 mm) | 40 in (1,016 mm) | 60 in (1,525 mm) | 78 in (2,000 mm) |
| Y-AXIS | 16 in (406 mm) | 14.25 in (362 mm) | 20 in (508 mm) | 20 in (508 mm) | 30 in (760 mm) | 33 in (840 mm) |
| Z-AXIS | 20 in (508 mm) | QUILL: 5.8 in (148 mm) MILLSLIDE: 5.25 in (133 mm) | 24 in (610 mm) | 24 in (610 mm) | 28 in (710 mm) | 28 in (710 mm) |
| SPINDLE MOTOR | | | | | | |
| SPINDLE POWER (MAXIMUM) | 15/10 HP (11/7.5 kW) | 7.5 HP (5.5 kW) | 10/7.5 HP (7.5/5.5 kW) | 20/15 HP (15/11 kW) | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE |
| SPINDLE TORQUE (MAXIMUM) | 67 ft-lbs (90 Nm) | 204 ft-lbs (276 Nm) | 300 ft-lbs (407 Nm) | 75 ft-lbs (102 Nm) | 250 ft-lbs (339 Nm) | 250 ft-lbs (339 Nm) |
| SPINDLE | | | | | | |
| SPINDLE TAPER | CAT 40 | CAT 40 | CAT 40 | CAT 40 | CAT 40 | CAT 40 |
| SPINDLE NOSE TO TABLE | 4-24 in (101-610 mm) | 1.8-23.4 in (45-595 mm) | 3.75-27.75 in (95-705 mm) | 2-26 in (50-660 mm) | 2.5-30.5 in (65-775 mm) | 4-32 in (100-810 mm) |
| SPINDLE SPEED (MAXIMUM) | 8,000 RPM | 4,000 RPM | 4,000 RPM | 8,000 RPM | 8,000 RPM | 8,000 RPM |
| TOOL CHANGER | | | | | | |
| TOOL CAPACITY / TYPE | 16 CAROUSEL | — | — | 24 CAROUSEL (OPTIONAL TOOL CHANGER) | 24 CAROUSEL (OPTIONAL TOOL CHANGER) | 24 CAROUSEL (OPTIONAL TOOL CHANGER) |
| MAXIMUM TOOL DIAMETER | 4 in (100 mm) | — | — | 3.5 in (80 mm) | 3.5 in (89 mm) | 3.5 in (89 mm) |
| MAXIMUM TOOL LENGTH | 11 in (280 mm) | — | — | 6 in (150 mm) | 7 in (175 mm) | 10 in (250 mm) |
| MAXIMUM TOOL WEIGHT | 10 lbs (4.5 kg) | — | — | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) |
| FURTHER DETAILS | | | | | | |
| X/Y/Z RAPID TRAVERSE RATE | 700 IPM (17.8 m/min) | 300 IPM (7.62 m/min) | 500/300 IPM (12/7.6 m/min) | 500/300 IPM (12/7.6 m/min) | 500/400 IPM (12/10 m/min) | 800/600 IPM (20/15 m/min) |
| MACHINE HEIGHT | 110 in (2,564 mm) | 100.79 in (2,560 mm) | 110 in (2,564 mm) | 103 in (2,616.2 mm) | 106 in (2,695 mm) | 113 in (2,870 mm) |
| MAXIMUM FLOOR SPACE REQUIRED - (W x D) ALL DOORS OPEN | 179.8 x 121.2 in (4,566 x 3,077 mm) | 117.95 x 85 in (2,996 x 2,160 mm) | 129 x 82 in (3,276.6 x 2,083 mm) | 129 x 82 in (3,276.6 x 2,083 mm) | 169 x 99 in (4,293 x 2,515 mm) | 238 x 162 in (6,045 x 4,115 mm) |
| MACHINE WEIGHT | 6,900 lbs (3,130 kg) | 4,100 lbs (1,860 kg) | 7,000 lbs (3,200 kg) | 8,000 lbs (3,628 kg) | 11,000 lbs (5,000 kg) | 15,000 lbs (6,800 kg) |
| POWER REQUIRED | 16 KVA/40 Amps | 12.5 KVA/33 Amps | 16 KVA/40 Amps | 20 KVA/50 Amps | 30 KVA/80 Amps | 30 KVA/80 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

BRIDGE MILLS

40 TAPER INLINE | BR SERIES

The Milltronics BR Series bridge mills are fast machines in between a CNC router and a heavy-duty cast bridge mill. With speeds of up to 1,000 IPM, BR Series mills are built with linear cross roller guides, 24 HP 40 taper BIG-PLUS® inline spindles (either 10,000 or 15,000 RPM), and massive travels. Six different sizes are available up to 200" in X-travel by 80" in Y-travel. No special foundation is required, making for quick and affordable installation. Popular in high-speed applications such as aluminum, metal fabrications, plastics, wood patterns, and other large parts, the BR Series bridge mills are a faster and more affordable alternative to heavy-duty cast bridge mills.



STANDARD FEATURES

- 1.73" (45 mm) linear roller way technology
- 10,000 RPM CAT 40 spindle
- 24/15 HP 2 speed spindle motor
- Spindle air purge
- X-axis metal way cover construction
- 12" LCD color display
- Networking
- Automatic lubrication
- Tri-color end of cycle light
- 1000 IPM rapid traverse rate
- Solid model graphic display
- LCD hour meter
- Single spare "M" function
- 1 GB program storage memory
- One year warranty

OPTIONS

- 35/25 HP two speed spindle motor
- 15,000 RPM spindle
- Spindle chiller
- Milltronics rotary tables
- Tool and part probing
- Thermal head mapping
- Additional spare "M" functions
- Chip management system (enclosure, flood system, lift-up conveyor)
- 40 pocket ATC (BR80 sizes only)
- Programmable spray mist and air blast
- Digital Setup Assistant
- Milltronics Shop View
- ChipBoss™ Trochoidal Milling Software
- Removable doors

| SPECIFICATIONS | BR5100IL | BR6100IL | BR6150IL | BR8100IL | BR8150IL | BR8200IL |
|--|------------------------------------|------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| TABLE | | | | | | |
| TABLE WORKING SURFACE | 50 x 100 in (1,270 x 2,540 mm) | 60 x 100 in (1,525 x 2,540 mm) | 60 x 150 in (1,525 x 3,800 mm) | 80 x 100 in (2,030 x 2,540 mm) | 80 x 150 in (2,030 x 3,800 mm) | 80 x 200 in (2,030 x 5,080 mm) |
| MAXIMUM WEIGHT ON TABLE | 5,000 lbs (2,270 kg) | 5,000 lbs (2,270 kg) | 5,000 lbs (2,270 kg) | 5,000 lbs (2,270 kg) | 5,000 lbs (2,270 kg) | 5,000 lbs (2,270 kg) |
| TRAVELS | | | | | | |
| X-AXIS | 100 in (2,540 mm) | 100 in (2,540 mm) | 150 in (3,800 mm) | 100 in (2,540 mm) | 150 in (3,800 mm) | 200 in (5,080 mm) |
| Y-AXIS | 50 in (1,270 mm) | 60 in (1,525 mm) | 60 in (1,525 mm) | 80 in (2,030 mm) | 80 in (2,030 mm) | 80 in (2,030 mm) |
| Z-AXIS | 28 in (710 mm) | 28 in (710 mm) | 28 in (710 mm) | 28 in (710 mm) | 28 in (710 mm) | 28 in (710 mm) |
| SPINDLE | | | | | | |
| SPINDLE GAGE LINE TO TABLE DISTANCE | 4-32 in (100-810 mm) | 4-32 in (100-810 mm) | 4-32 in (100-810 mm) | 4-32 in (100-810 mm) | 4-32 in (100-810 mm) | 4-32 in (100-810 mm) |
| SPINDLE TAPER | CAT 40 | CAT 40 | CAT 40 | CAT 40 | CAT 40 | CAT 40 |
| STANDARD SPINDLE SPEED | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM | 10,000 RPM |
| OPTIONAL SPINDLE SPEED | 15,000 RPM | 15,000 RPM | 15,000 RPM | 15,000 RPM | 15,000 RPM | 15,000 RPM |
| STANDARD AC SPINDLE MOTOR | 24/15 HP (18/11 kW) | 24/15 HP (18/11 kW) | 24/15 HP (18/11 kW) DELTA/WYE | 24/15 HP (18/11 kW) INLINE 2 SPEED | 24/15 HP (18/11 kW) INLINE 2 SPEED | 24/15 HP (18/11 kW) INLINE 2 SPEED |
| OPTIONAL AC SPINDLE MOTOR | 35/24 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) DELTA/WYE | 35/25 HP (26/18 kW) INLINE 2 SPEED | 35/25 HP (26/18 kW) INLINE 2 SPEED | 35/25 HP (26/18 kW) INLINE 2 SPEED |
| STANDARD SPINDLE TORQUE | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) | 85 ft-lbs (115 Nm) |
| OPTIONAL SPINDLE TORQUE | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) | 122 ft-lbs (165 Nm) |
| OPTIONAL AUTOMATIC TOOL CHANGER | | | | | | |
| TOOL CAPACITY / TYPE | 24 CAROUSEL | 24 CAROUSEL | 24 CAROUSEL | 24 CAROUSEL | 24 CAROUSEL | 24 CAROUSEL |
| TOOL SHANK | CT40 | CT40 | CT40 | CT40 | CT40 | CT40 |
| MAXIMUM TOOL DIAMETER | 3.5 in (89 mm) | 3.5 in (89 mm) | 3.5 in (89 mm) | 3.5 in (89 mm) | 3.5 in (89 mm) | 3.5 in (89 mm) |
| MAXIMUM TOOL LENGTH | 11 in (280 mm) | 11 in (280 mm) | 11 in (280 mm) | 11 in (280 mm) | 11 in (280 mm) | 11 in (280 mm) |
| MAXIMUM TOOL WEIGHT | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) | 15 lbs (7 kg) |
| FURTHER DETAILS | | | | | | |
| X/Y/Z RAPID TRAVERSE RATE | 1,000 IPM (25.4 m/min) | 1,000 IPM (25.4 m/min) | 750/1,000 IPM (19/25.4 m/min) | 1,000 IPM (25.4 m/min) | 750/1,000 IPM (19/25.4 m/min) | 750/1,000 IPM (19/25.4 m/min) |
| MACHINE HEIGHT | 152 in (3,850 mm) | 152 in (3,850 mm) | 152 in (3,850 mm) | 152 in (3,850 mm) | 153 in (3,890 mm) | 152 in (3,850 mm) |
| FLOOR SPACE REQUIRED (W x D) | 276 x 131 in (7,010 x 3,325 mm) | 315 x 144 in (8,000 x 3,650 mm) | 379 x 144 in (9,635 x 3,650 mm) | 280 x 164 in (7,125 x 4,160 mm) | 380 x 162 in (9,650 x 4,115 mm) | 500 x 167 in (12,700 x 4,242 mm) |
| MACHINE WEIGHT | 13,000 lbs (6,000 kg) | 17,500 lbs (6,400 kg) | 22,000 lbs (9,950 kg) | 19,500 lbs (8,770 kg) | 24,500 lbs (11,030 kg) | 30,000 lbs (13,410 kg) |
| POWER REQUIRED | 40 KVA/100 Amps | 40 KVA/100 Amps | 40 KVA/100 Amps | 40 KVA/100 Amps | 40 KVA/100 Amps | 40 KVA/100 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

SLANT BED LATHES SLII SERIES

The Milltronics SLII Series CNC lathes offer a great combination of features and performance at an attractive price. They are well built, reliable, and easy to use. The SLII Series machines feature robust true slant bed castings, linear motion guide roller ways, direct coupled ballscrews, and the 9000 Series control.

| SPECIFICATIONS | SL6II | SL8II | SL10II |
|---------------------------------|--------------------------------|-------------------------------|-------------------------------|
| CAPACITY | | | |
| X-AXIS TRAVEL | 7 in (178 mm) | 8 in (203 mm) | 9.8 in (250 mm) |
| Z-AXIS TRAVEL | 14 in (356 mm) | 21 in (533 mm) | 31.1 in (790 mm) |
| SWING OVER BED DIAMETER | 15.9 in (405 mm) | 21.7 in (550 mm) | 22.9 in (582 mm) |
| SWING OVER CROSS SLIDE DIAMETER | 9.45 in (240 mm) | 11.8 in (300 mm) | 15.8 in (402 mm) |
| MAXIMUM TURNING DIAMETER | 12.4 in (316 mm) | 14 in (356 mm) | 17.7 in (450 mm) |
| MAXIMUM TURNING LENGTH | 13.4 in (340 mm) | 21 in (533 mm) | 29.9 in (760 mm) |
| SPINDLE | | | |
| SPINDLE NOSE | A2-5 | A2-6 | A2-8 |
| DRAW TUBE DIAMETER | 1.77 in (45 mm) | 2.54 in (64.5 mm) | 3.18 in (81 mm) |
| SPINDLE BORE DIAMETER | 2.2 in (56 mm) | 3.07 in (78 mm) | 3.74 in (95 mm) |
| CHUCK SIZE | 6 in (152 mm) | 8 in (203 mm) | 10 in (254 mm) |
| SPINDLE RANGE | 0-6,000 RPM | 0-4,000 RPM | 0-3,000 RPM |
| AC SPINDLE MOTOR | 17/10 HP (13/7.5 kW) | 22/15 HP (17/11 kW) | 29.5/20 HP (22/15 kW) |
| MAXIMUM SPINDLE TORQUE | 83 ft-lbs (113 Nm) @ 1,090 RPM | 164 ft-lbs (222 Nm) @ 725 RPM | 260 ft-lbs (352 Nm) @ 600 RPM |
| TURRET | | | |
| TOOL CAPACITY | 12 | 12 | 12 |
| TOOL SIZE | .75 x .75 in (19 x 19 mm) | 1 x 1 in (25 x 25 mm) | 1 x 1 in (25 x 25 mm) |
| BORING BAR CAPACITY | 1.25 in (32 mm) | 1.5 in (40 mm) | 1.5 in (40 mm) |
| TOOL SELECTION | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL |
| TAILSTOCK OPTION | | | |
| TAILSTOCK QUILL TRAVEL | 3.46 in (88 mm) | 3.46 in (88 mm) | 4.7 in (119 mm) |
| TAILSTOCK QUILL DIAMETER | 2.28 in (58 mm) | 2.28 in (58 mm) | 3.54 in (90 mm) |
| TAILSTOCK THRUST | 110 lbf (50 kgf) | 110 lbf (50 kgf) | 437 lbf (200 kgf) |
| TAILSTOCK QUILL TAPER | MT4 | MT4 | MT5 |
| MOTION | | | |
| MAXIMUM CUTTING FEED RATE | 400 IPM (10.16 m/min) | 400 IPM (10.16 m/min) | 400 IPM (10.16 m/min) |
| POSITIONING ACCURACY | +/- 0.0002 in (+/- 0.005 mm) | +/- 0.0002 in (+/- 0.005 mm) | +/- 0.0002 in (+/- 0.005 mm) |
| REPEATABILITY | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) |
| AXIS THRUST FORCE X/Z | 1,851 lbf (8.2 kN) | 1,951 lbf (8.7 kN) | 3,125 lbf (13.9 kN) |

| SPECIFICATIONS | SL6II | SL8II | SL10II |
|---|----------------------------------|---------------------------------|-----------------------------------|
| FURTHER DETAILS | | | |
| X/Z RAPID TRAVERSE RATE | 1,181 IPM (30 m/min) | 1,181 IPM (30 m/min) | 1,181 IPM (30 m/min) |
| MACHINE HEIGHT | 84 in (2,130 mm) | 84 in (2,130 mm) | 88.5 in (2,248 mm) |
| MAXIMUM FLOOR SPACE REQUIRED - (W x D) ALL DOORS OPEN PLUS CONVEYOR | 148 x 98.6 in (3,760 x 2,504 mm) | 144 x 104 in (3,658 x 2,651 mm) | 191.4 x 111 in (4,860 x 2,819 mm) |
| MACHINE WEIGHT | 7,054 lbs (3,200 kg) | 8,885 lbs (4,030 kg) | 10,670 lbs (4,840 kg) |
| POWER REQUIRED | 12.5 KVA/33 Amps | 17 KVA/43 Amps | 24 KVA/59 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

STANDARD FEATURES

- 3-jaw hydraulic chuck with foot switch
- 12 position auto turret with 1" slots
- True slant bed with one-piece base casting
- Linear motion guideways with roller type bearings
- Full enclosure with sliding door
- Flood coolant
- Auto lubrication
- Part, wire frame & solid model graphics
- Constant Surface Speed (CSS)
- 120 GB solid-state hard drive
- 15" LCD color touch screen display
- Spindle load meter
- LCD hour meter
- One-year warranty

OPTIONS

- Parts catcher
- Mist collector
- Bar feed interface
- Bi-directional turning cycle
- Automatic tool setter
- Hydraulic tailstock
- Additional spare "M" functions
- Chip conveyor
- Oil skimmer
- Collet chucks
- Digital Setup Assistant
- Milltronics Shop View



COMBINATION LATHES

ML SERIES

Milltronics ML Series combo lathes offer both manual and CNC operations for tool rooms and job shops. They can be configured with many options and other features such as bore sizes and bed lengths - including live tooling and C-axis (on most models).



STANDARD FEATURES

- 12" LCD color display
- Solid model graphic display
- 1 GB program storage memory
- DXF file import
- Networking
- 35 mm linear way technology
- Automatic lubrication
- Spindle load meter
- Flood coolant with enclosure
- Thread chasing feature (most models)
- 500 IPM rapid traverse rate
- LCD hour meter
- One year warranty

OPTIONS

- 10 or 14 in. bore options for ML35 and ML40
- Live tooling option for ML22 and larger lathes
- Lift-up chip conveyor
- Additional tool holders
- Hydraulic quill for tailstock (most models)
- Bi-directional turning cycle
- Pneumatic 5C collet closer (ML16)
- Additional spare "M" functions
- Automatic tool turrets
- Tool posts
- Steady rest
- Follow rest
- Digital Setup Assistant
- Milltronics Shop View

| SPECIFICATIONS | ML16II/40 | ML18II/60 | ML22II/60 | ML26II/40 | ML26II/80 | ML26II/120 | ML26II/160 |
|---------------------------------|-----------------------------------|-----------------------------------|--|--|--|--|--|
| CAPACITY | | | | | | | |
| X/Z TRAVELS | 11/44.5 in (280/1,130 mm) | 12/63.5 in (300/1,600 mm) | 13/63.5 in (330/1,600 mm) | 13/42 in (330/1,066 mm) | 13/84 in (330/2,130 mm) | 13/124 in (330/3,150 mm) | 13/163 in (330/4,140 mm) |
| SWING OVER BED | 17 in (440 mm) | 19 in (480 mm) | 23 in (580 mm) | 27 in (685 mm) | 27 in (685 mm) | 27 in (685 mm) | 27 in (685 mm) |
| SWING OVER GAP | 25.9 in (658 mm) | 27.9 in (710 mm) | 30.3 in (770 mm) | 34.2 in (870 mm) | 34.2 in (870 mm) | 34.2 in (870 mm) | 34.2 in (870 mm) |
| GAP DISTANCE | 12.75 in (320 mm) | 12.75 in (320 mm) | 12.75 in (320 mm) | 12.75 in (320 mm) | 12.75 in (320 mm) | 12.75 in (320 mm) | 12.75 in (320 mm) |
| SWING OVER CROSS SLIDE | 7.48 in (190 mm) | 9.25 in (235 mm) | 12.1 in (310 mm) | 16.1 in (410 mm) | 16.1 in (410 mm) | 16.1 in (410 mm) | 16.1 in (410 mm) |
| SPINDLE | | | | | | | |
| SPINDLE NOSE | A2-5 | D1-6 | A1-8 | A1-8 | A1-11 | A2-11 | A2-11 |
| SPINDLE BORE | 2.05 in (52 mm) | 2.56 in (65 mm) | 3.22 in (82 mm) | 3.22 in (82 mm) | 4.17 in (106 mm) | 6 in (153 mm) | 6 in (153 mm) |
| SPINDLE RANGE | 100-4,000 RPM | 100-2,600 RPM | 40-2,000 RPM | 40-2,000 RPM | 30-1,600 RPM | 30-1,600 RPM | 30-1,600 RPM |
| AC SPINDLE MOTOR | 15/10 HP (11/7.5 kW) | 20/15 HP (15/11 kW) | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE | 24/15 HP (18/11 kW) 2-SPEED DELTA/WYE |
| SPINDLE TORQUE | 108 ft-lbs (147 Nm) | 225 ft-lbs (306 Nm) | 1,050 ft-lbs (1,423 Nm) | 1,050 ft-lbs (1,423 Nm) | 1,250 ft-lbs (1,690 Nm) | 1,250 ft-lbs (1,690 Nm) | 1,250 ft-lbs (1,690 Nm) |
| TAILSTOCK | | | | | | | |
| TAILSTOCK QUILL TRAVEL | 6 in (150 mm) | 6 in (150 mm) | 6 in (150 mm) | 6 in (150 mm) | 6 in (150 mm) | 6 in (150 mm) | 6 in (150 mm) |
| TAILSTOCK QUILL DIAMETER | 2.55 in (65 mm) | 3.15 in (80 mm) | 3.94 in (100 mm) | 3.94 in (100 mm) | 3.94 in (100 mm) | 3.94 in (100 mm) | 3.94 in (100 mm) |
| TAILSTOCK QUILL TAPER | MT4 | MT5 | MT5 | MT5 | MT5 | MT5 | MT5 |
| AUTOMATIC TURRET | | | | | | | |
| TOOL CAPACITY | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| TOOLING SIZE | .75 in (20 mm) | .75 in (20 mm) | 1 in (25 mm) | 1 in (25 mm) | 1 in (25 mm) | 1 in (25 mm) | 1 in (25 mm) |
| BORING BAR CAPACITY | 1.25 in (32 mm) | 1.25 in (32 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) |
| TOOL SELECTION | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL |
| FURTHER DETAILS | | | | | | | |
| X/Z RAPID TRAVERSE RATE | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) |
| MAXIMUM CUTTING FEED RATE | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) |
| POSITIONING ACCURACY | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) |
| REPEATABILITY | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) | 0.0002 in (0.005 mm) |
| AXIS THRUST FORCE X/Z | 1,500 lbs (680 kg) | 1,500 lbs (680 kg) | 2,300 lbs (1,040 kg) | 4,000 lbs (1,815 kg) | 4,000 lbs (1,815 kg) | 4,000 lbs (1,815 kg) | 4,000 lbs (1,815 kg) |
| MACHINE HEIGHT | 80 in (2,032 mm) | 80 in (2,032 mm) | 83 in (2,108 mm) | 83 in (2,108 mm) | 83 in (2,108 mm) | 83 in (2,108 mm) | 83 in (2,108 mm) |
| FLOOR SPACE REQUIRED (W x D) | 120 x 83 in (3,050 x 2,108 mm) | 138 x 83 in (3,510 x 2,108 mm) | 143 x 83 in (3,630 x 2,108 mm) | 126 x 84 in (3,200 x 2,133 mm) | 166 x 84 in (4,216 x 2,133 mm) | 206 x 84 in (5,235 x 2,133 mm) | 246 x 84 in (6,250 x 2,133 mm) |
| MACHINE WEIGHT | 6,000 lbs (2,730 kg) | 8,500 lbs (3,850 kg) | 10,000 lbs (4,500 kg) | 9,500 lbs (4,300 kg) | 11,500 lbs (5,200 kg) | 13,200 lbs (6,000 kg) | 17,000 lbs (7,800 kg) |
| POWER REQUIRED | 19 KVA/40 Amps | 23 KVA/58 Amps | 30 KVA/80 Amps | 30 KVA/80 Amps | 30 KVA/80 Amps | 30 KVA/80 Amps | 30 KVA/80 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

| SPECIFICATIONS | ML35II/80 | ML35II/120 | ML35II/160 | ML35II/200 | ML35II/240 |
|---------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| CAPACITY | | | | | |
| X/Z TRAVELS | 19/87 in (480/2,210 mm) | 19/120 in (480/3,000 mm) | 19/160 in (480/4,000 mm) | 19/200 in (480/5,000 mm) | 19/240 in (480/6,000 mm) |
| SWING OVER BED | 36.2 in (920 mm) | 36.2 in (920 mm) | 36.2 in (920 mm) | 36.2 in (920 mm) | 36.2 in (920 mm) |
| SWING OVER GAP | 45 in (1,150 mm) | 45 in (1,150 mm) | 45 in (1,150 mm) | 45 in (1,150 mm) | 45 in (1,150 mm) |
| GAP DISTANCE | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) |
| SWING OVER CROSS SLIDE | 21.6 in (550 mm) | 21.6 in (550 mm) | 21.6 in (550 mm) | 21.6 in (550 mm) | 21.6 in (550 mm) |
| SPINDLE | | | | | |
| SPINDLE NOSE | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 |
| SPINDLE BORE | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) |
| SPINDLE RANGE | 10-900 RPM | 10-900 RPM | 10-900 RPM | 10-900 RPM | 10-900 RPM |
| AC SPINDLE MOTOR | 35/25 HP (26/18 kW) 2-SPEED | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) |
| SPINDLE TORQUE | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) |
| TAILSTOCK | | | | | |
| TAILSTOCK QUILL TRAVEL | 8 in (200 mm) | 8 in (200 mm) | 8 in (200 mm) | 8 in (200 mm) | 8 in (200 mm) |
| TAILSTOCK QUILL DIAMETER | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) |
| TAILSTOCK QUILL TAPER | MT6 | MT6 | MT6 | MT6 | MT6 |
| AUTOMATIC TURRET | | | | | |
| NUMBER OF TOOLS | 8 | 8 | 8 | 8 | 8 |
| TOOLING SIZE | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) |
| BORING BAR CAPACITY | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) |
| TOOL SELECTION | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL |
| FURTHER DETAILS | | | | | |
| X/Z RAPID TRAVERSE RATE | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) |
| MAXIMUM CUTTING FEED RATE | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) |
| POSITIONING ACCURACY | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) |
| REPEATABILITY | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) |
| AXIS THRUST FORCE X/Z | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) |
| MACHINE HEIGHT | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) |
| FLOOR SPACE REQUIRED (W x D) | 193 x 110 in (4,902 x 2,794 mm) | 232 x 110 in (5,893 x 2,794 mm) | 272 x 110 in (6,909 x 2,794 mm) | 311 x 110 in (7,900 x 2,794 mm) | 350 x 110 in (8,890 x 2,794 mm) |
| MACHINE WEIGHT | 23,000 lbs (10,500 kg) | 25,200 lbs (11,500 kg) | 27,400 lbs (12,500 kg) | 29,600 lbs (13,500 kg) | 31,800 lbs (14,424 kg) |
| POWER REQUIRED | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

| SPECIFICATIONS | ML40II/80 | ML40II/120 | ML40II/160 | ML40II/200 | ML40II/240 |
|---------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| CAPACITY | | | | | |
| X/Z TRAVELS | 21/87 in (550/2,210 mm) | 21/120 in (550/3,000 mm) | 21/160 in (550/4,000 mm) | 21/200 in (550/5,000 mm) | 21/240 in (550/6,000 mm) |
| SWING OVER BED | 39.7 in (1,010 mm) | 39.7 in (1,010 mm) | 39.7 in (1,010 mm) | 39.7 in (1,010 mm) | 39.7 in (1,010 mm) |
| SWING OVER GAP | 50 in (1,280 mm) | 50 in (1,280 mm) | 50 in (1,280 mm) | 50 in (1,280 mm) | 50 in (1,280 mm) |
| GAP DISTANCE | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) | 14.6 in (370 mm) |
| SWING OVER CROSS SLIDE | 26.6 in (675 mm) | 26.6 in (675 mm) | 26.6 in (675 mm) | 26.6 in (675 mm) | 26.6 in (675 mm) |
| SPINDLE | | | | | |
| SPINDLE NOSE | A2-11 | A2-11 | A2-11 | A2-11 | A2-11 |
| SPINDLE BORE | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) | 6.02 in (153 mm) |
| SPINDLE RANGE | 10-900 RPM | 10-900 RPM | 10-900 RPM | 10-900 RPM | 10-900 RPM |
| AC SPINDLE MOTOR | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) | 35/25 HP (26/18 kW) |
| SPINDLE TORQUE | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) | 1,850 ft-lbs (2,500 Nm) |
| TAILSTOCK | | | | | |
| TAILSTOCK QUILL TRAVEL | 9 in (230 mm) | 9 in (230 mm) | 9 in (230 mm) | 9 in (230 mm) | 9 in (230 mm) |
| TAILSTOCK QUILL DIAMETER | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) | 4.92 in (125 mm) |
| TAILSTOCK QUILL TAPER | MT6 | MT6 | MT6 | MT6 | MT6 |
| AUTOMATIC TURRET | | | | | |
| NUMBER OF TOOLS | 8 | 8 | 8 | 8 | 8 |
| TOOLING SIZE | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) | 1.5 in (38 mm) |
| BORING BAR CAPACITY | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) | 2 in (50 mm) |
| TOOL SELECTION | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL | BI-DIRECTIONAL |
| FURTHER DETAILS | | | | | |
| X/Z RAPID TRAVERSE RATE | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) | 500 IPM (12.7 m/min) |
| MAXIMUM CUTTING FEED RATE | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) | 100 IPM (2,540 mm/min) |
| POSITIONING ACCURACY | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) | +/- 0.00025 in (+/- 0.0063 mm) |
| REPEATABILITY | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) | 0.00039 in (0.010 mm) |
| AXIS THRUST FORCE X/Z | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) | 6,700 lbs (3,000 kg) |
| MACHINE HEIGHT | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) | 90 in (2,286 mm) |
| FLOOR SPACE REQUIRED (W x D) | 193 x 110 in (4,902 x 2,794 mm) | 232 x 110 in (5,893 x 2,794 mm) | 272 x 110 in (6,909 x 2,794 mm) | 311 x 110 in (7,900 x 2,794 mm) | 350 x 110 in (8,890 x 2,794 mm) |
| MACHINE WEIGHT | 24,500 lbs (11,000 kg) | 26,700 lbs (12,000 kg) | 28,900 lbs (13,000 kg) | 31,100 lbs (14,000 kg) | 33,300 lbs (15,000 kg) |
| POWER REQUIRED | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps | 48 KVA/125 Amps |
| VOLTAGE REQUIRED | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase | 208-240 Volts/ 3 Phase |

9000 SERIES CONTROL

THE NEW STANDARD

At Milltronics we are constantly refining our controls to simplify operation, shorten setup times, and provide features that reduce cycle times. The 9000 Series control features 120 GB disk storage, 4GB memory, up to 10-times better graphic performance, mid-travel tactile keys, and an enlarged 15" LCD touch screen. It's a Windows®-based platform and offers all the user-friendly features that Milltronics CNC controls are known for, such as the G-code visualization screen.

INTUITIVE

With its conversational programming, on screen help, intuitive menus, color graphics, and prompted tool settings, the 9000 CNC helps new operators get up to speed quickly. The 9000 CNC makes it the one machine in the shop that everyone wants to operate.

EFFICIENT

The 9000 CNC is packed with features that allow quick and confident operation of the CNC:

- **Solid model graphics allow the operator to see a completed part prior to cutting.**
- **Mid program restart allows the operator to start anywhere in a program by verifying the graphics and then switching to Run Mode. It's simple - no need for G&M code expertise!**
- **Handwheel run allows the operator to run a program in a controlled mode where motion only occurs while the handwheel is turning. This feature allows operators to verify programs with total control and complete confidence.**

- **The 9000 CNC features a dual-core processor and high speed motion control that is capable of executing 3,000 blocks per second. Execute the most demanding programs in the shortest time.**
- **The 9000 CNC is equipped with a 120 GB solid state drive, 4 GB RAM memory, USB ports and Ethernet connectivity.**

PRODUCTIVE

The 9000 CNC allows operators to run parts programmed conversationally or toolpaths generated by a CAM system. Coupled with a super-fast motion control system, feature packed CNC, and interface designed to expedite setup and operation, the 9000 CNC is the solution to helping your operator make parts faster and better.

9000 SERIES CONTROL SPECIFICATIONS

ESSENTIALS

| | |
|-----------------|-----------------------|
| PROCESSOR | INTEL® CORE I5-3610ME |
| INSTRUCTION SET | 64-BIT |

PERFORMANCE

| | |
|--------------------------|---------|
| NUMBER OF CORES | 2 |
| PROCESSOR BASE FREQUENCY | 2.7 GHZ |
| MAX TURBO FREQUENCY | 3.3 GHZ |

MEMORY SPECIFICATIONS

| | |
|-------------------------|--------|
| DATA STORAGE | 120 GB |
| SYSTEM MEMORY INSTALLED | 4 GB |

GRAPHICS SPECIFICATIONS

| | |
|----------------|---------|
| GPU CORE SPEED | 600MHZ |
| MEMORY | 1024 MB |

OPERATING SYSTEM

| | |
|---------------------|---------------------|
| PRIMARY OS | WINDOWS® EMBEDDED 7 |
| REAL TIME EXTENSION | INTERVALZERO RTX |

The Milltronics 9000 CNC control is Windows® based and features a 15" color LCD touch screen.



DISPLAY

| | |
|----------------|------------|
| SIZE | 15" |
| RESOLUTION | 1024 X 768 |
| BACKLIGHT TYPE | LED |
| TOUCHSCREEN | RESISTIVE |

OPERATOR PANEL

| | |
|---------------|--------------------------------------|
| KEYPAD TYPE | ABS MID-TRAVEL WITH TACTILE FEEDBACK |
| DATA TRANSFER | USB PORTS AND ETHERNET CONNECTIVITY |

PROGRAMMING FEATURES

TRIG HELP FEATURES

- Arc and Line Intersection Find
- Tangent Line and Arc Functions
- 3 Point Arc Generation
- Line Extend Back
- Cartesian and Polar Coordinates
- Corner Chamfering and Rounding

SINGLE PAGE AUTO-ROUTINES

- Bolt Pattern, Drill, Tap and Bore Cycles
- Text Engraving on Arc or Line
- Thread Milling Cycle
- Circular Framing Cycle
- Rectangular Framing Cycle
- Polygon Framing Cycle
- Circular Pocket Cycle
- Rectangular Pocket Cycle
- Polygon Pocket Cycle
- Slot Cycle
- Facing Cycle

CANNED CYCLES

- Milling Cycles
- Drill, Tap and Bore Cycles
- Custom Drill Cycle
- Rotary Axis Cylindrical Mapping
- 3D Sweep Routine
- Irregular Pocket Clear with Islands

CONVERSATIONAL PROGRAMMING

- DXF and IGES File Import
- Math Function Input Fields
- Macro Variable Programming
- Custom Conversational Screens
- Speed and Feed Calculator
- Prompting Help Screens

G&M CODE PROGRAMMING

- Macro Programming
- MDI
- EIA / ISO Code (Fanuc™) Compatibility

PROGRAMMING FEATURES

- Concurrent Programming
- Cutter Compensation
- Inch / Metric
- Mirror, Scale and Rotate
- Dwell
- Subprogram Call, Looping and Nesting
- Tapered and Round Walls
- Engraving with Serializing

RUN AND VERIFY FEATURES

- Handwheel Run
- Dry Run
- Block Skip, Optional Stop, Programmable Stop and Single Block
- Multiple Mid Program Start Options
- Mill Away / Jog Away
- Program Halt and Resume
- Tool Load Monitoring
- Tool Breakage Detection with Optional Tool Setter
- Estimated Cycle Time
- 10%, 100% and Variable Rapid Override Select
- Spindle Load Meter
- Fine Tune Feed and Spindle Override
- Machine Status Light
- Programmable Air, Mist and Coolant

SET-UP FEATURES

- Automatic Tool Setting Program
- Single Button Tool / Fixture Offset Entry
- 60 Work Coordinates
- Continuous and Incremental Axis Jog
- Electronic Handwheel(s)
- Optional Probe and Tool Setter
- 199 Tool Diameter Length and Wear Offsets
- DRO Measure
- Safe Zone
- Hot Keys

CONTROL FEATURES

- Optional Four and Five Axis Simultaneous
- 3,000 Blocks / Second High Speed Processor
- Absolute / Incremental
- 120 GB Solid State Hard Drive
- 4 GB Ram Memory
- 500 MB Text Editing with Cut, Copy, Move, Search and Replace
- Ball Screw Pitch Error Correction
- True S Curve Acceleration and Jerk Correction
- Feed Forward Error Correction
- Full Language Error Messages
- Backlash Compensation
- Linear, Circular, Helical and Interpolation
- Feed Per Rev, Minute, Inverse Time
- Custom I/O Screens
- Surface Finish Selection (SFS)
- Aux Keyboard Port

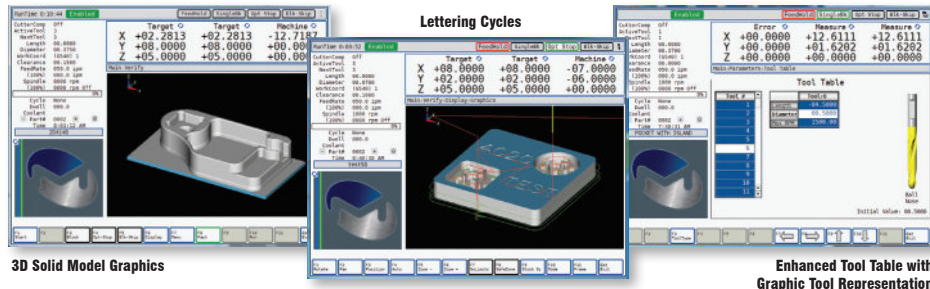
- Networking
- Calculator
- Service Diagnostics
- Parts Counter
- Program / Parameter (Edit Key)
- Remote Diagnostics
- Rigid Tapping
- Selectable Corner Accuracy
- Selectable Languages
- Handwheel Scroll through Menus
- 15" Color LCD Touch Screen Display
- Automatic Homing
- Two USB Ports
- Hour Meter

EDIT FEATURES

- Background Editing
- Cut, Copy, Paste and Move Editing
- Handwheel through Text
- Overwrite and Insert
- Global Find and Replace
- Printout a Program (Fastcam)

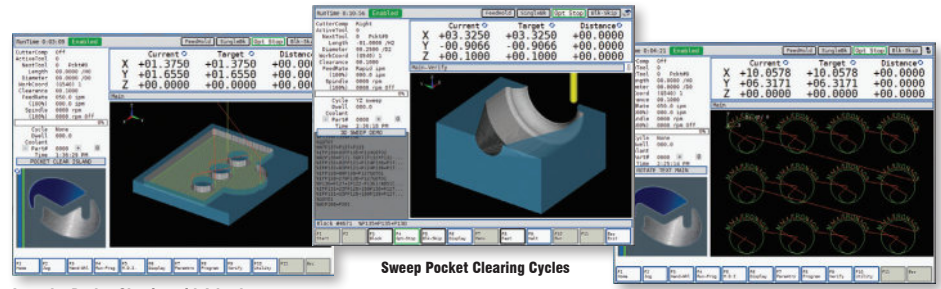
DISPLAY FEATURES

- 3D Part and Wire Frame Tool Path Graphics
- Color Graphics — Tool Path and Part Profile
- Solid Model Graphics
- Wireframe over Solids
- Transparent Graphics
- Customizable DRO
- User Definable Image Display Window
- User Selectable Graphics in all Planes



3D Solid Model Graphics

Enhanced Tool Table with Graphic Tool Representation



Irregular Pocket Clearing with Islands

Sweep Pocket Clearing Cycles

Sub-Program Loops for Pattern Repeat Cycles

SUPERIOR DESIGN & QUALITY COMPONENTS

Milltronics partners with world-class suppliers for critical components used in the design and manufacture of our CNC machines.

SL6II FRAME



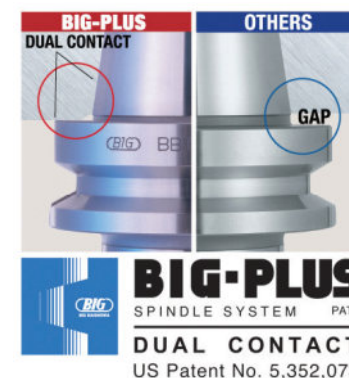
Rigid true slant bed casting, direct coupled ballscrews, with roller style linear guides.

VM5025XP FRAME



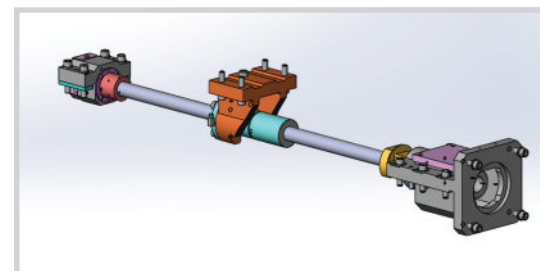
Oversized and widely spaced linear cross roller ways for rigidity and accuracy—provide 40% more rigidity than standard ball ways

- Milltronics uses a design process that is ISO 9001 certified to make rigid and reliable machines built to last.
- Heavily ribbed and supported fine grain cast iron optimized with Finite Element Analysis (FEA) provides superior dampening characteristics and added rigidity for heavy machining applications.
- Machines are designed with rapid traverse rates and high feeds to minimize cycle times and increase productivity.
- Variety of efficiency enhancing options such as thermal head mapping, linear glass scales, coolant-through-spindle, spindle chillers, rotary tables, bar feeders, and automation solutions are available.



VM/VM-IL MODELS FEATURE BIG-PLUS®

BIG-PLUS® greatly improves rigidity by simultaneous fit of taper and face—better heavy or high speed cutting, deep or large diameter boring—also longer tool life.



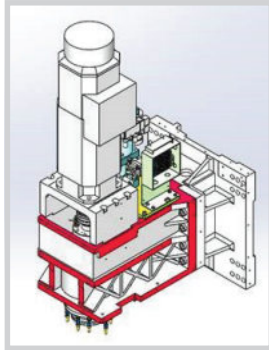
Direct coupled ballscrews.

BALLSCREWS

The VM/VM-IL/VM-XP Series of machines feature direct coupled Hiwin® premium grade double-nut pre-loaded ballscrews, anchored at both ends as well as Hiwin® linear motion guides. The double-nut ballscrews apply pressure in opposite directions to the ballscrew which keeps the nut under tension and prevents backlash. The ballscrews are also pre-tensioned, providing greater rigidity and help to negate the effects of thermal growth.

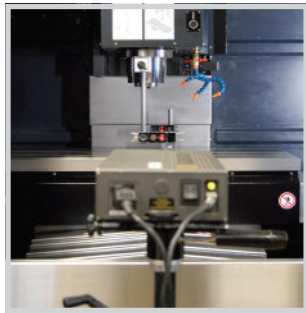
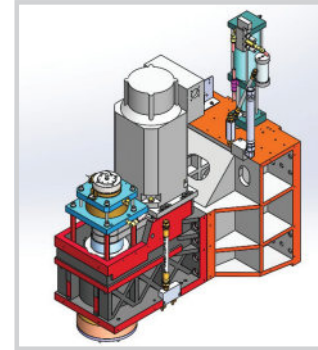
VMIL SPINDLE TRANSMISSION

Belts are eliminated with spindle and motor directly inline. This delivers higher performance in acceleration, reduced vibration for better part finish, and quieter operation.



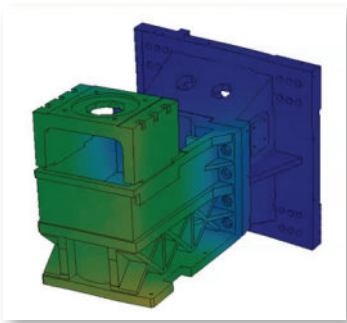
VM5025XP AND VM6030XP SPINDLE

The VM5025XP and VM6030XP from Milltronics use a heavy-duty belt drive with a dual wound spindle motor for power and flexibility.



LASER INTERFEROMETER

After assembly, Milltronics machines are tested, including the use of a laser interferometer. The laser interferometer provides comprehensive accuracy assessment of machine alignment and any roll-pitch-yaw errors in machine.



FINITE ELEMENT ANALYSIS

Finite Element Analysis (FEA) is used to evaluate structural rigidity, torsional stiffness, thermal characteristics and natural frequency to achieve the best frame design. This is critical with today's high velocities and accelerations – machine performance must be carefully optimized in order to maintain part quality.

SWING ARM ATC

Milltronics uses electric swing arm automatic tool changers on the VM/VM-IL/VM-XP Series. All arm movements are driven from a single cam ensuring reliable and smooth movements that never need adjustment.



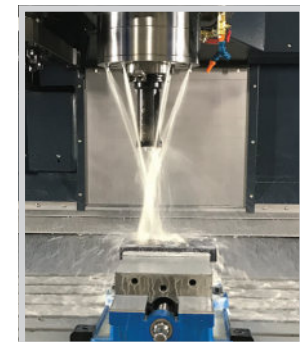
ITX TECHNOLOGY

The modular design of the ITX rack provides highly reliable CNC operation as it uses fewer parts and features reduced connections. The CPU module uses less power and runs cooler for dependable operation.



CHIP MANAGEMENT

Milltronics machines are available with numerous coolant and chip removal options. Depending on model, coolant through the spindle, air through the spindle, programmable air blast and spray mist are available. Chip removal options include chip augers, chip conveyors and coolant washdown.



SERVOS AND DRIVES

Milltronics uses state-of-the-art premium servos and drives from Yaskawa* the world's largest manufacturer of motors and drives. Some of the features of the Yaskawa drives include:

- Yaskawa Sigma V digital drives .625 millisecond velocity loop frequency response time (1.6 kHz)
- Encoders: 1,048,576 pulses per revolution
- Enhanced vibration suppression delivers 5G resistance
- Faster speed acceleration and deceleration

* The IL Series feature Mitsubishi motors and drives.



MILLTRONICS USA®

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Specifications subject to change without notice. Optimum machine performance is dependent upon installation conditions at the facility. Some machines shown with options.

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