HURCO®



MACHINING CENTERS TECHNICAL CATALOG / 5-AXIS

A CONTROL FOR EVERY GENERATION.

HURCO® PRODUCT LINE-UP

5-AXIS MACHINING CENTERS


VC500i


VCX600i


VM10Ui / VM10UHSi


VMX30Ui


VMX30UHSi

VERTICAL MACHINING CENTERS


HTM30i

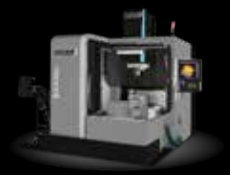

VM5i / VM10i / VM10HSi

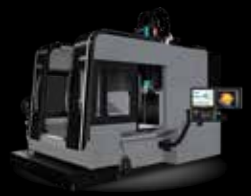

VM20i / VM30i

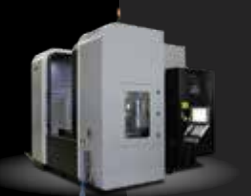

VMX24i / VMX24Di / VMX30i / VMX30Di

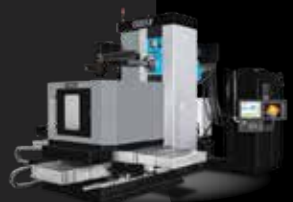

VMX42i / VMX42Di

DOUBLE COLUMN & HORIZONTAL


BX40Ui


BX40i / BX50i / BX60i


HM1700i / HM1700Ri


HBMX55i / HBMX80i

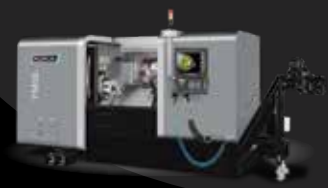

HBMX95-5i

TURNING CENTERS


HTL8-60i

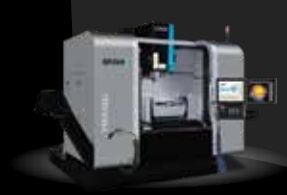

TM6i

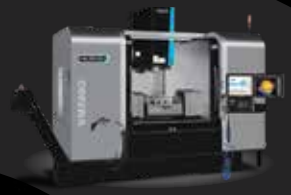

TM8i / TM10i


TM12i


TM18i

For over 50 years, Hurco has been empowering machinists of every generation with cutting-edge control technology that's easy to learn and easy to use. See which one of our 65+ models of CNC machines is right for you—rigid and reliable CNC machines equipped with the control that makes shops more productive and more profitable.


VMX42Ui / VMX42UHSi


VMX60Ui


VTXUi


VMX42SRTi / VMX42HSRTi


VMX60SRTi


VMX42SWi / VMX60SWi


VMX84SWi

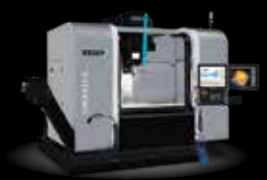

VMX50i / VMX50i-50T

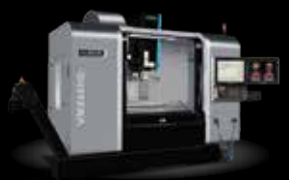

VMX6030i / VMX6030i-50T


VMX64i / VMX64i-50T / VMX84i / VMX84i-50T

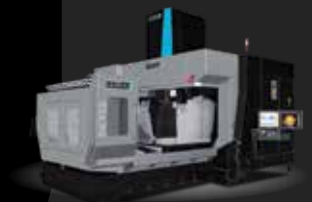

VM10HSi


VMX24HSi / VMX30HSi


VMX42HSi


VMX60HSi


HBMX120i


DCX22i / DCX22i-50T


DCX32-5Si / DCX32-5CSi


DCX32i / DCX3226ii


DCX42i


TM18Li / TM18LBBi


TMX8i /TMX10i


TMX8MYi / TMX10MYi


TMX8MYSi / TMX10MYSi

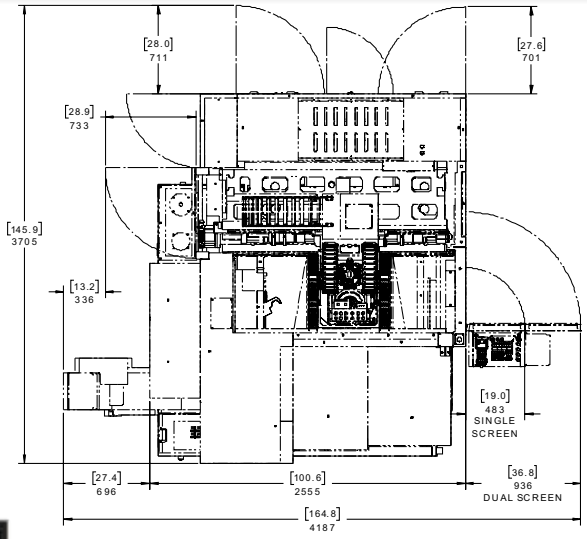

TMM8i

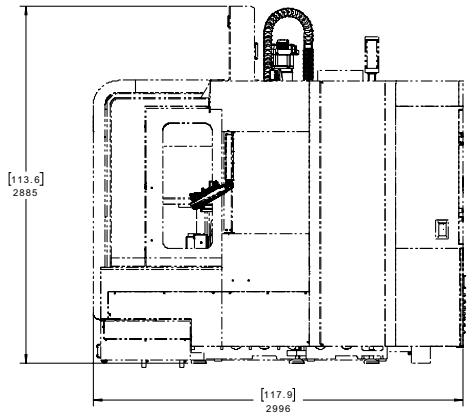

TMM10i / TMM12i

BX40Ui

High speed double column 5-axis machine.







Machine Overview

- Extremely rigid and thermally stable double-column design
- Ladder design of bridge provides maximum support to the head casting
- Close proximity of spindle to bridge casting reduces overhang
- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +110° / -110° B-axis motion delivers better undercut capability
- Direct drive ballscrews
- High speed tool changer
- Integral motorized spindle equipped with ABEC-7 ceramic hybrid bearings
- 37.4" x 21.6" x 19.7" travels
- 18,000 RPM HSK 63 spindle
- Fast 1,417 ipm Rapid Traverse Rates (X, Y, Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 30-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Machine specifications can be found on Pages 46-49

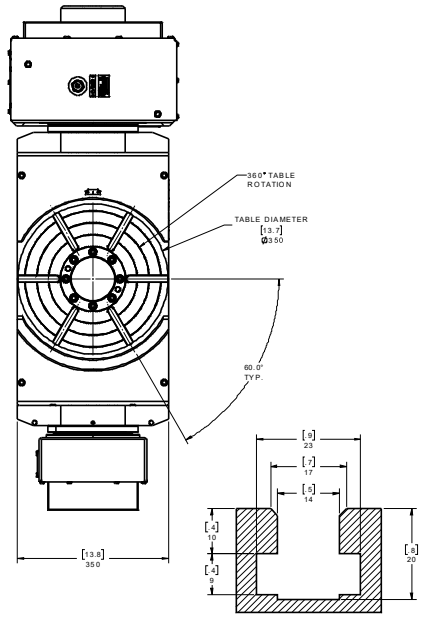
Did you know? All Hurco 5-Axis machines are equipped with UltiMotion technology (invented by Hurco), which simultaneously reduces cycle time (by up to 30% or more) and improves surface finish quality. Exclusive motion control only available from Hurco.
To learn more, visit Hurco.com/UltiMotion.

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY BX40Ui

OPERATING DIMENSIONS



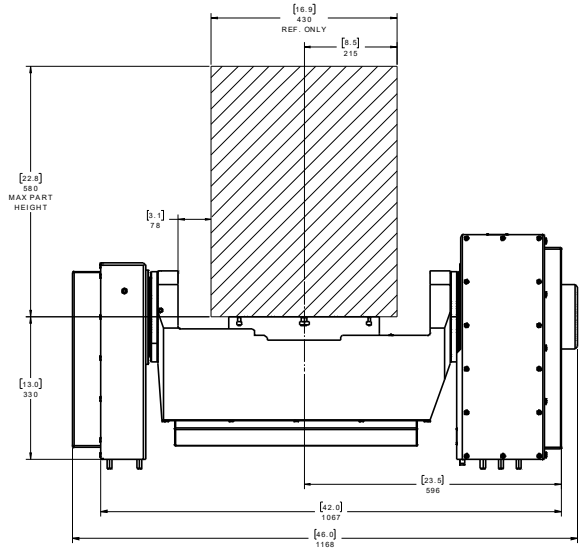
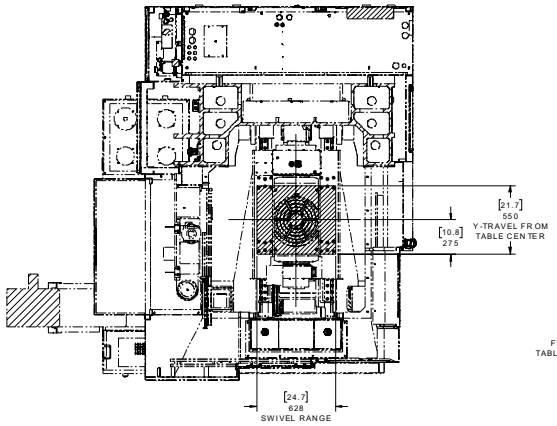
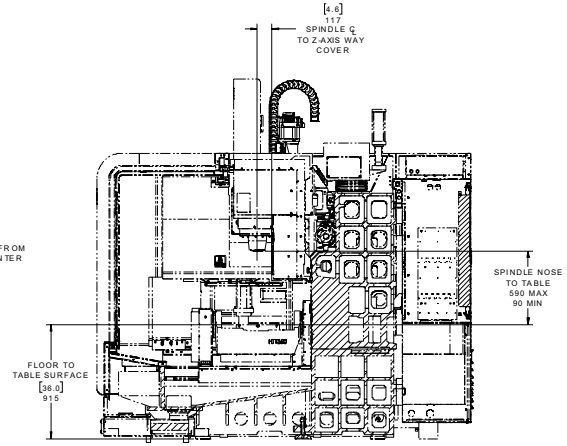


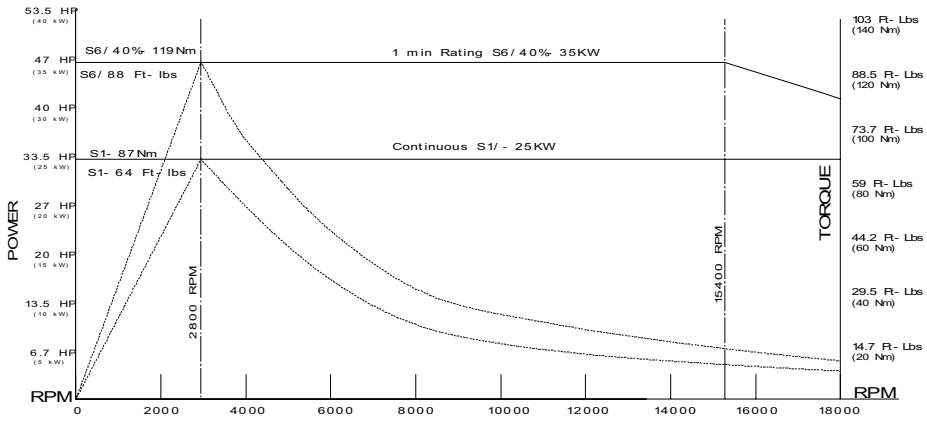
TABLE SPECIFICATIONS

INTERIOR CLEARANCES





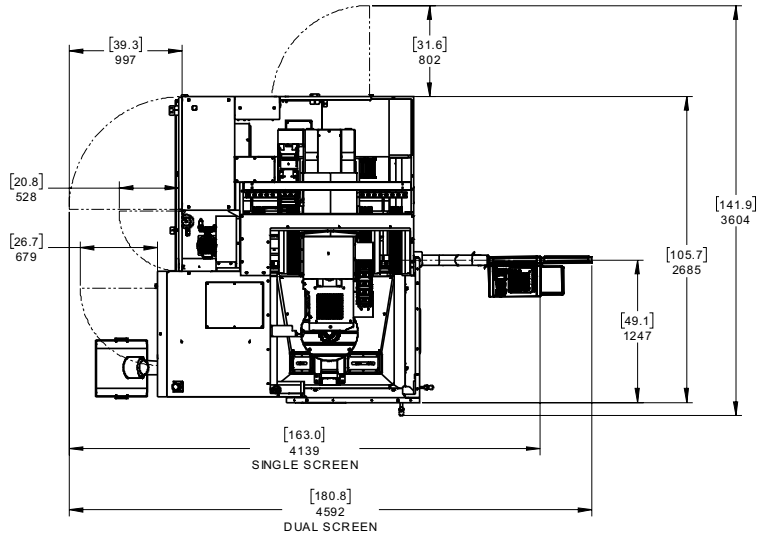
POWER & TORQUE

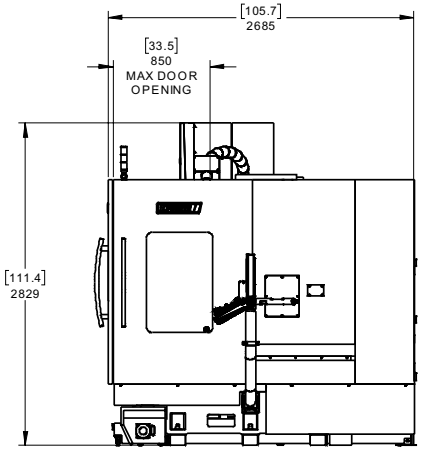


VC500i

5-axis cantilever design supports a wide range of parts.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +110° / -110° B-axis motion delivers better undercut capability
- 20.5" x 17.7" x 15.8" travels
- 12,000 RPM spindle motor
- Fast 945 ipm Rapid Traverse Rates (X, Y, Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 30-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with 19" LCD screen
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Hurco engineers have invented 3D Import, which includes 3D DXF technology that displays all geometry that the CAD system outputs, including splines. With 3D DXF, simply select the bottom of a contour, and the Z-axis depths will also be automatically input into the conversational block. **Visit Hurco.com/3DImport to learn more.**

Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VC500i

OPERATING DIMENSIONS

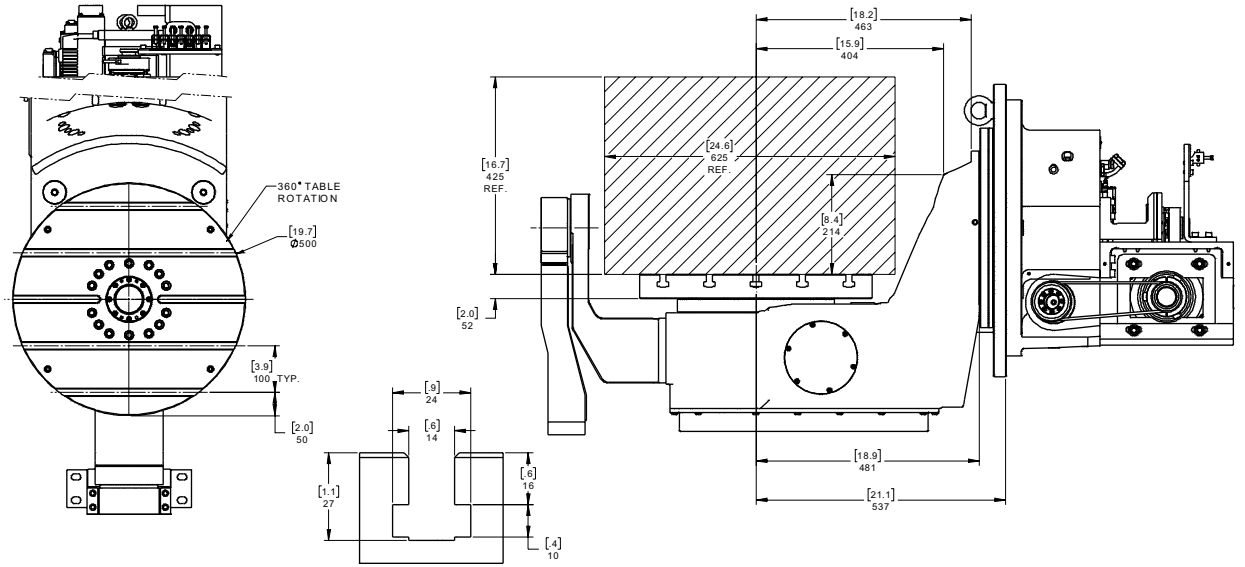
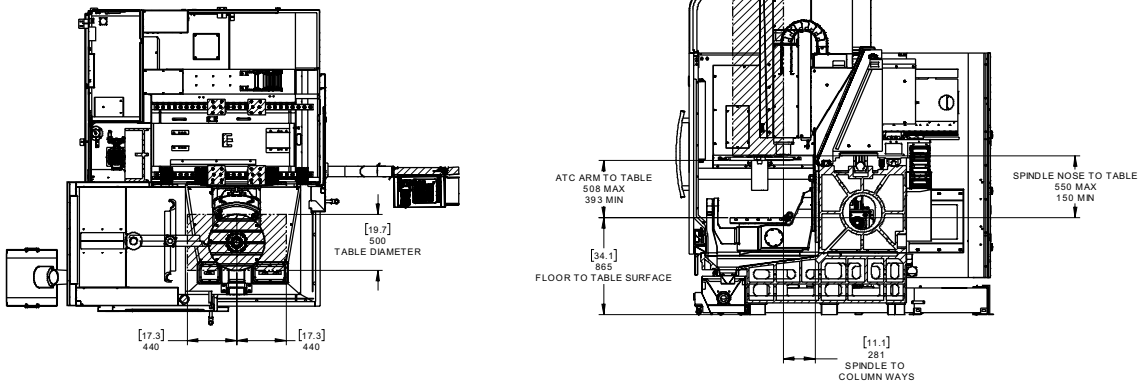
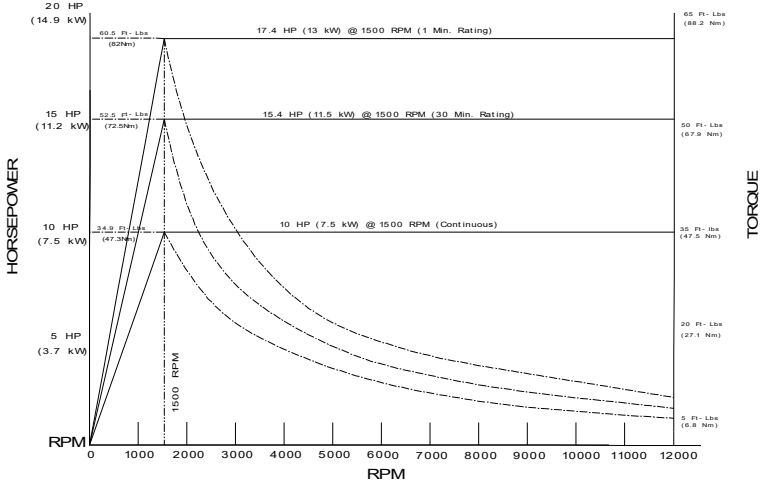


TABLE SPECIFICATIONS

INTERIOR CLEARANCES

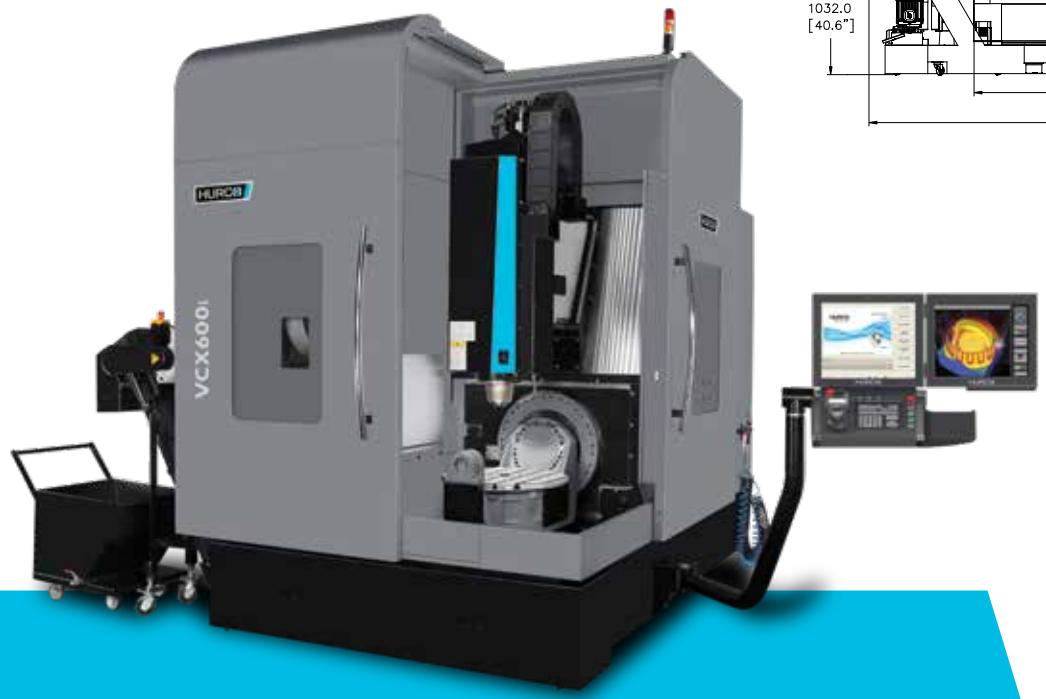


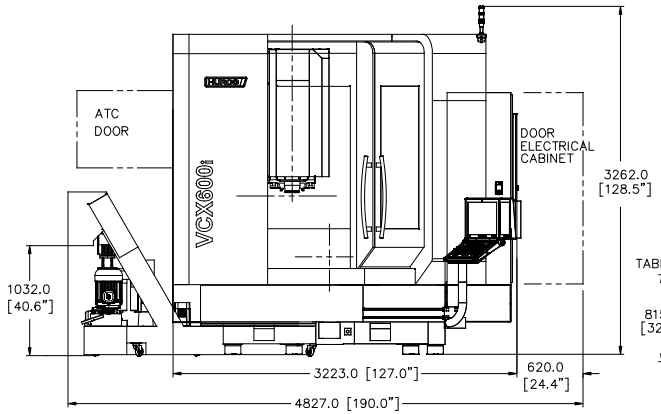
POWER & TORQUE

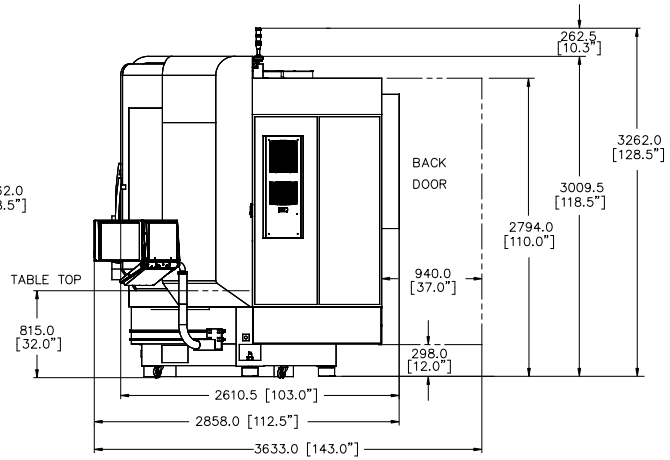


VCX600i

5-axis cantilever machine for large parts.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +110° / -110° B-axis motion delivers better undercut capability
- 24" x 20.5" x 19" travels
- 12,000 RPM dual-wound spindle motor
- Fast 1,417 ipm Rapid Traverse Rates (X, Y, Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? The 3D Import feature on the Hurco control creates Transform Planes automatically for easy 5-sided conversational programming. No need to enter feature dimensions—simply click and cut. Plus, integrated CAD/CAM and tool path simulation.
Find out more at Hurco.com/3DImport.

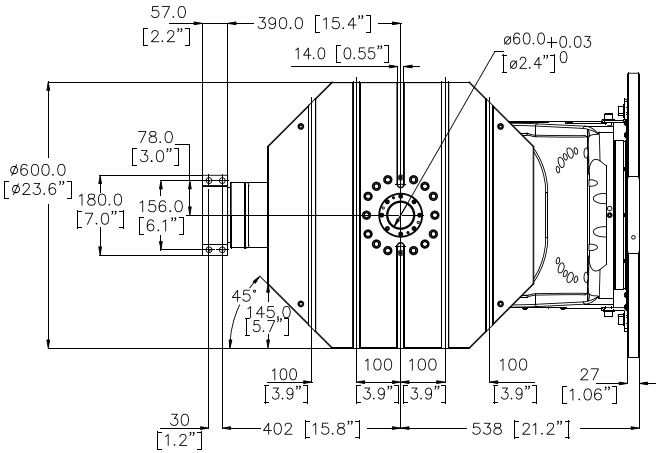
Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VCX600i

OPERATING DIMENSIONS



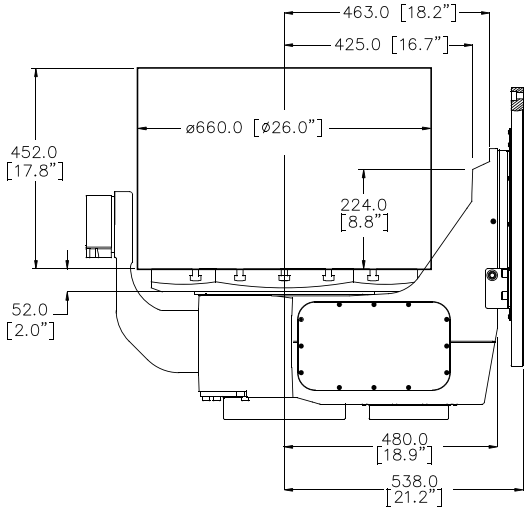
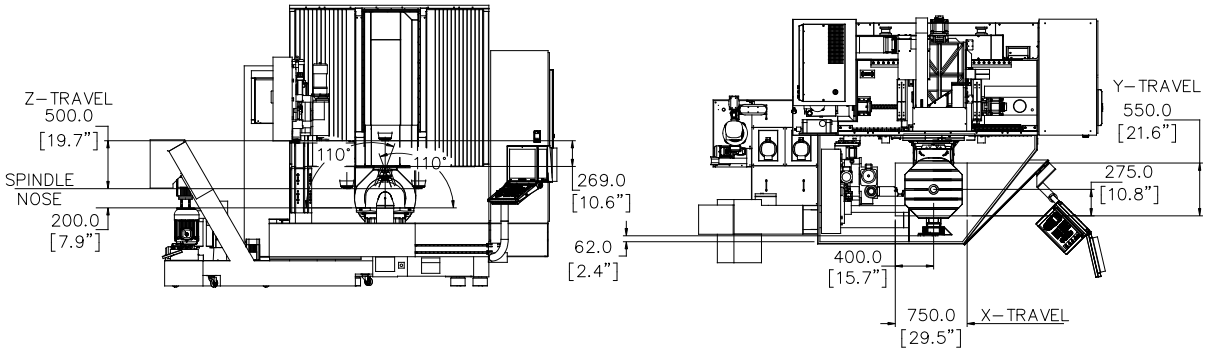
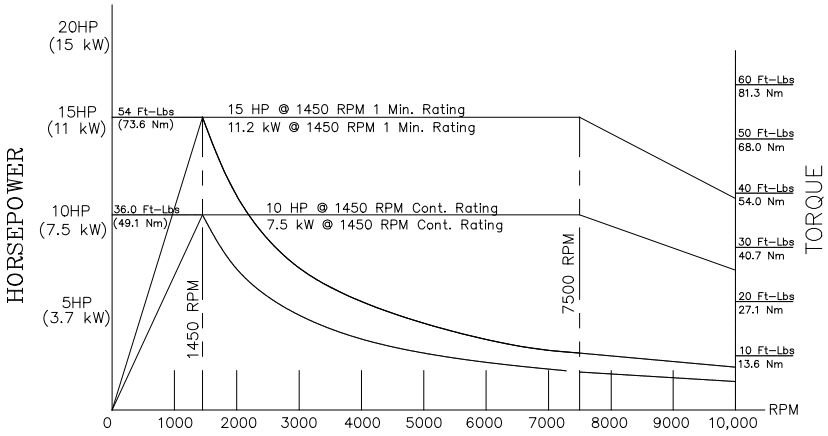


TABLE SPECIFICATIONS

INTERIOR CLEARANCES



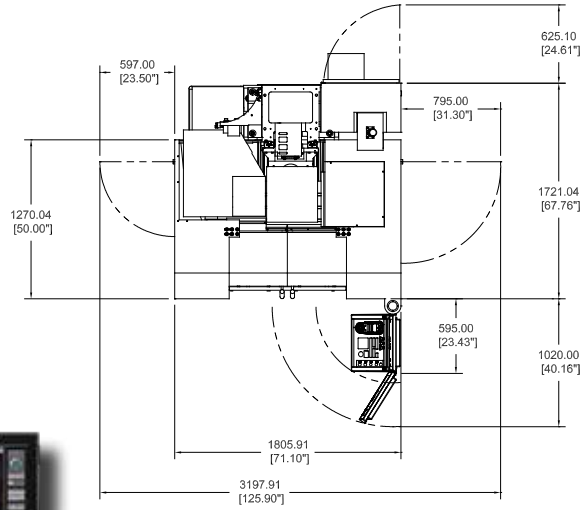
POWER & TORQUE

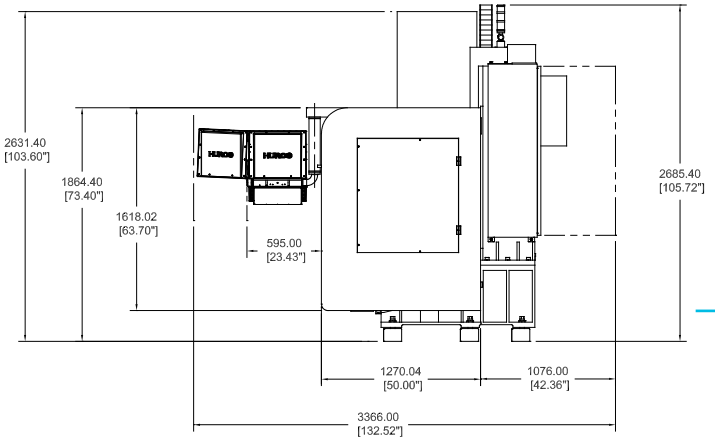


VM10Ui

Small footprint. Big work cube.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30° / -110° A-axis motion delivers better undercut capability
- 21" x 16" x 19" travels.
- 12,000 RPM spindle motor
- Spindle thermal chiller
- Fast 945 ipm Rapid Traverse Rates (X, Y, Z)
- Larger linear rails: wedge locked and mounted to a machined shoulder for increased rigidity
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 20-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with 19" LCD screen
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Hurco's Tool Center Point Management eliminates the need to account for the machining center's centerlines of rotation. Instead, you simply use the solid model zero location. Post the program independent of where the stock is fixtured on the table. **Find out more at Hurco.com/5Axis.**

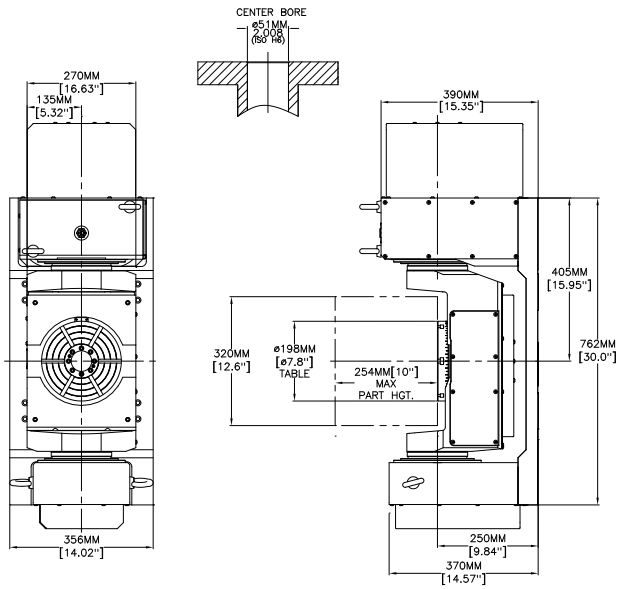
Machine specifications can be found on Pages 46-49

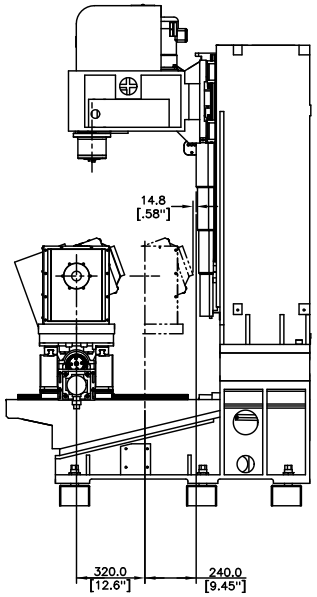
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VM10Ui

OPERATING DIMENSIONS





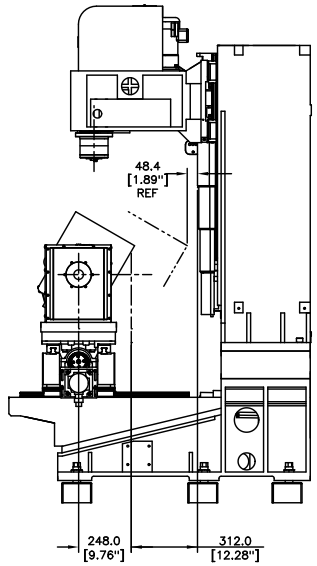
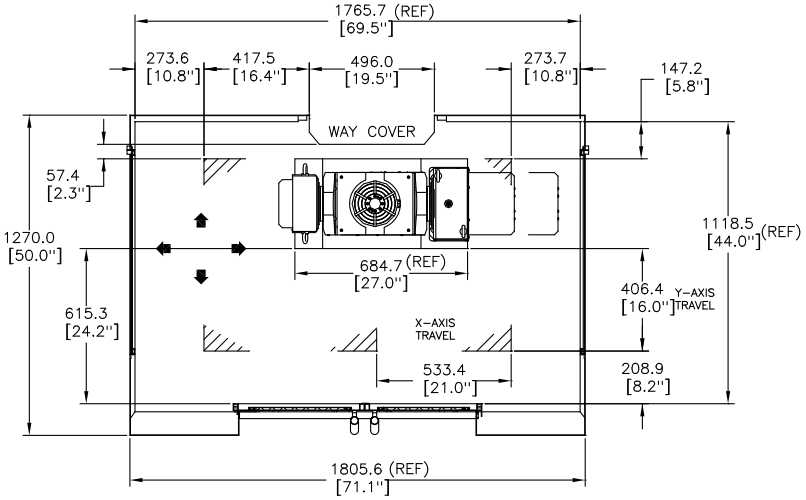


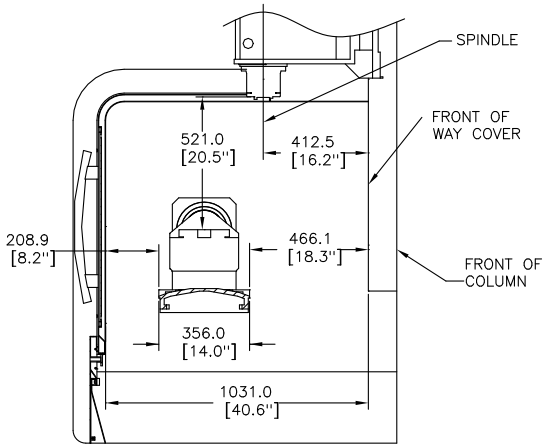
TABLE SPECIFICATIONS

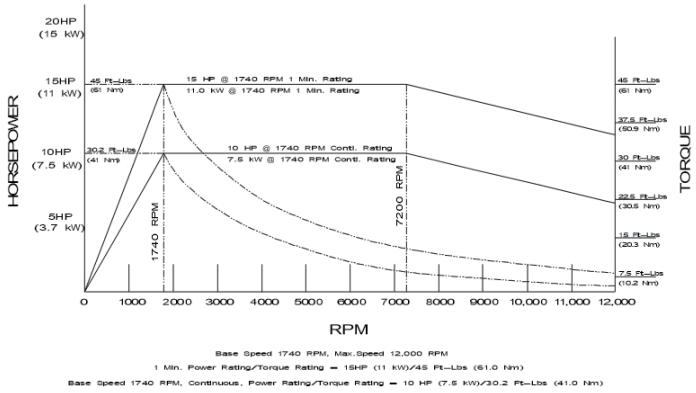
TABLE TRAVELS

INTERIOR CLEARANCES



POWER & TORQUE

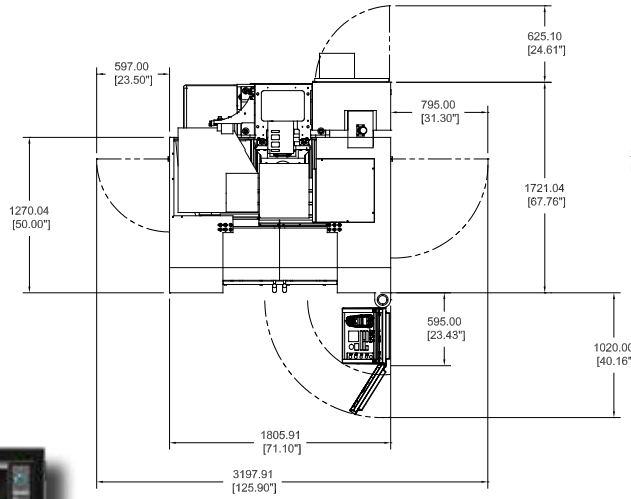


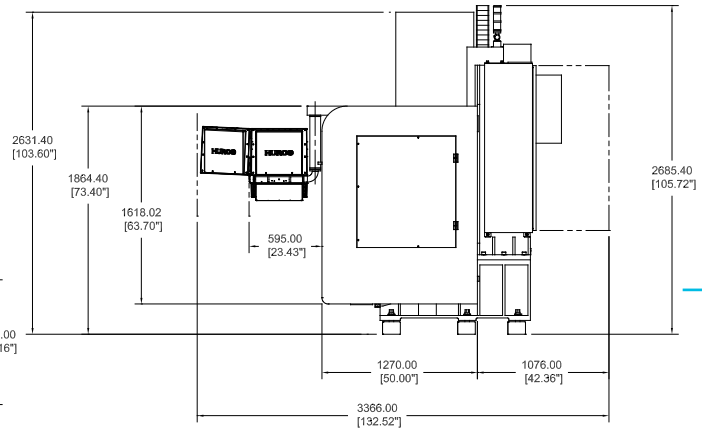


VM10UHSi

High-speed, compact – ideal for medical, aerospace or other demanding 5-axis applications.







Machine Overview

- High-speed 20,000 RPM motorized spindle
- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30°/-110° A-axis motion delivers better undercut capability
- 21" x 16" x 19" travels
- Fast 945 ipm Rapid Traverse Rates (X, Y, Z)
- Larger linear rails: wedge locked and mounted to a machined shoulder for increased rigidity
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 20-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with 19" LCD screen
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Adopting a 5-sided machining process is the most efficient way to instantly increase the profit margin on existing jobs that you manufacture on a conventional 3-axis machine. **Learn more at Hurco.com/5Axis.**

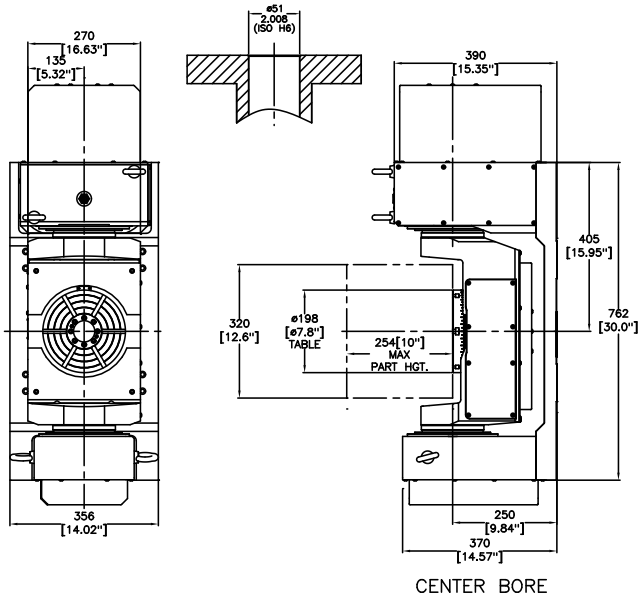
Machine specifications can be found on Pages 46-49

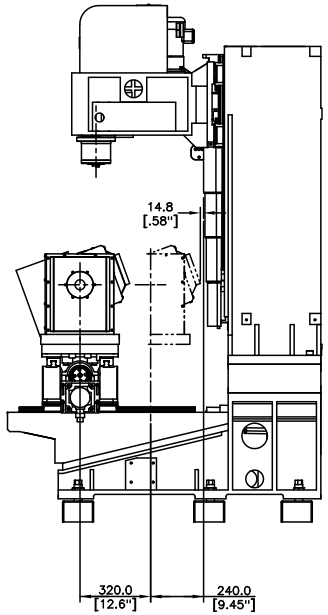
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VM10UHSi

OPERATING DIMENSIONS





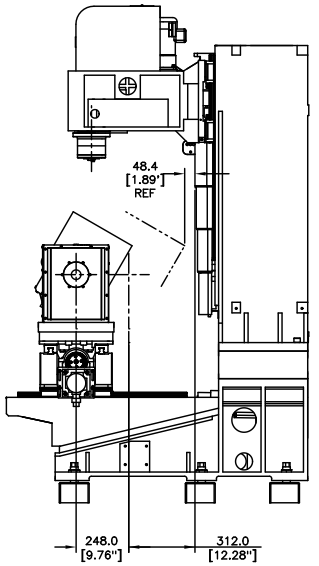
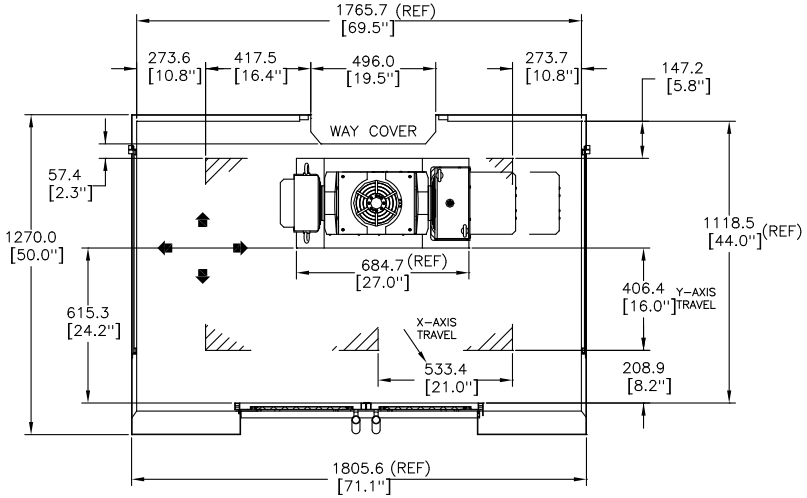


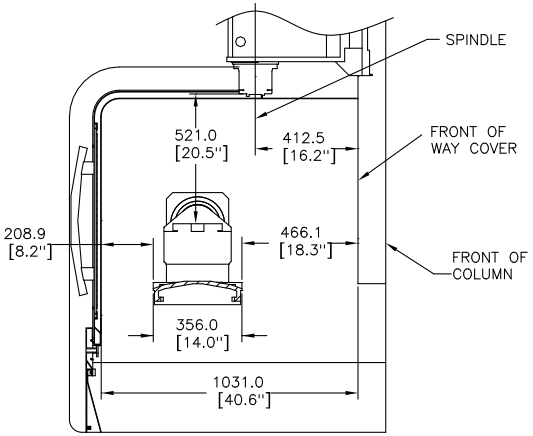
TABLE SPECIFICATIONS

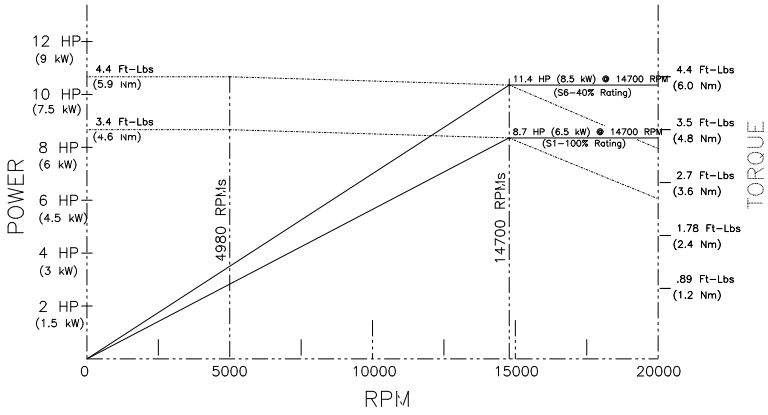
TABLE TRAVELS

INTERIOR CLEARANCES



POWER & TORQUE

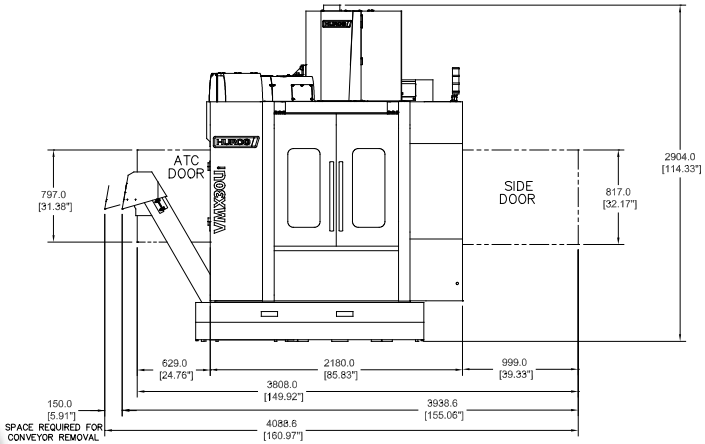


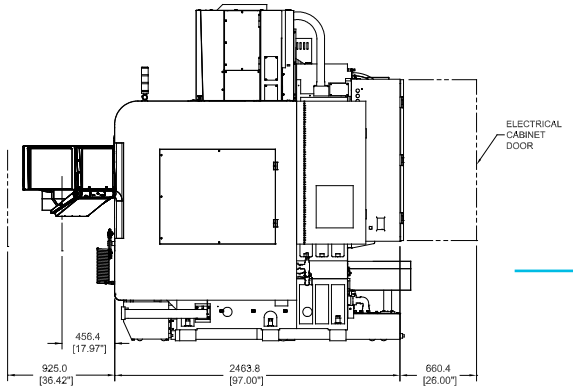


VMX30Ui

Power, speed and unbeatable value – the ideal machine for medium sized 5-axis parts.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30°/-110° A-axis motion delivers better undercut capability
- 30" x 20" x 20.5" travels
- 12,000 RPM dual-wound spindle motor
- Fast 1,496 ipm Rapid Traverse Rates (X + Y) / 1,260 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

GET THE BOOK TODAY!
THE POWER of FIVE
The Definitive Guide to 5-Axis Machining
by **Michael Cope**



FINALLY! A book written for machinists by a machinist that covers 5-axis and 5-sided from start to finish. **Learn more on page 42 and at Hurco.com/5Axis.**

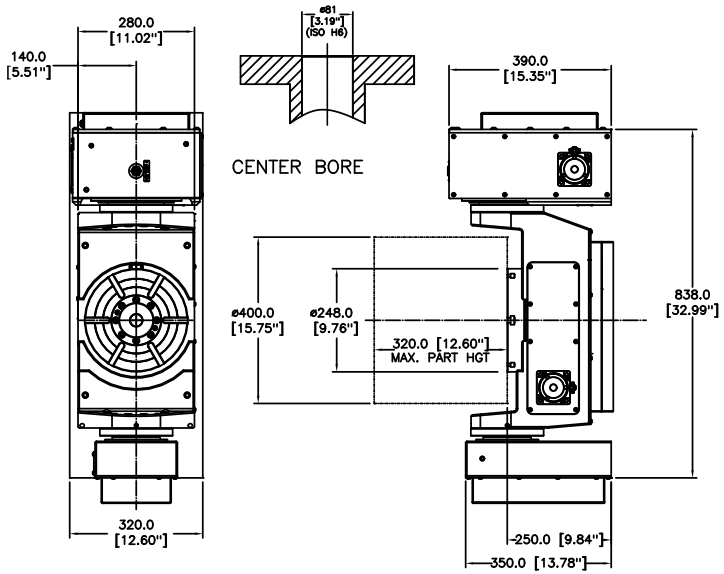
Machine specifications can be found on Pages 46-49

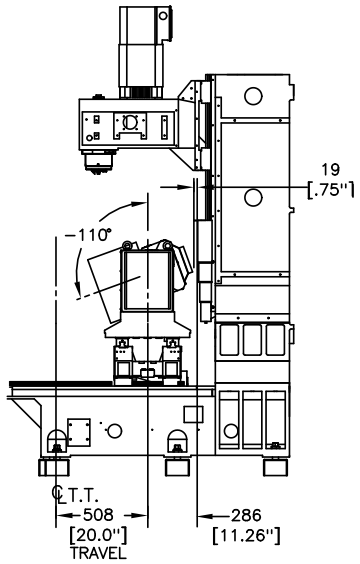
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX30Ui

OPERATING DIMENSIONS





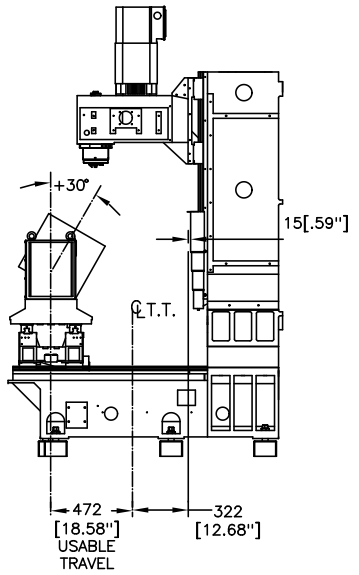
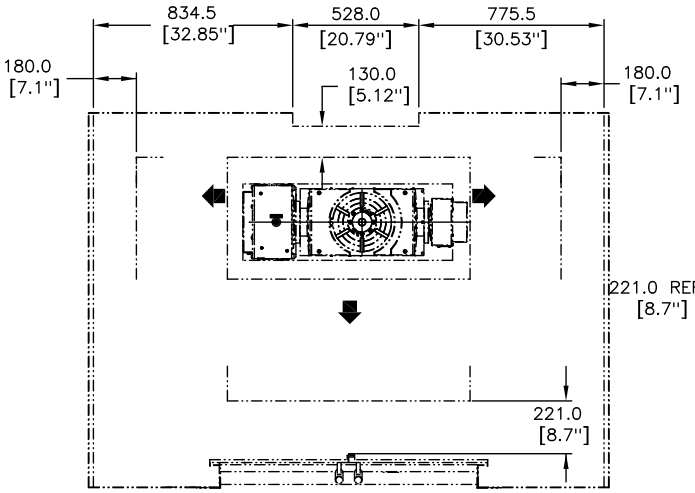
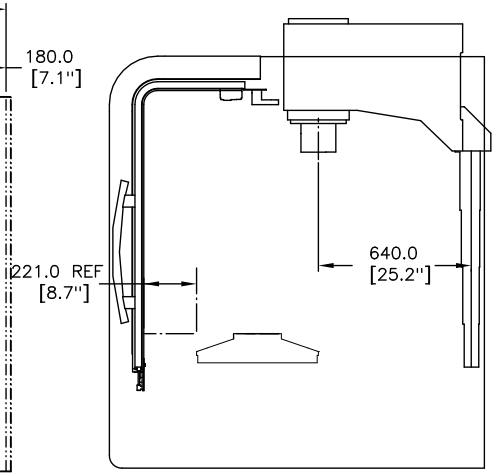


TABLE SPECIFICATIONS

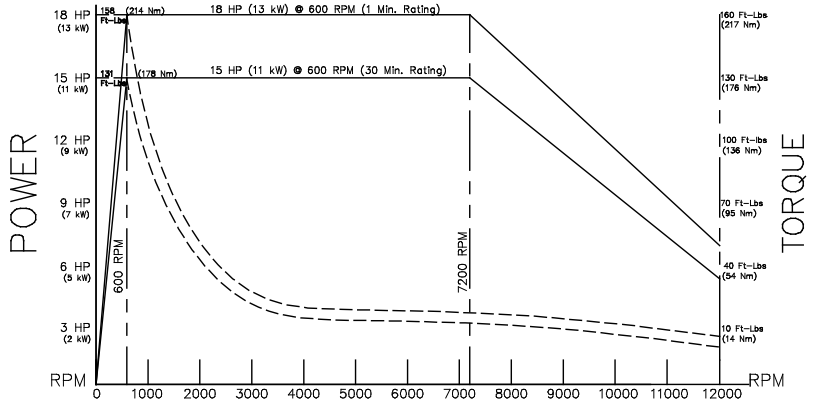
TABLE TRAVELS

INTERIOR CLEARANCES





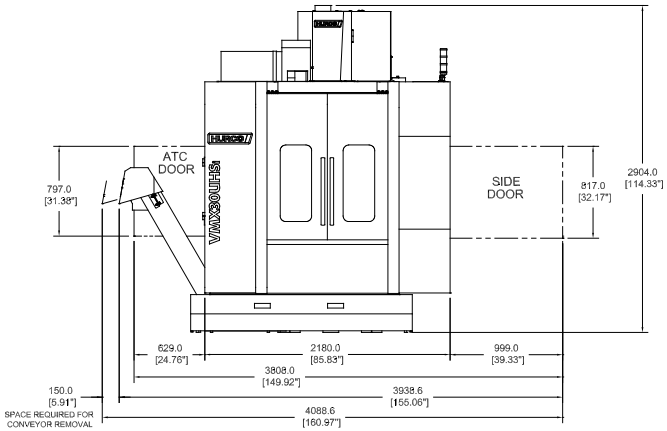
POWER & TORQUE

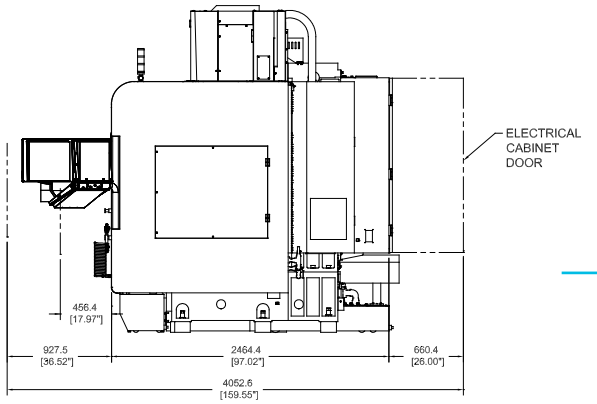


VMX30UHSi

Technology, power and speed provide the ultimate 5-axis solution.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- Larger, heavy-duty roller ways on all three axes
- +30°/-110° A-axis motion delivers better undercut capability
- 30" x 20" x 20.5" travels
- High-speed 18,000 RPM motorized spindle
- Fast 1,771 ipm Rapid Traverse Rates (X + Y) / 1,575 ipm (Z)
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? All Hurco 5-Axis machines are equipped with UltiMotion technology (invented by Hurco), which simultaneously reduces cycle time (by up to 30% or more) and improves surface finish quality. Exclusive motion control only available from Hurco.
To learn more, visit Hurco.com/UltiMotion.

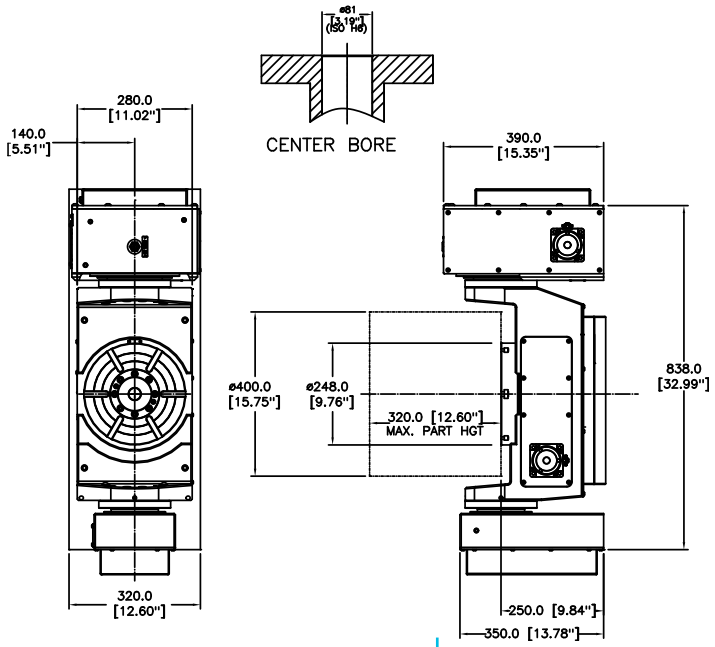
Machine specifications can be found on Pages 46-49

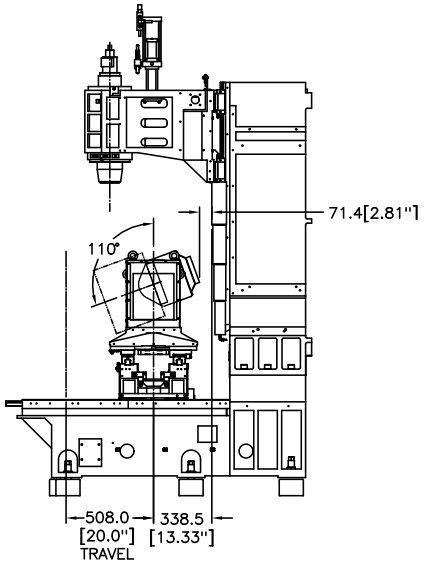
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX30UHSi

OPERATING DIMENSIONS





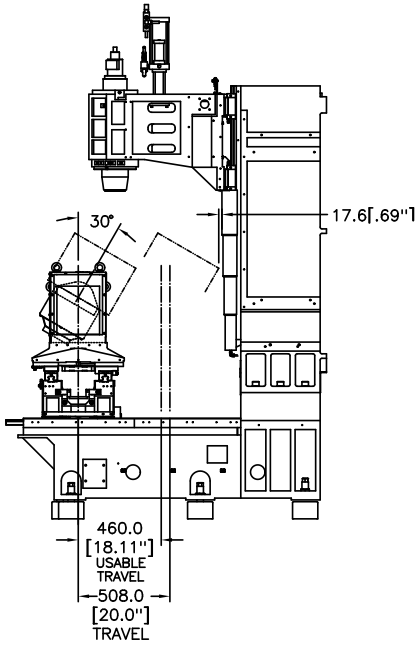
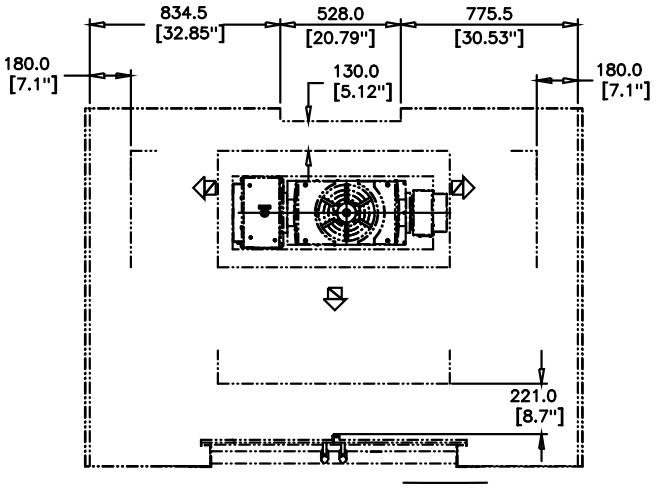
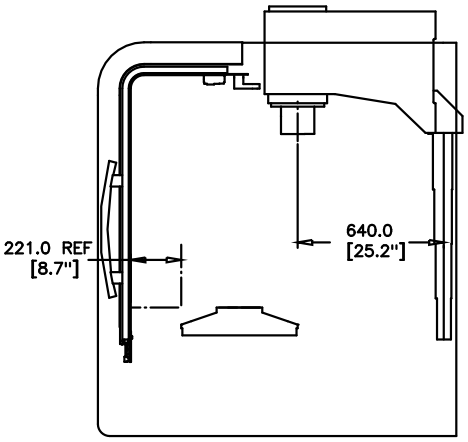


TABLE SPECIFICATIONS

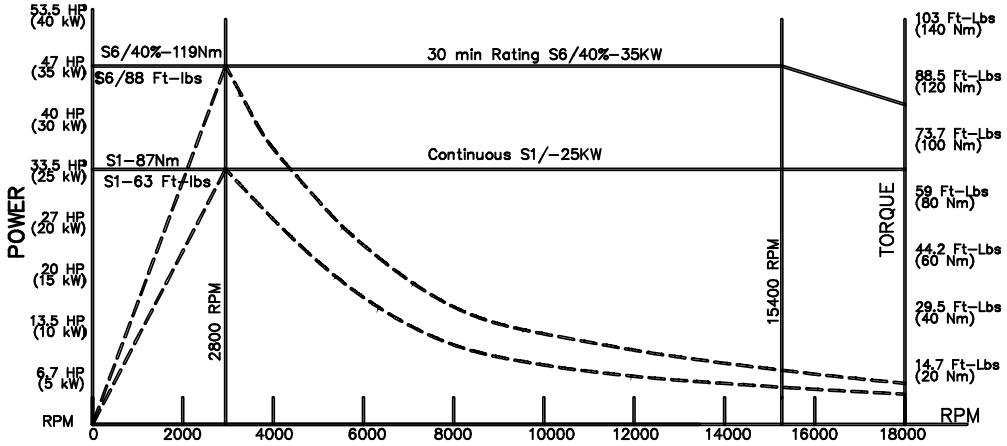
TABLE TRAVELS

INTERIOR CLEARANCES





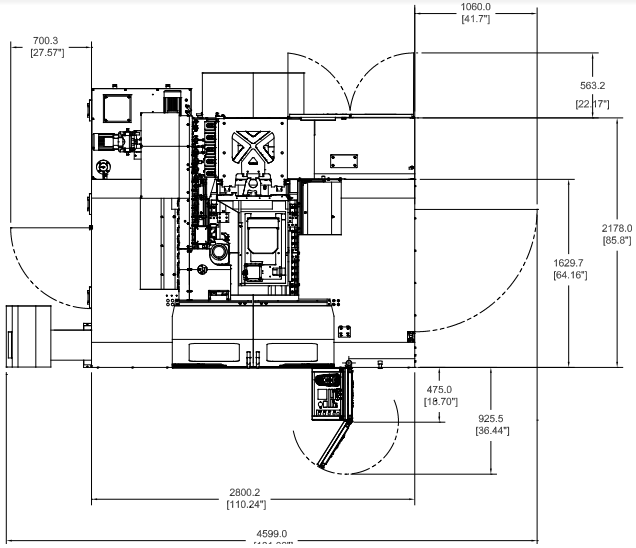
POWER & TORQUE

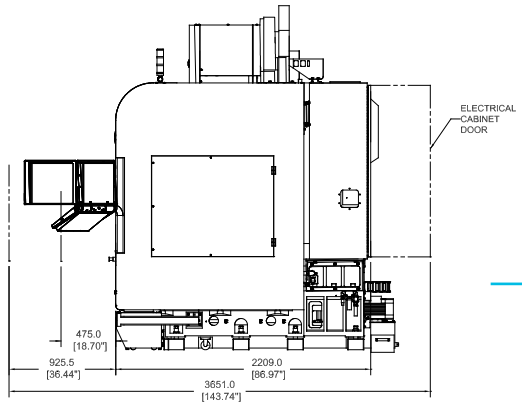


VMX42Ui

5-axis workhorse packed with industry leading technologies.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30°/-110° A-axis motion delivers better undercut capability
- 42" x 24" x 20.5" travels
- 12,000 RPM dual-wound spindle motor
- Fast 1,496 ipm Rapid Traverse Rates (X + Y) / 1,260 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Hurco engineers have invented 3D Import, which includes 3D DXF technology that displays all geometry that the CAD system outputs, including splines. With 3D DXF, simply select the bottom of a contour, and the Z-axis depths will also be automatically input into the conversational block. **Visit Hurco.com/3DImport to learn more.**

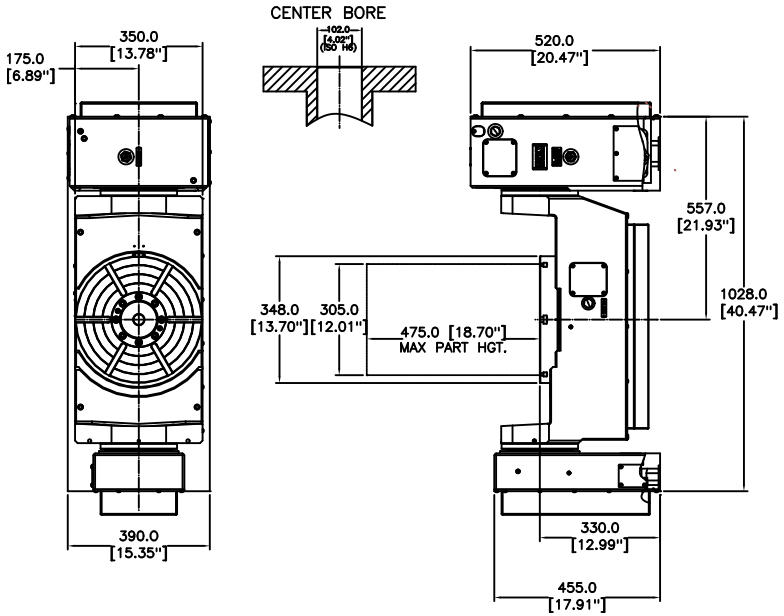
Machine specifications can be found on Pages 46-49

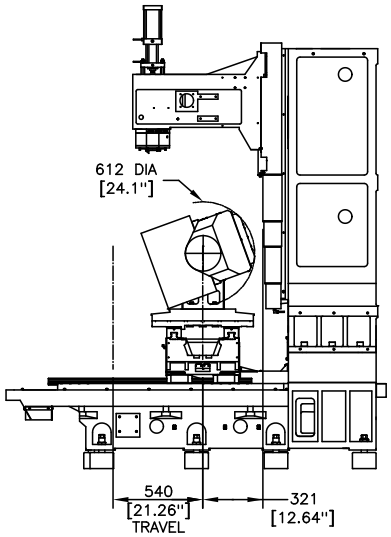
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX42Ui

OPERATING DIMENSIONS





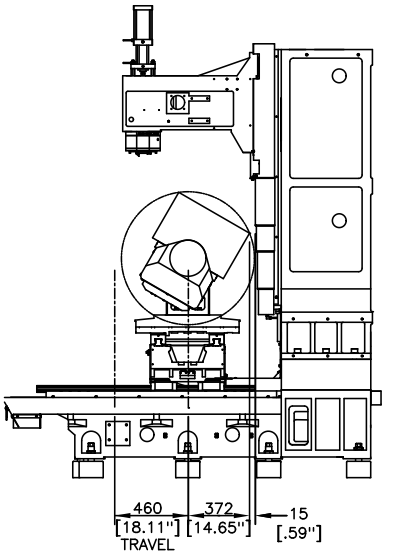
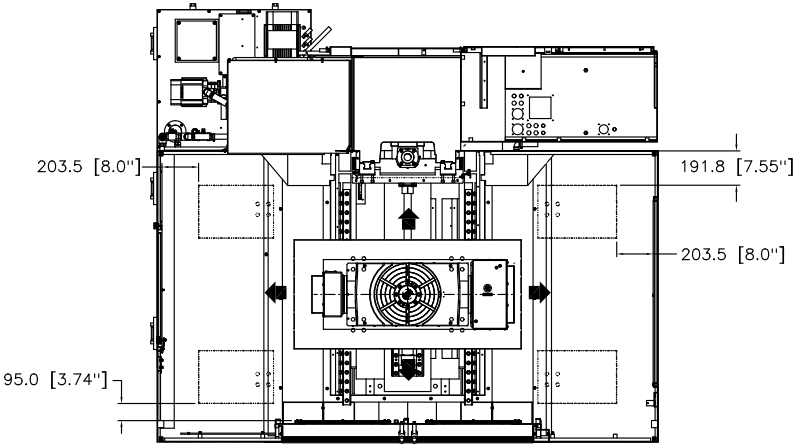
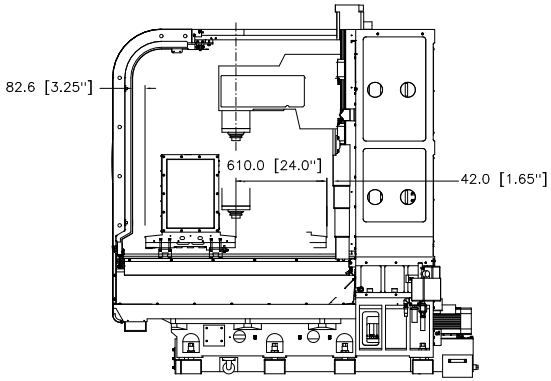


TABLE SPECIFICATIONS

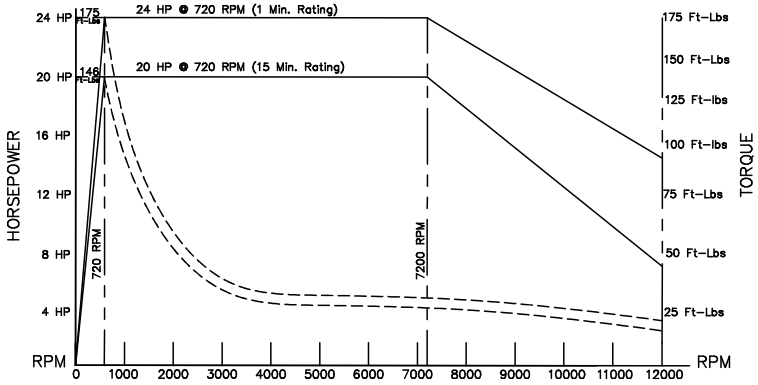
TABLE TRAVELS

INTERIOR CLEARANCES





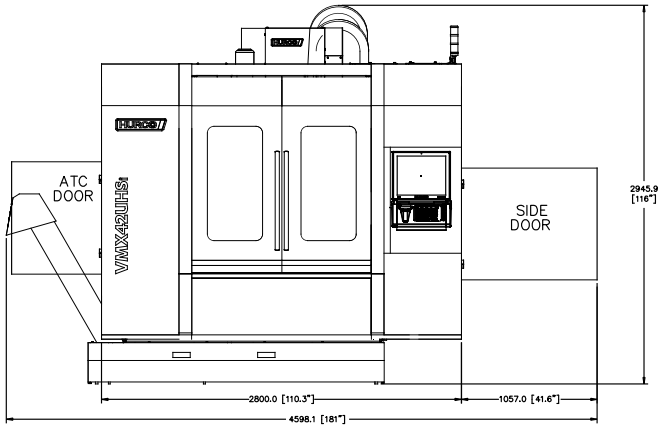
POWER & TORQUE

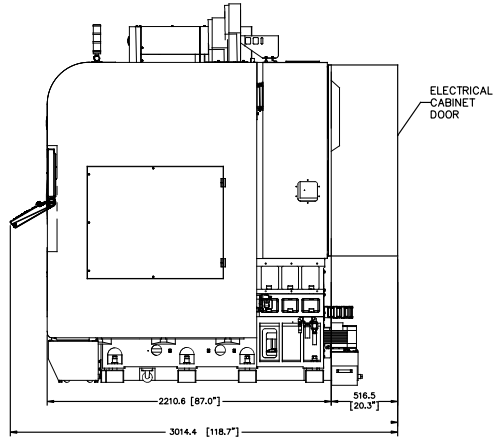


VMX42UHSi

5-axis high speed workhorse packed with industry leading technologies.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- 47 hp (35kW) Peak Spindle
- 18,000 RPM dual-wound spindle motor
- +30°/-110° A-axis motion delivers better undercut capability
- 42" x 24" x 20.5" travels
- Fast 1,771 ipm Rapid Traverse Rates (X + Y). 1,575 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? The 3D Import feature on the Hurco control creates Transform Planes automatically for easy 5-sided conversational programming. No need to enter feature dimensions—simply click and cut. Plus, integrated CAD/CAM and tool path simulation.
Find out more at Hurco.com/3DImport.

Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX42UHSi

OPERATING DIMENSIONS

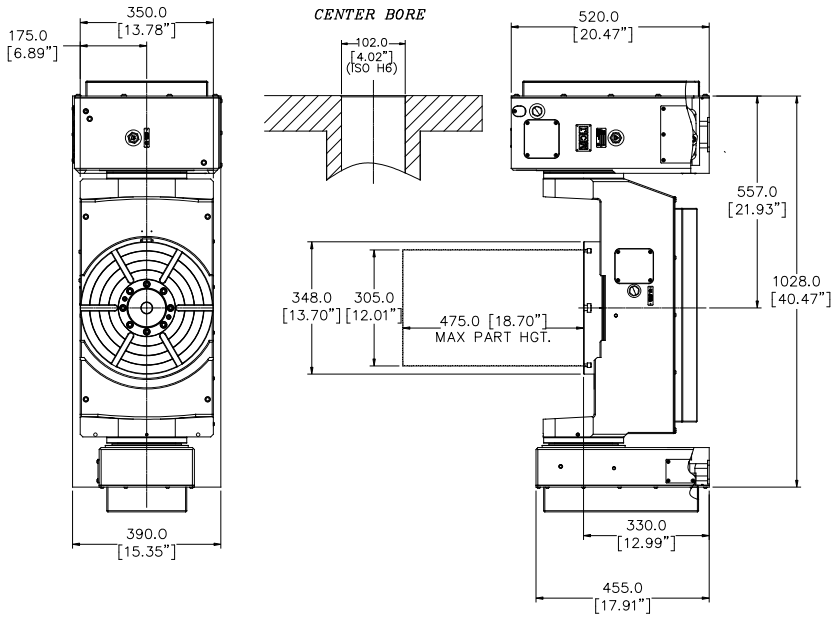
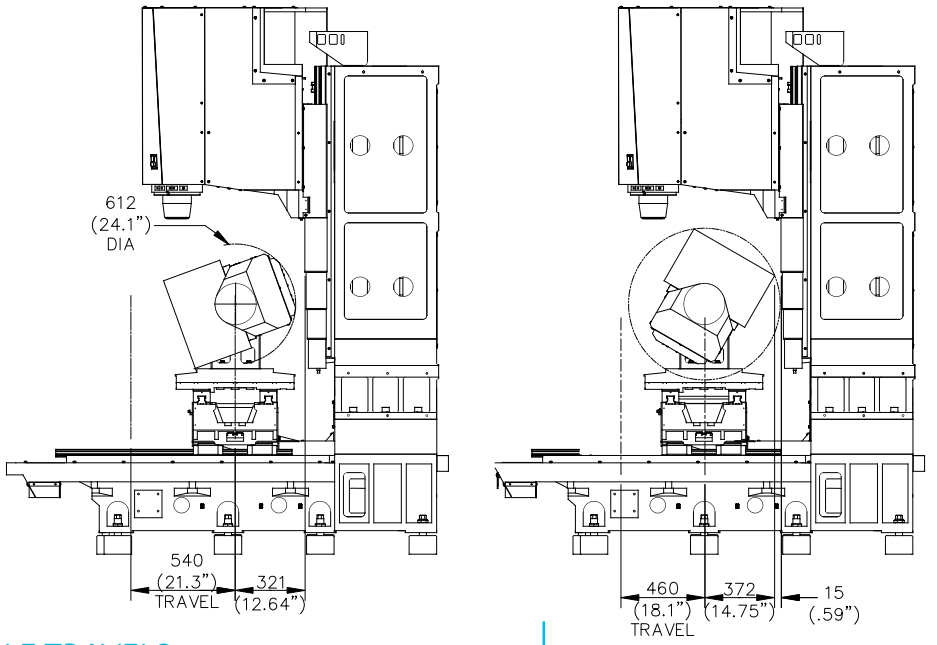
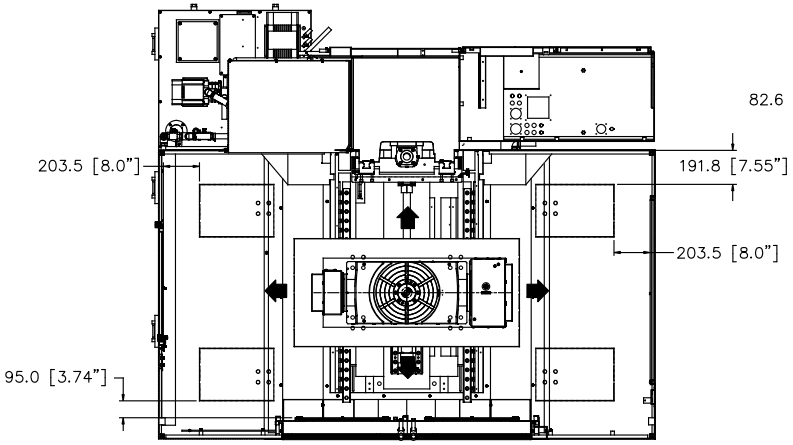


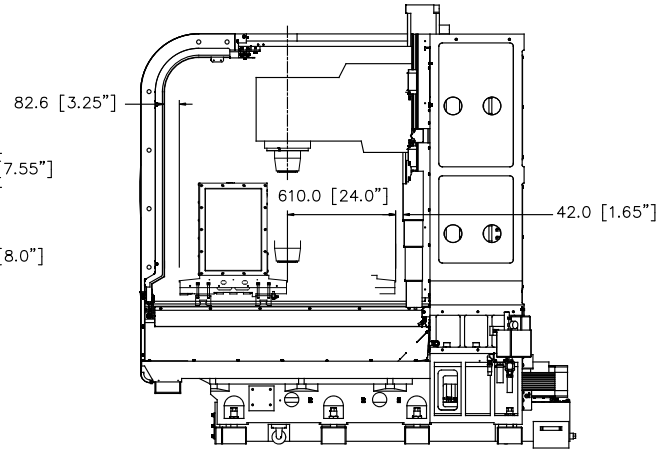
TABLE SPECIFICATIONS

TABLE TRAVELS

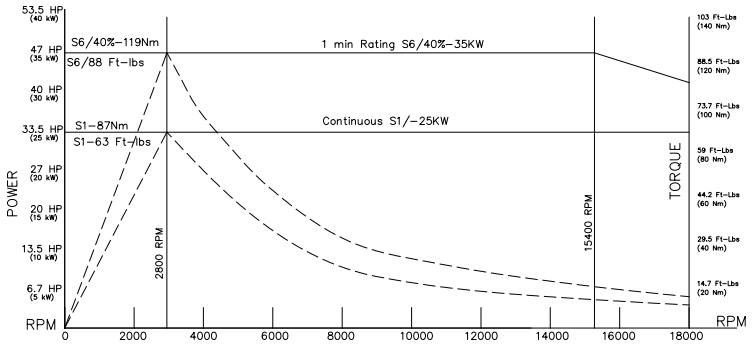


INTERIOR CLEARANCES





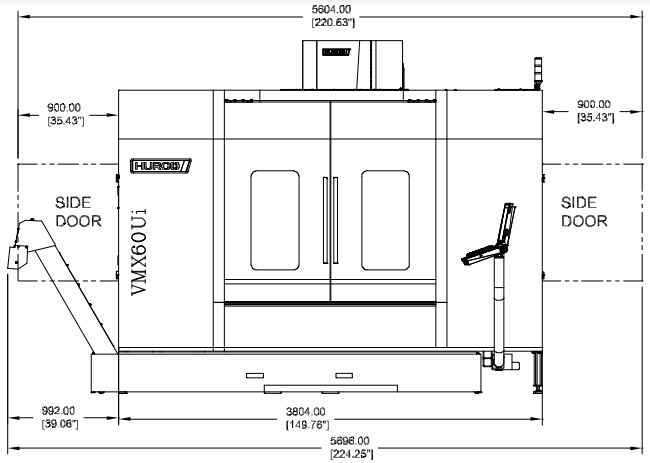
POWER & TORQUE

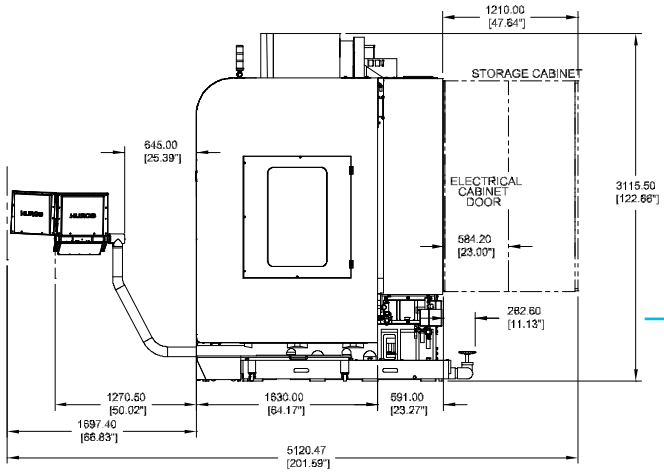


Base Speed 2800 RPM, Max.Speed 18,000 RPM
1 Min. 40% Cycle, Power Rating/Torque Rating=47 HP/ 88 Ft–Lbs
Base Speed 2800 RPM, Continuous Cycle, Power Rating/ Torque Rating=33.5 HP/63 Ft–Lbs

VMX60Ui

A big 5-axis machine for big 5-axis work – with a surprisingly compact footprint.







Did you know? Hurco's Tool Center Point Management eliminates the need to account for the machining center's centerlines of rotation. Instead, you simply use the solid model zero location. Post the program independent of where the stock is fixtured on the table. **Find out more at Hurco.com/5Axis.**

Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30°/-110° A-axis motion delivers better undercut capability
- 60" x 26" x 20.5" travels
- 12,000 RPM dual-wound spindle motor
- Fast 1,260 ipm Rapid Traverse Rates (X + Y) / 945 ipm (Z)
- Larger, heavy-duty linear rails on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

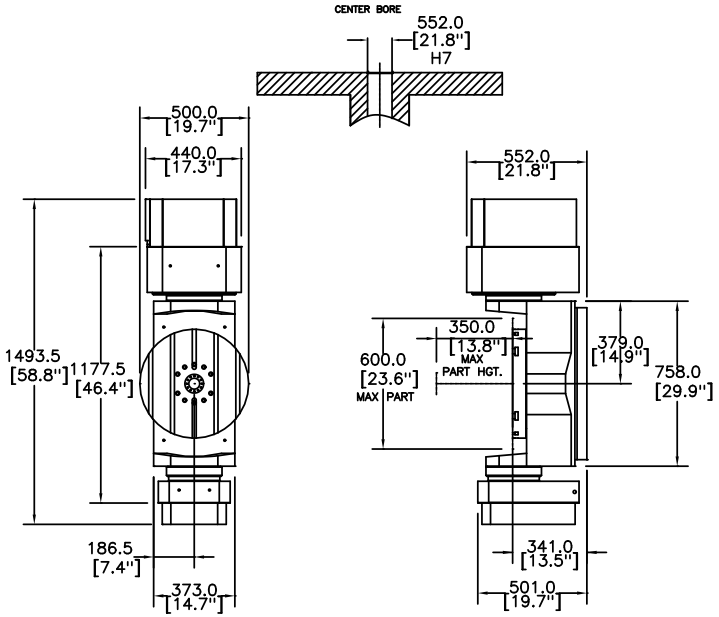
Machine specifications can be found on Pages 46-49

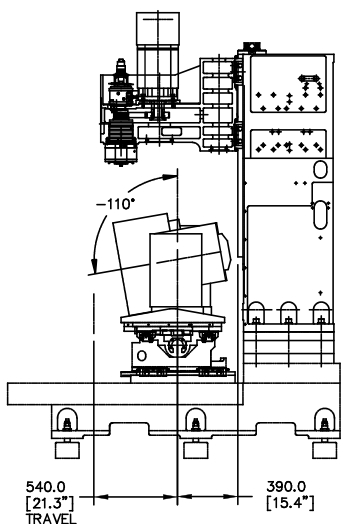
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX60Ui

OPERATING DIMENSIONS





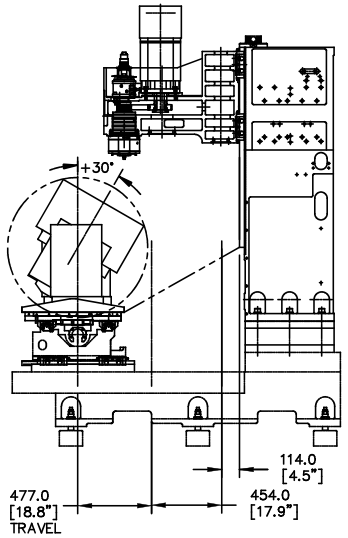
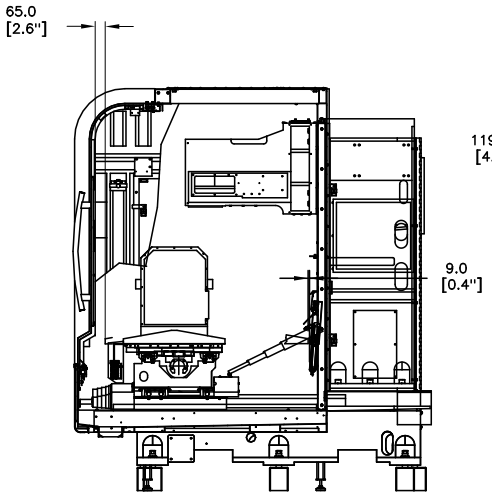
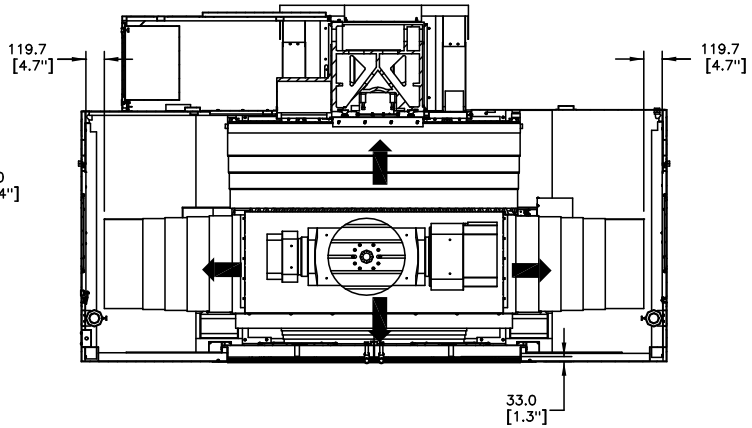


TABLE SPECIFICATIONS

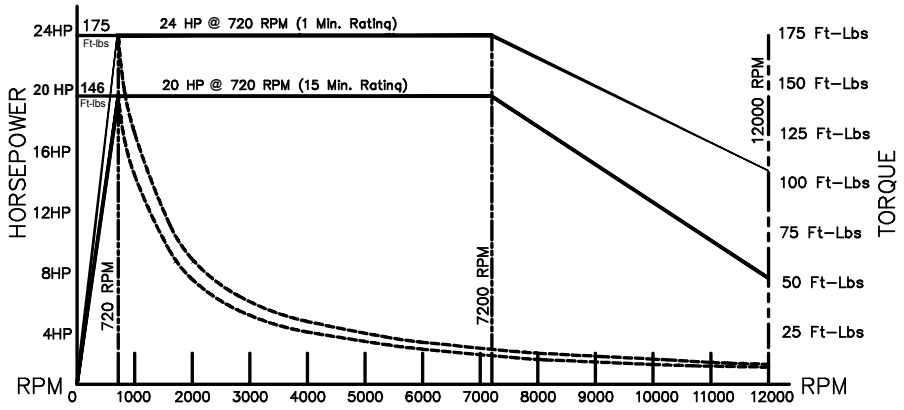
TABLE TRAVELS

INTERIOR CLEARANCES





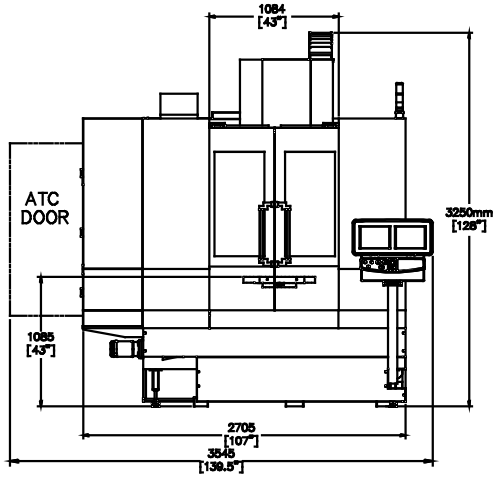
POWER & TORQUE

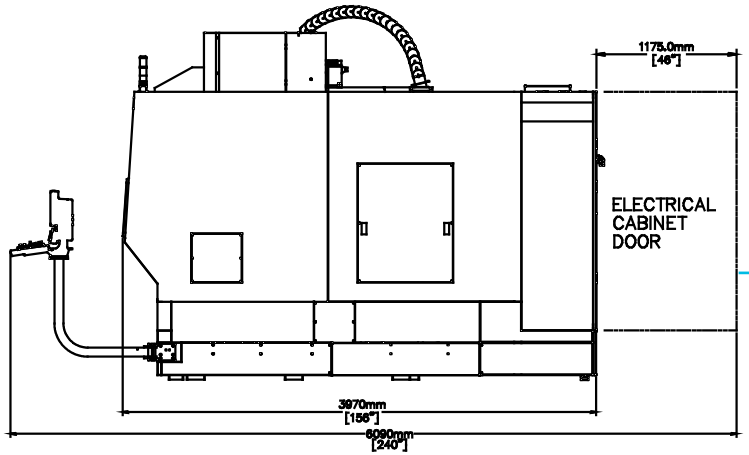


VTXUi

Traveling column 5-axis machine with integrated trunnion table.







Machine Overview

- Integrated trunnion table design provides more clearance in Z-axis and ability to machine heavier parts compared to 3-axis mills with trunnion table added
- +30°/-110° A-axis motion delivers better undercut capability
- 31.5" x 27.6" x 20" travels
- 12,000 RPM dual-wound spindle motor
- Fast 1,378 ipm Rapid Traverse Rates (X, Y, Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 48-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Dual LED work lights
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Adopting a 5-sided machining process is the most efficient way to instantly increase the profit margin on existing jobs that you manufacture on a conventional 3-axis machine. **Learn more at Hurco.com/5Axis.**

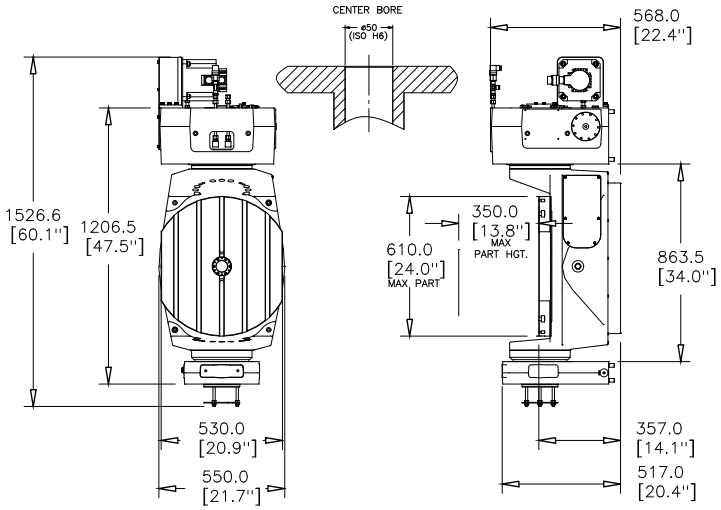
Machine specifications can be found on Pages 46-49

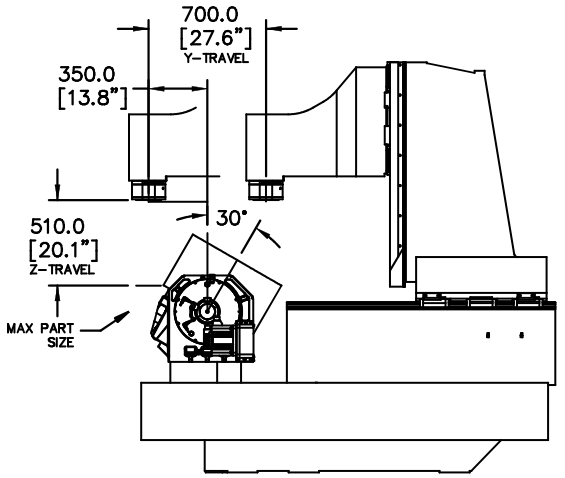
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VTXUi

OPERATING DIMENSIONS





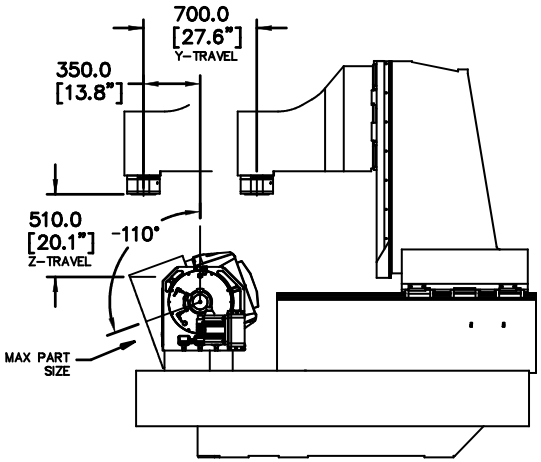
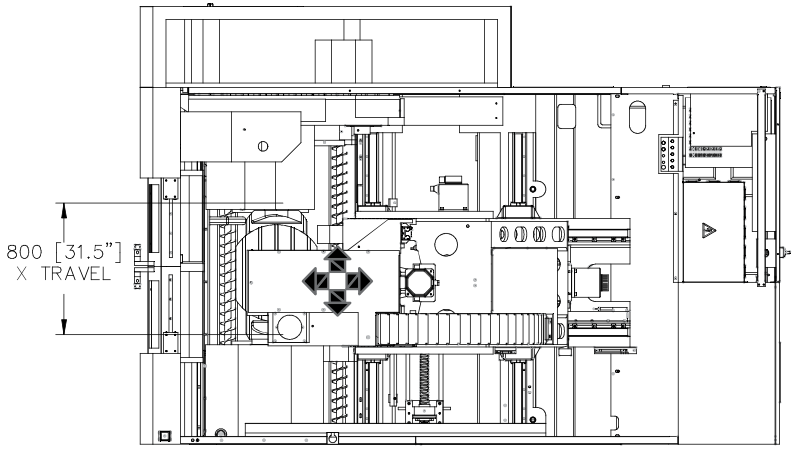
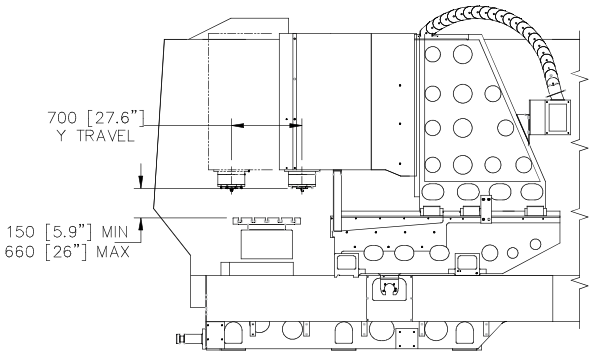


TABLE SPECIFICATIONS

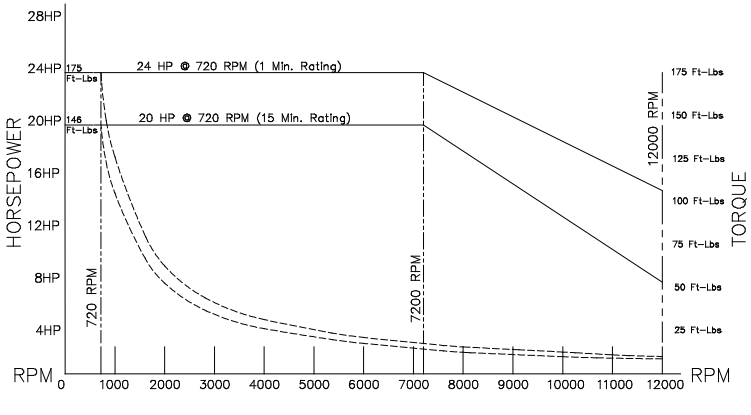
TABLE TRAVELS

INTERIOR CLEARANCES





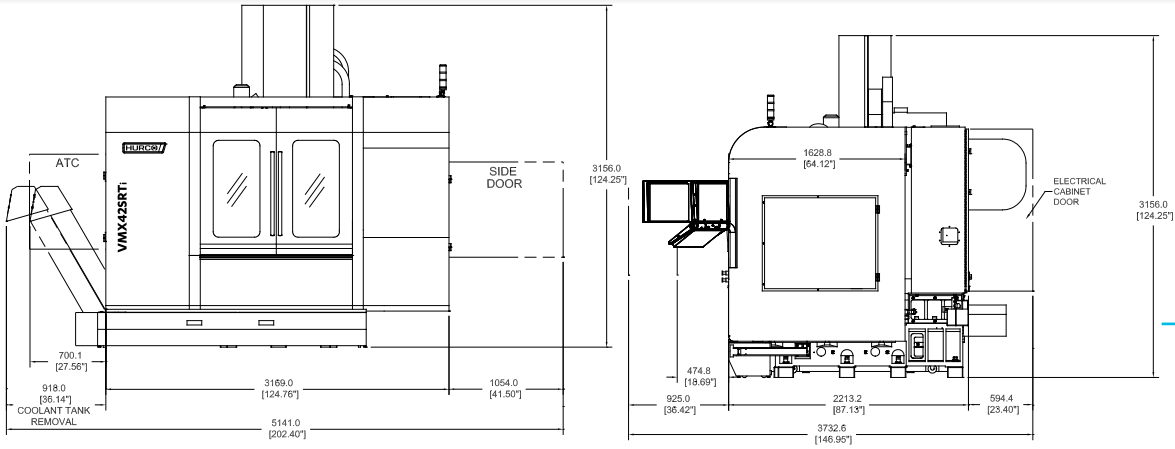
POWER & TORQUE



VMX42SRTi

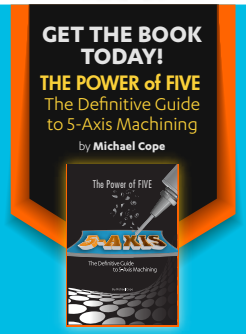
Swivel-head/rotary 5-axis machine designed for high-mix manufacturing.





Machine Overview

- Direct drive, embedded, C-axis, rotary torque table
  - Provides additional 3.5 inches in Z-axis to support taller parts
  - Embedded rotary table design increases working surface of machine table (50 x 24 inches) to support secondary operations and/or 3-axis work
  - Unlimited angular movement: reduces cycle time
  - Stout table: supports heavier parts
  - Rotary table working surface: 23.6" diameter
- 42" x 24" x 24" travels (X, Y, Z). B-axis swivel head travels: +/- 90°
- 12,000 RPM dual-wound Yaskawa spindle motor provides more horsepower
- Fast 1,496 ipm Rapid Traverse Rates (X + Y) / 1,260 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance



FINALLY! A book written for machinists by a machinist that covers 5-axis and 5-sided from start to finish. **Learn more on page 42 and at Hurco.com/5Axis.**

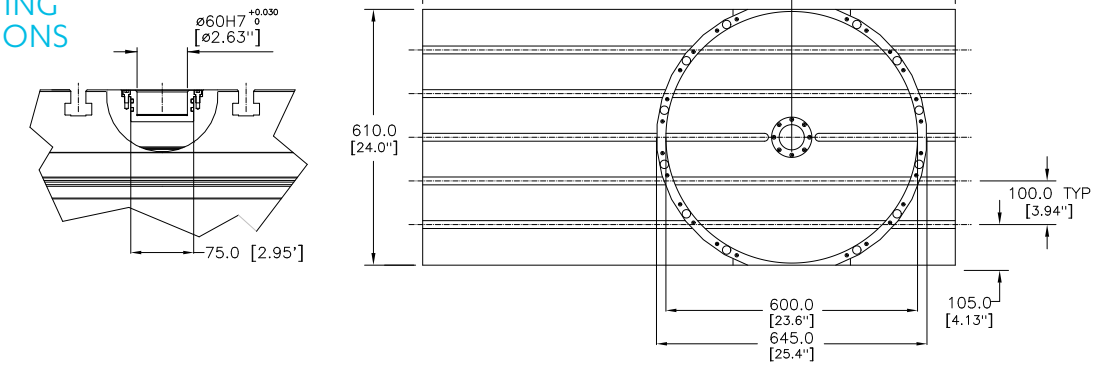
Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX42SRTi

OPERATING DIMENSIONS



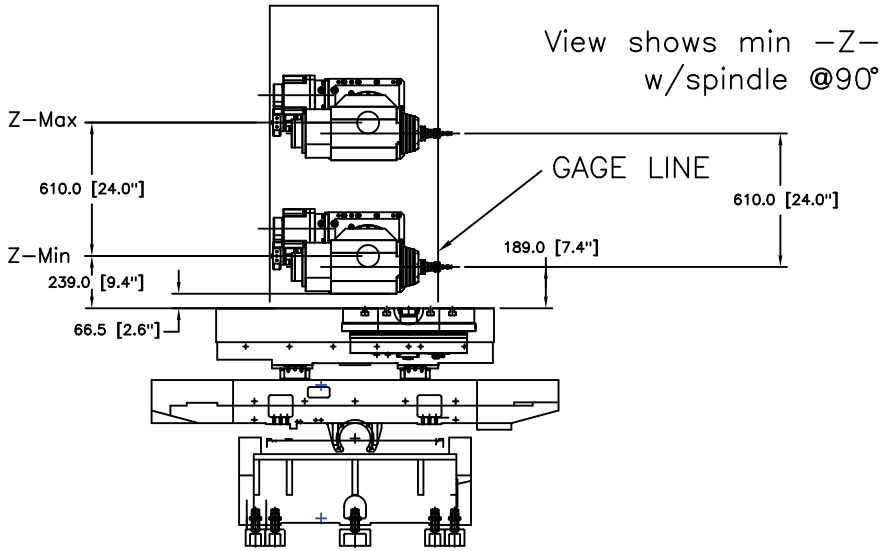
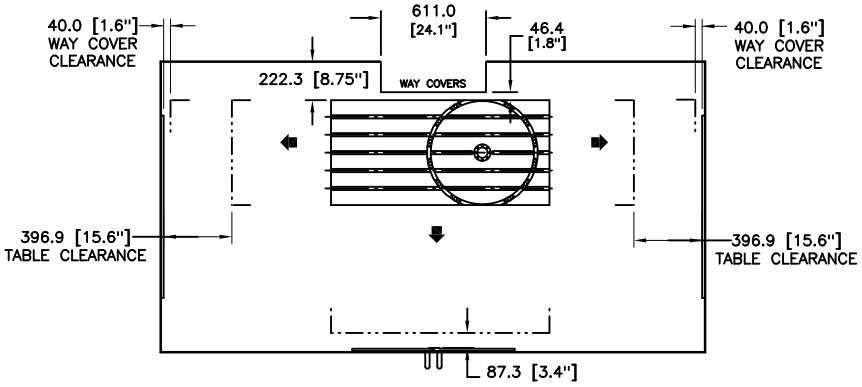
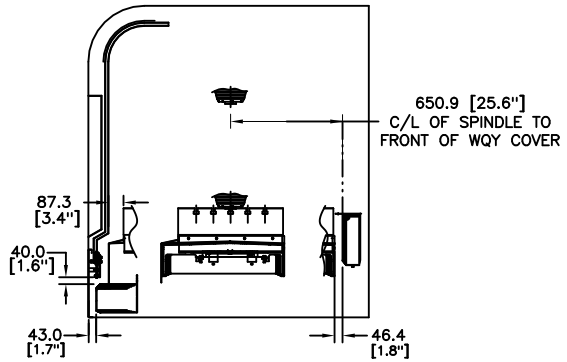


TABLE SPECIFICATIONS

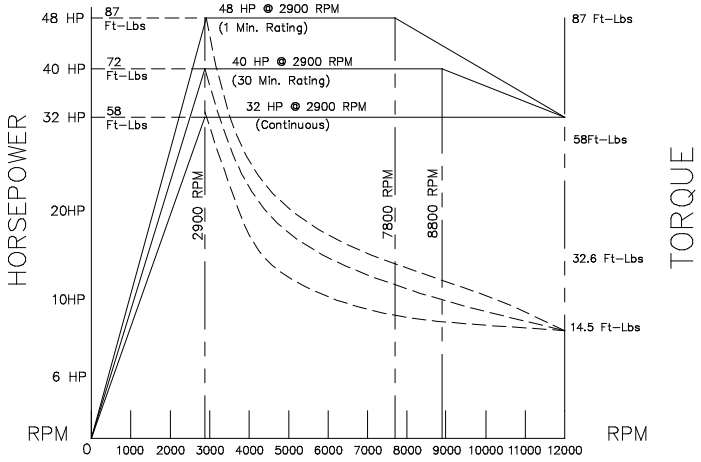
TABLE TRAVELS

INTERIOR CLEARANCES



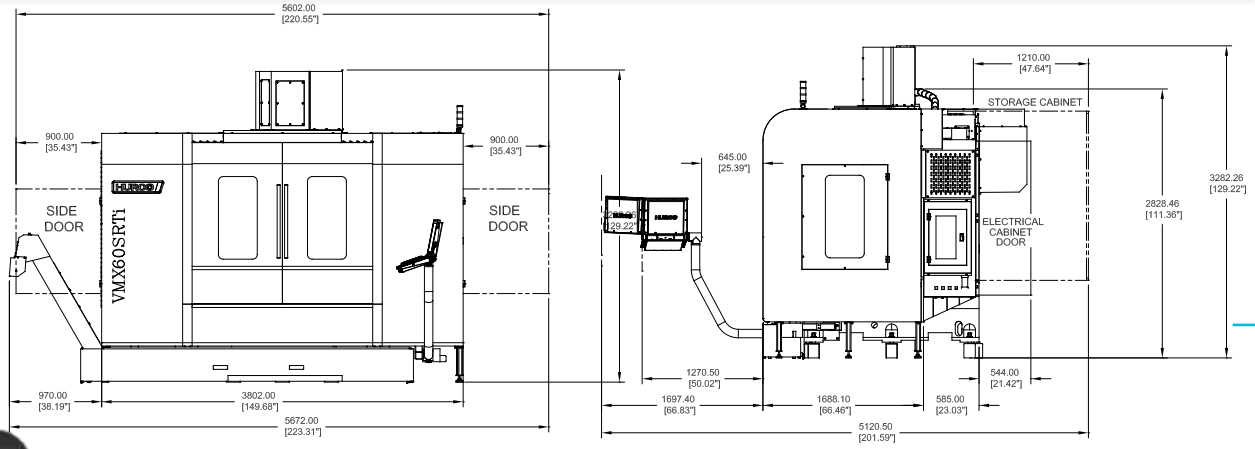


POWER & TORQUE



VMX60SRTi

Swivel head on column + rotary integrated into huge table = maximum flexibility.





Did you know? All Hurco 5-Axis machines are equipped with UltiMotion technology (invented by Hurco), which simultaneously reduces cycle time (by up to 30% or more) and improves surface finish quality. Exclusive motion control only available from Hurco.
To learn more, visit Hurco.com/UltiMotion.

Machine Overview

- Direct drive, embedded, C-axis, rotary torque table
  - Provides additional 3.5 inches in Z-axis to support taller parts
  - Embedded rotary table design increases working surface of machine table (66 x 26 inches) to support secondary operations and/or 3-axis work
  - Unlimited angular movement: reduces cycle time
  - Stout table: supports heavier parts
  - Rotary table working surface: 23.6" diameter
- 60" x 26" x 24" travels (X, Y, Z). B-axis swivel head travels: +/- 90°
- 12,000 RPM dual-wound Yaskawa spindle motor provides more horsepower
- 1,260 ipm Rapid Traverse Rates (X + Y) / 945 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

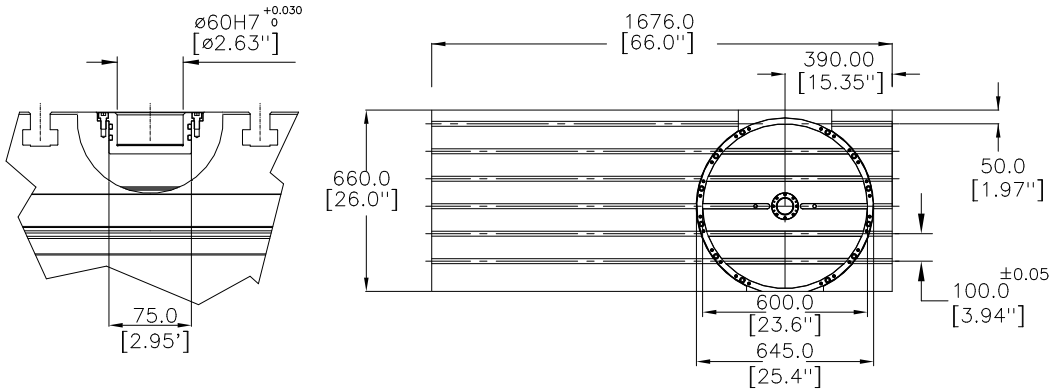
Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX60SRTi

OPERATING DIMENSIONS



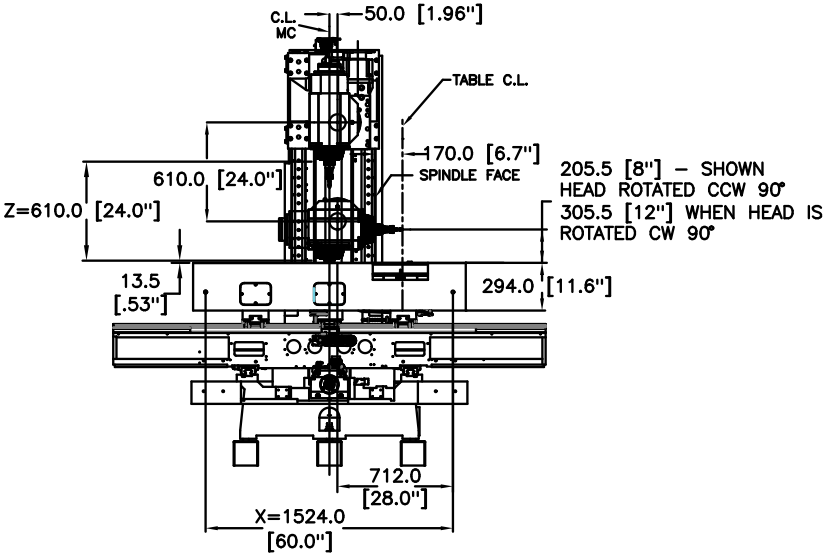
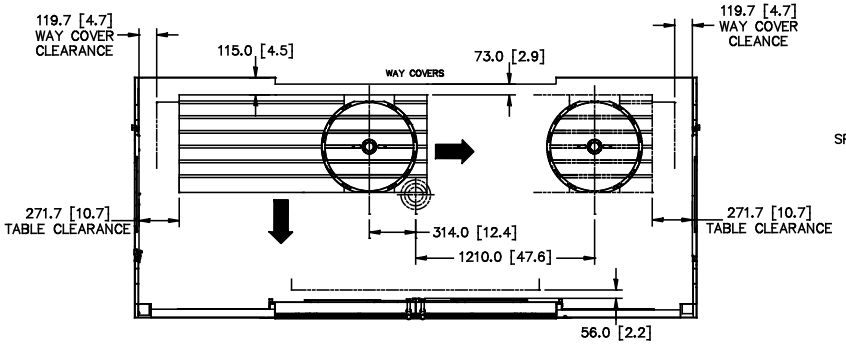


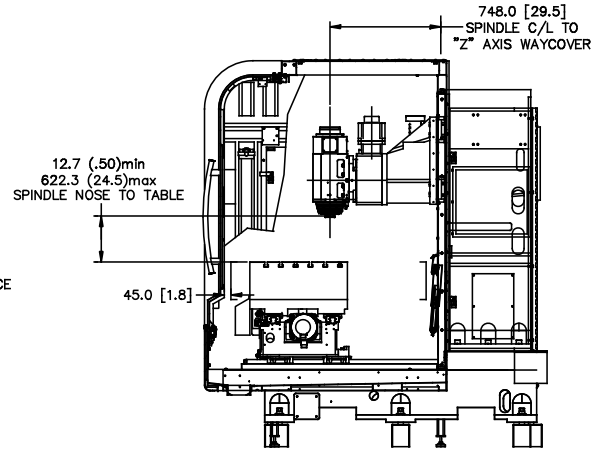
TABLE SPECIFICATIONS

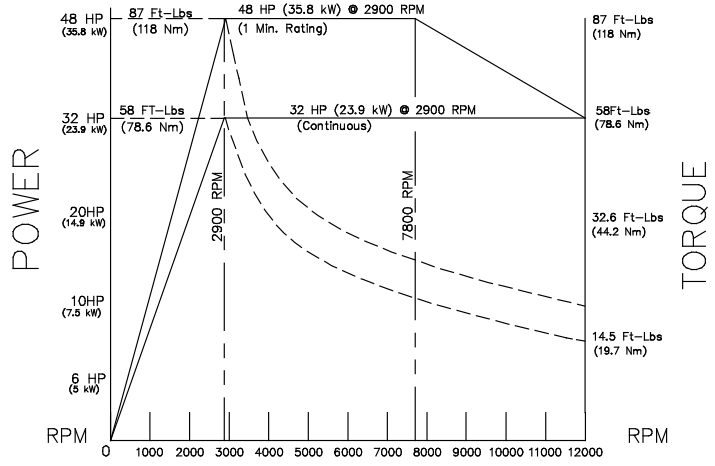
TABLE TRAVELS

INTERIOR CLEARANCES



POWER & TORQUE

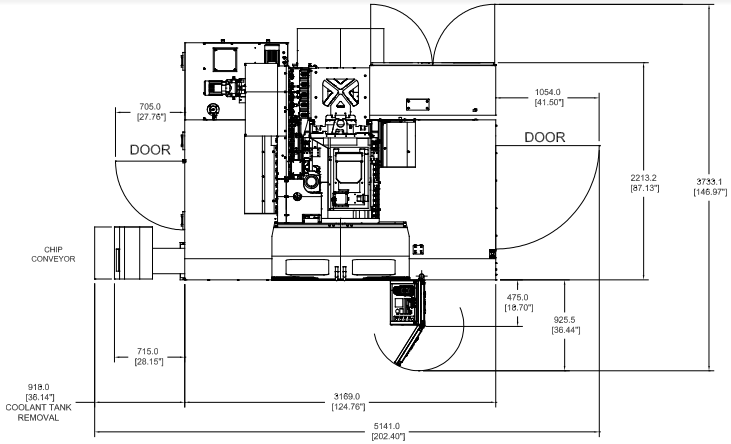


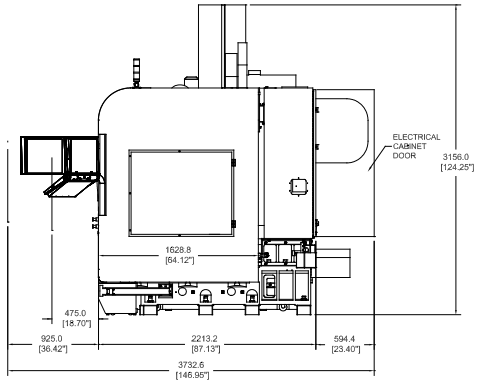


VMX42HSRTi

5-axis swivel-head torque table design with high speed spindle.







Machine Overview

- Direct drive, embedded, C-axis, rotary torque table
  - Provides additional 3.5 inches in Z-axis to support taller parts
  - Embedded rotary table design increases working surface of machine table (50 x 24 inches) to support secondary operations and/or 3-axis work
  - Unlimited angular movement: reduces cycle time
  - Stout table: supports heavier parts
  - Rotary table working surface: 23.6" diameter
- 42" x 24" x 24" travels (X, Y, Z). B-axis swivel head travels: +/- 90°
- High speed 18,000 RPM dual-wound Yaskawa spindle motor
- Fast 1,771 ipm Rapid Traverse Rates (X + Y) / 1,575 ipm (Z)
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders for rotary axes
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? Hurco engineers have invented 3D Import, which includes 3D DXF technology that displays all geometry that the CAD system outputs, including splines. With 3D DXF, simply select the bottom of a contour, and the Z-axis depths will also be automatically input into the conversational block. **Visit Hurco.com/3DImport to learn more.**

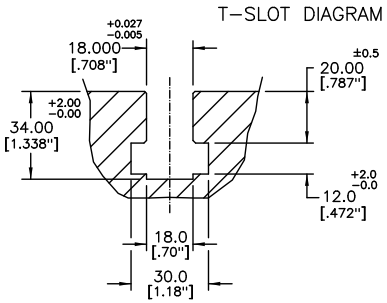
Machine specifications can be found on Pages 46-49

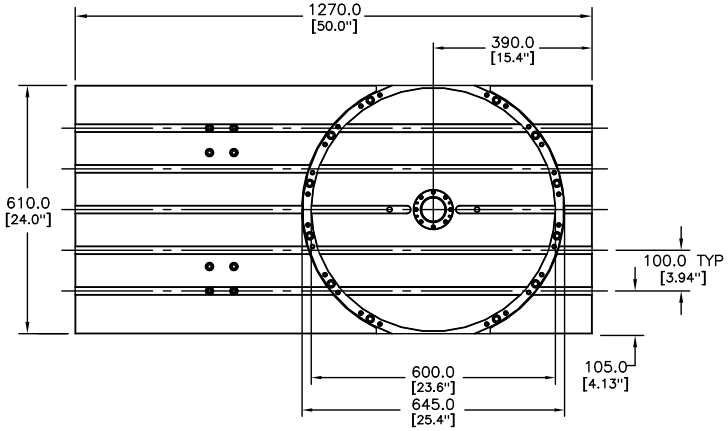
For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX42HSRTi

OPERATING DIMENSIONS





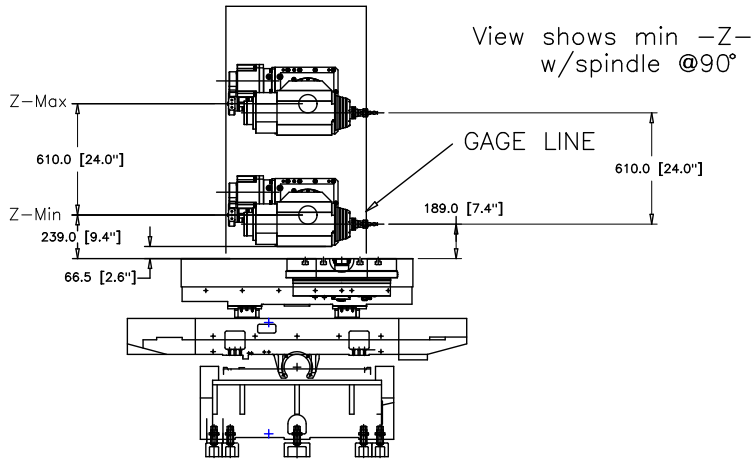
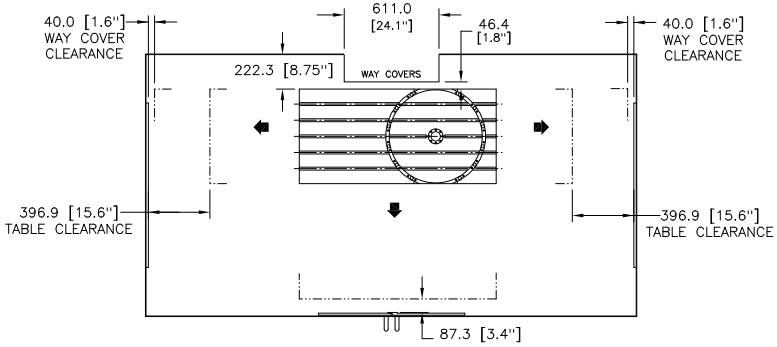
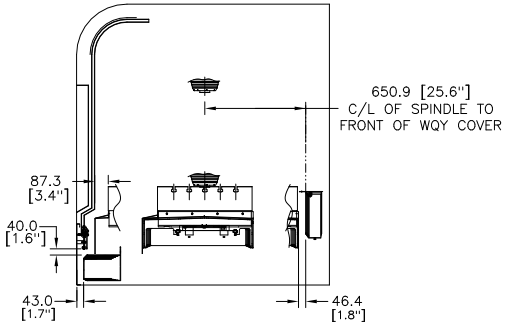


TABLE SPECIFICATIONS

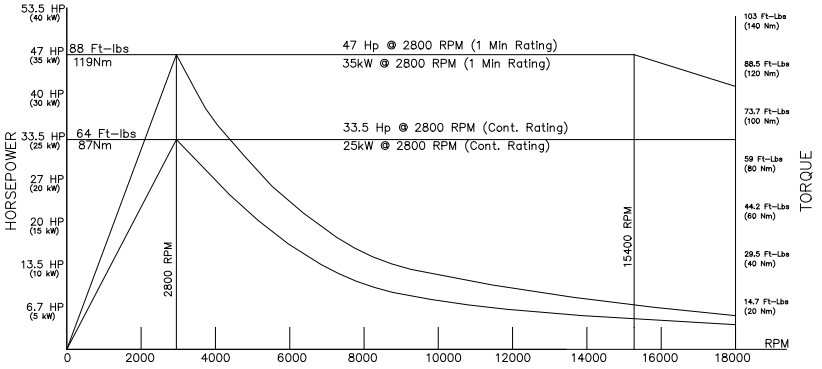
TABLE TRAVELS

INTERIOR CLEARANCES





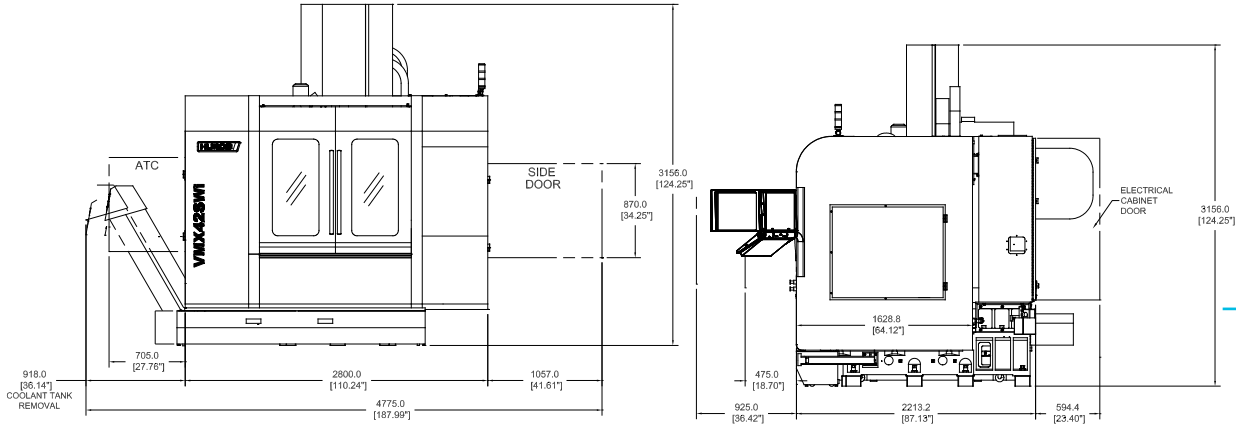
POWER & TORQUE



VMX42SWi

4-axis swivel head machine with optional rotary A-axis or C-axis available.





Machine Overview

- 42" x 24" x 24" travels (X, Y, Z) / B-axis swivel head travels: +/- 90°
- 12,000 RPM dual-wound Yaskawa spindle motor provides more horsepower
- Fast 1,496 ipm Rapid Traverse Rates (X + Y) / 1,260 ipm (Z)
- Large table weight capacity (3,000 lbs with uniform distribution)
- Multiple A-axis table options available
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders (B-axis)
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

Did you know? The 3D Import feature on the Hurco control creates Transform Planes automatically for easy 5-sided conversational programming. No need to enter feature dimensions—simply click and cut. Plus, integrated CAD/CAM and tool path simulation.
Find out more at Hurco.com/3DImport.

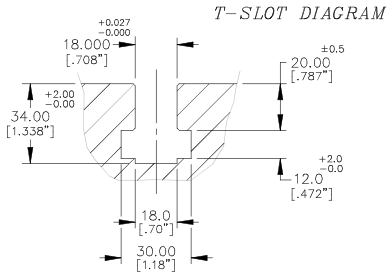
Machine specifications can be found on Pages 46-49

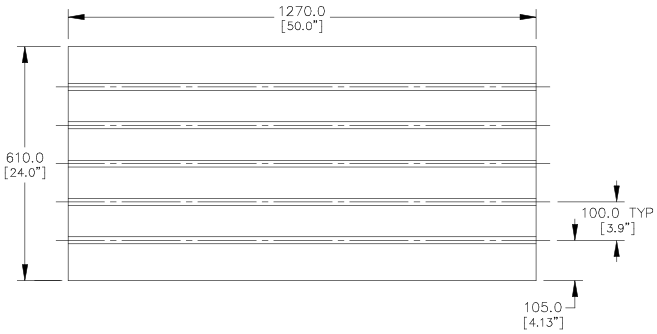
For more information about the Hurco Control, go to page 38.

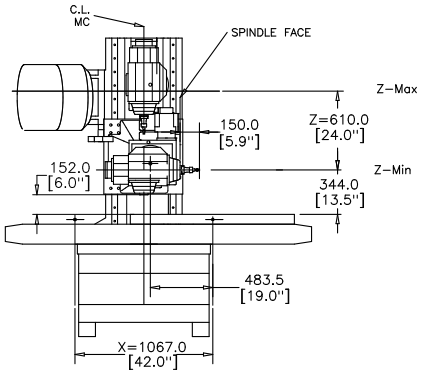
Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX42SWi

OPERATING DIMENSIONS







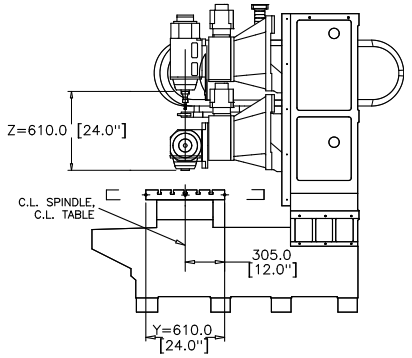
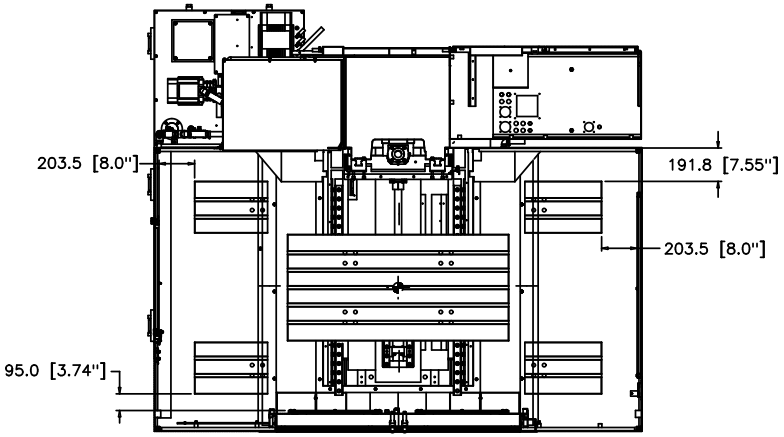
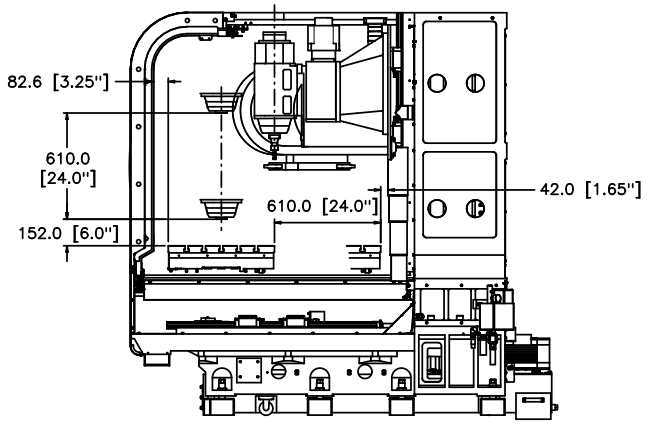


TABLE SPECIFICATIONS

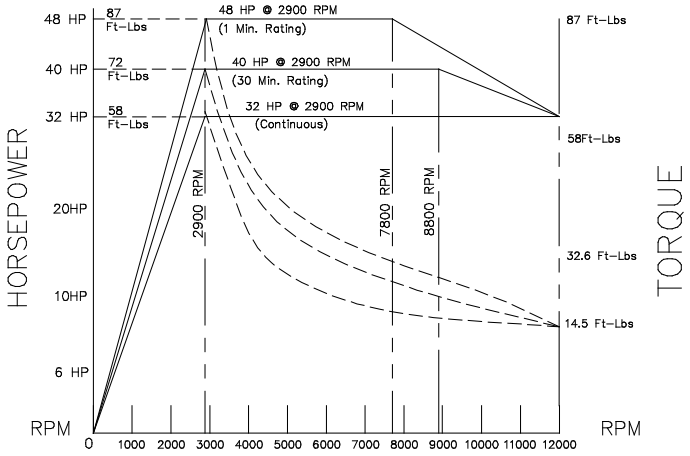
TABLE TRAVELS

INTERIOR CLEARANCES



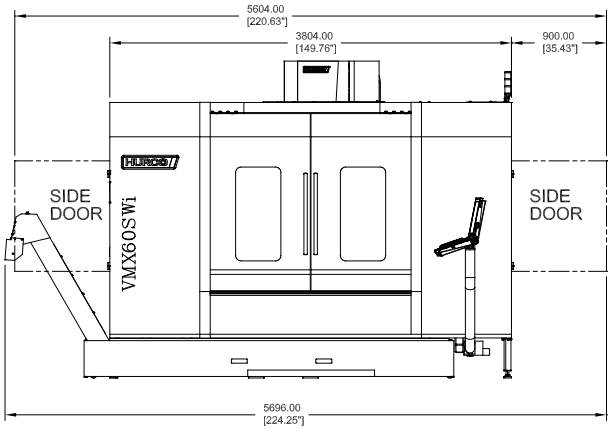


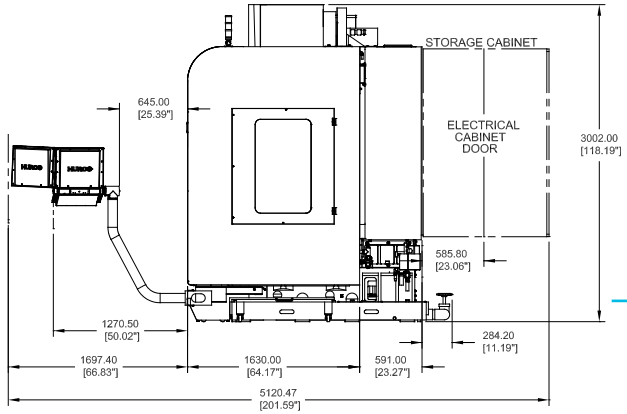
POWER & TORQUE



VMX60SWi

Huge travels and swivel head design with configurable A or C axis flexibility.







Did you know? Hurco's Tool Center Point Management eliminates the need to account for the machining center's centerlines of rotation. Instead, you simply use the solid model zero location. Post the program independent of where the stock is fixtured on the table. **Find out more at Hurco.com/5Axis.**

Machine Overview

- 60" x 26" x 24" travels (X, Y, Z). B-axis swivel head travels: +/- 90°
- 12,000 RPM dual-wound Yaskawa spindle motor provides more horsepower
- 1,260 ipm Rapid Traverse Rates (X + Y) / 945 ipm (Z)
- Large table weight capacity (3,000 lbs with uniform distribution)
- Multiple A-axis table options available
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders (B-axis)
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming.
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- Z-axis regenerative brake – no counterbalance

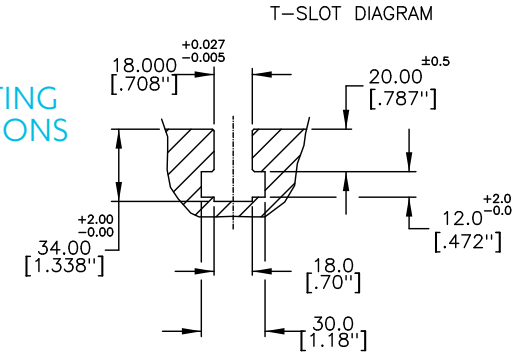
Machine specifications can be found on Pages 46-49

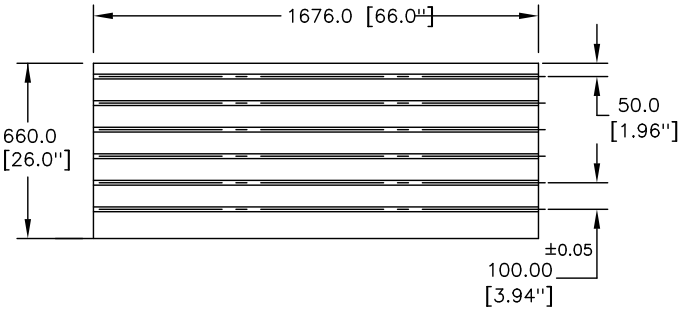
For more information about the Hurco Control, go to page 38.

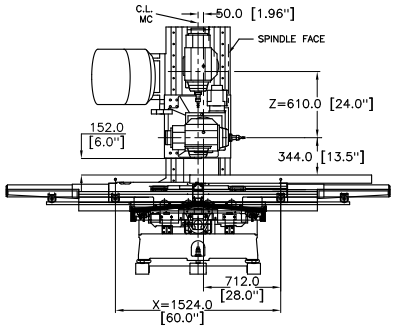
Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX60SWi

OPERATING DIMENSIONS







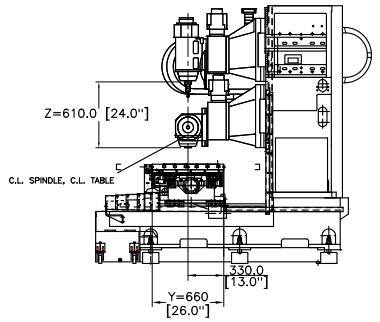
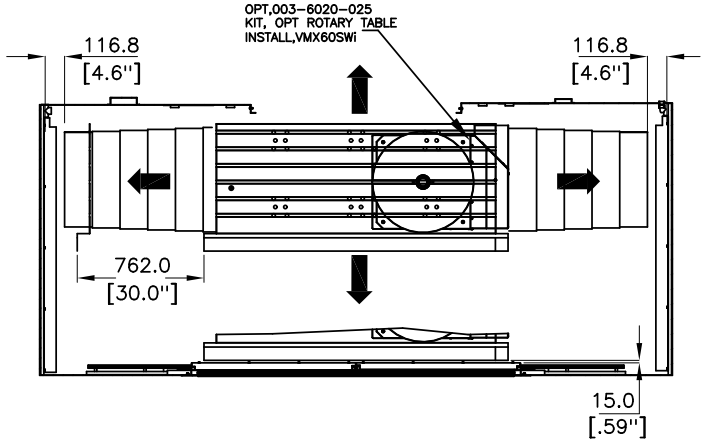
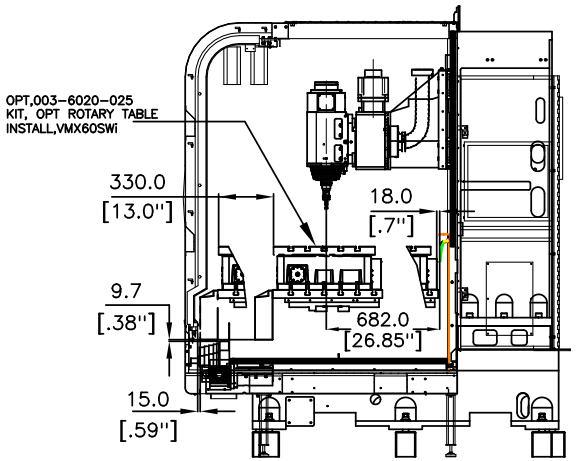


TABLE SPECIFICATIONS

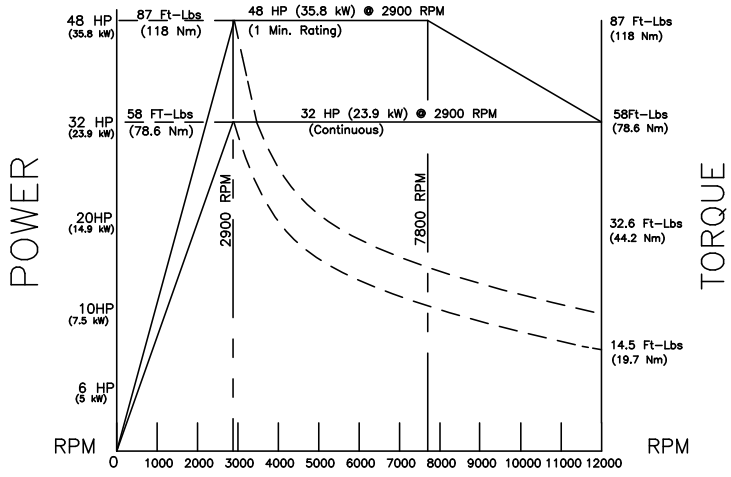
TABLE TRAVELS

INTERIOR CLEARANCES



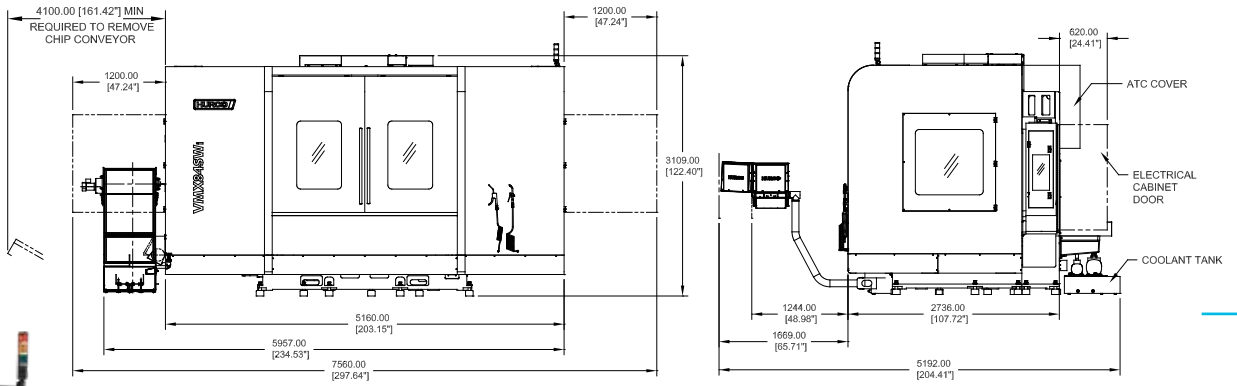


POWER & TORQUE



VMX84SWi

Huge travels and swivel head design with configurable A or C axis flexibility.





Machine Overview

- 84" x 34" x 30" travels (X, Y, Z) / B-axis swivel head travels: +/- 90°
- 12,000 RPM dual-wound Yaskawa spindle motor provides more horsepower
- 709 ipm Rapid Traverse Rates (X + Y) / 530 ipm (Z)
- Large table weight capacity (5,000 lbs with uniform distribution)
- Multiple A-axis table options available
- Larger, heavy-duty roller ways on all three axes
- Solid one-piece cast iron frame optimized with both static and dynamic Finite Element Analysis (FEA)
- Yaskawa Sigma V Digital AC Servos
- 2 or 4 passage rotary unions for hydraulics and/or air
- Electric, side-mounted, 40-Station swing-arm ATC
- Full Enclosure with wide front access doors and fully contained tool storage
- Angular encoders (B-axis)
- Pistol-style coolant and air guns
- WinMax Mill Conversational and NC Programming
- 5-axis/5-sided software features – Tool Path Linearization, Tool Center Point Management, Transform Plane, 3D Tool Compensation, Tool Vector Input & Retract, Shortest Angular Traverse, 3D Import
- Ergonomically designed MAX5 console with twin 19" LCD screens
- Robust control specifications (standard) – 2.7GHz Dual Core Processor, 4GB RAM Memory, 128GB Solid State Hard Drive
- 10,000 block look ahead (standard)
- Z-axis regenerative brake – no counterbalance

Did you know? Adopting a 5-sided machining process is the most efficient way to instantly increase the profit margin on existing jobs that you manufacture on a conventional 3-axis machine. **Learn more at Hurco.com/5Axis.**

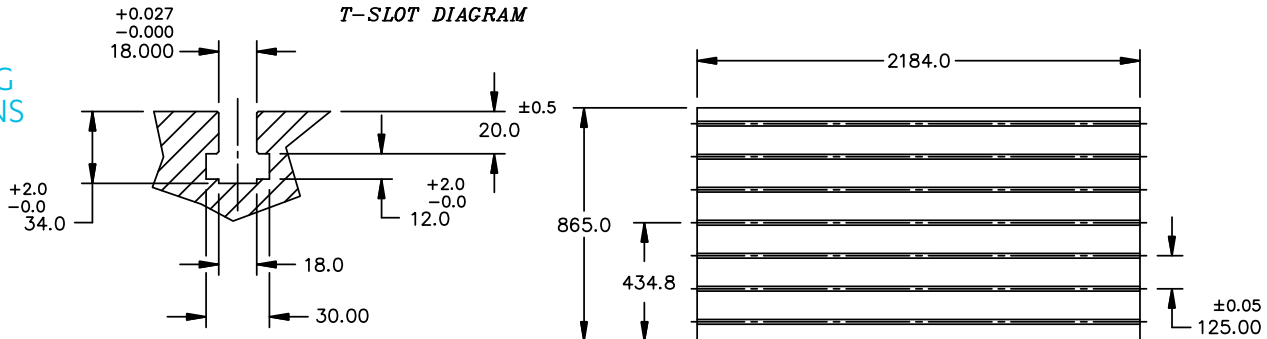
Machine specifications can be found on Pages 46-49

For more information about the Hurco Control, go to page 38.

Machines shown with options. Specifications and information may change without notice.

POWER & CAPACITY VMX84SWi

OPERATING DIMENSIONS



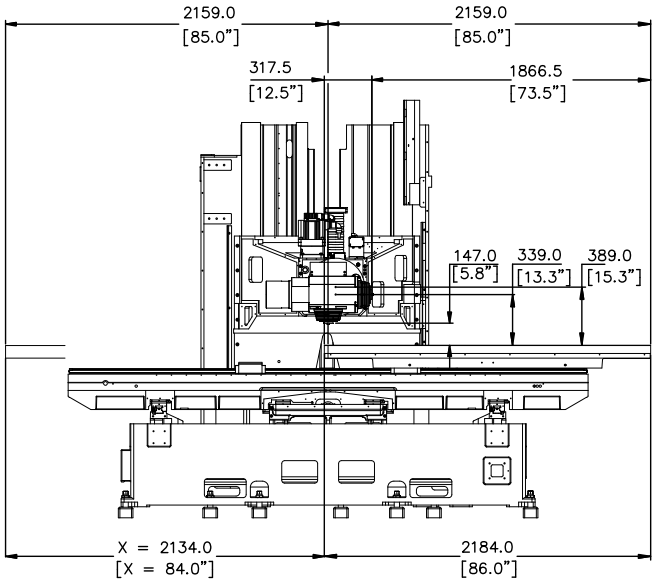
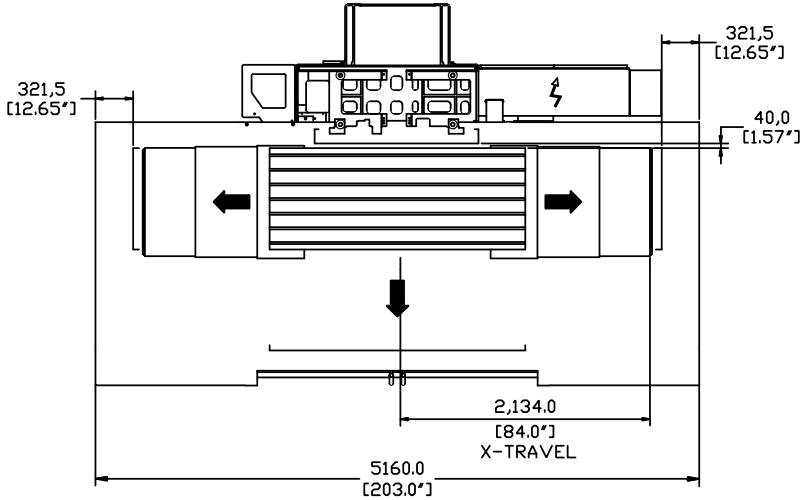


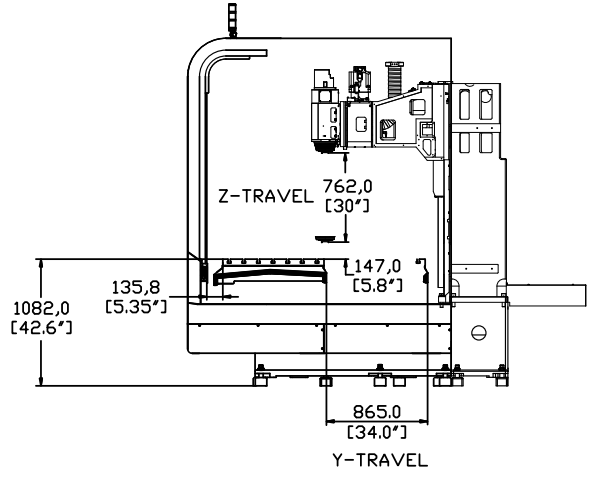
TABLE SPECIFICATIONS

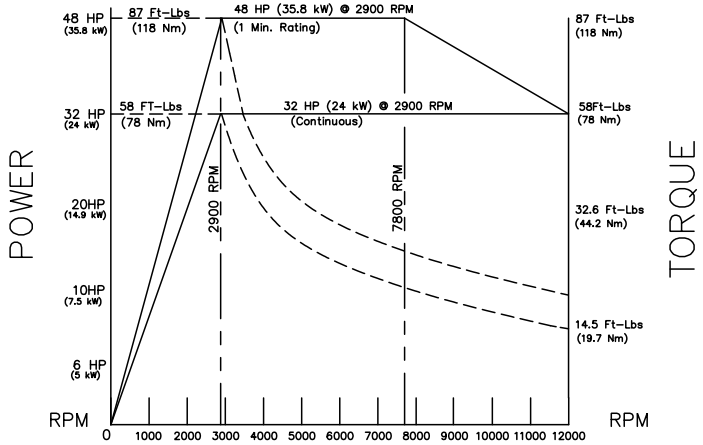
TABLE TRAVELS

INTERIOR CLEARANCES



POWER & TORQUE





Designed and built for machinists.

The MAX5 Hurco control is the epitome of user-centric design. Based on the feedback from customers who participated in multiple usability tests of the initial MAX5 console design, we made more than 80 improvements. The ergonomic design of the MAX5 combined with its industry-leading technical specifications maximize productivity, which ultimately helps our customers increase their profit margins.

Industry-Leading Control Specifications (Standard)

- 4GB RAM Memory
- 2.7 GHz Dual Core Processor
- 128GB Solid State Hard drive
- Up to 4,000 bps Processing Speed
- Up to 10,000 block look ahead



» Override knobs with convenient one-press presets



» Buttons designed with tactile cues for enhanced usability



» Adjustable-angle keypad



» Adjustable height control arm



» Flip-Out hook for hanging air nozzles + other tools



» Retractable QWERTY keyboard with trackball





» 19-inch touch screen LCD with customizable view options.



Full graphics screen



Large DRO with mini graphics



Large graphics with mini DRO

» Webcam

» Additional coolant + air controls

» Dual USB ports

» Remote jog with LCD Digital Read Out lets you store data from the pendant

» Modes such as part setup + tool setup are available from jog units with LCD option



The Industry's Most Flexible Control

- ★ Industry Standard NC
- ★ Conversational
- ★ NC/Conversational Merge

WinMax®



» Integrated flashlight



» Magnetic feet

» Flashlight toggle button

» Wireless remote jog unit option

WINMAX® CONTROL

Our control. Your expertise.

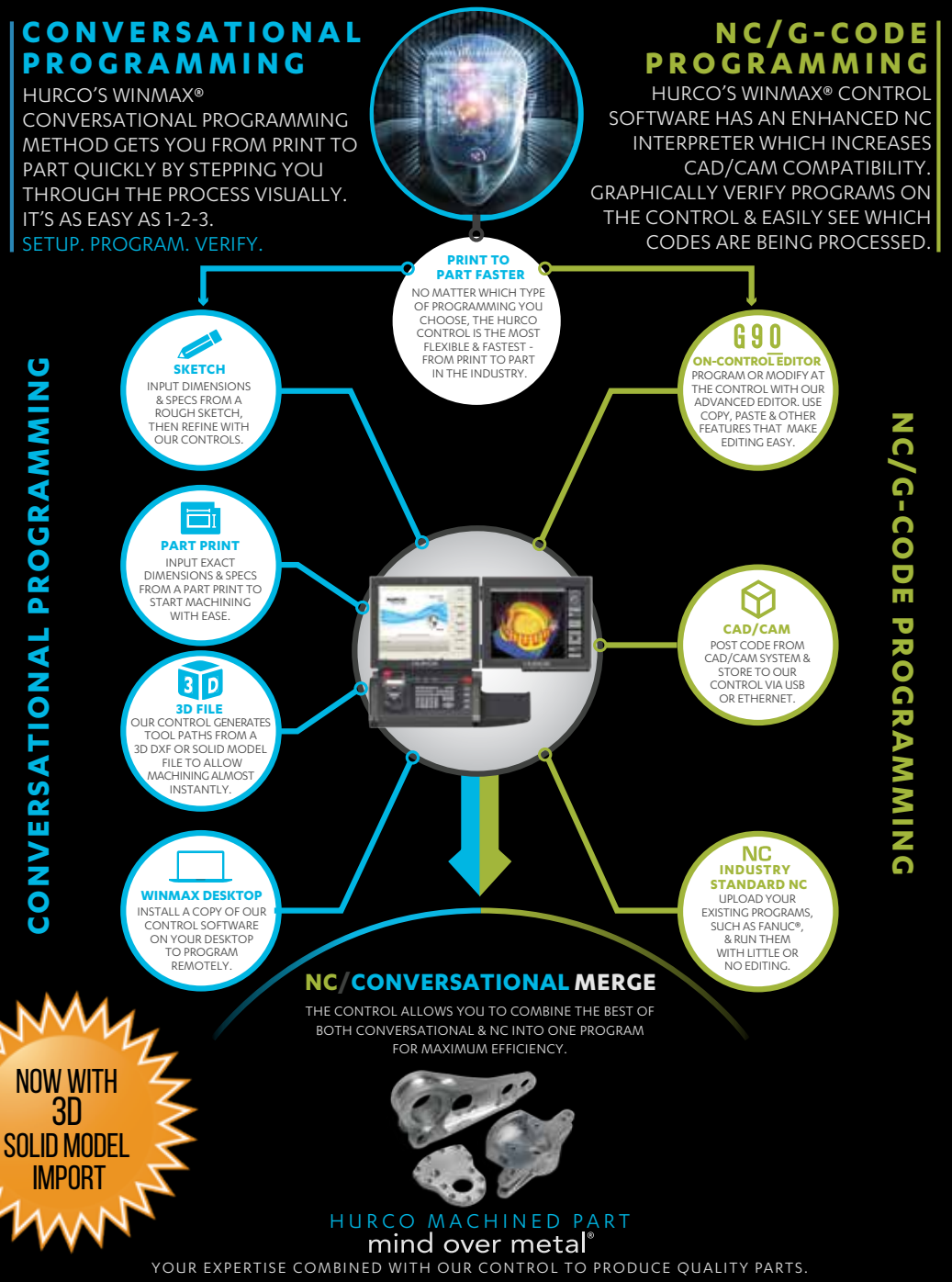
The integrated Hurco control powered by WinMax® is the most flexible and intuitive control in the industry. WinMax offers processing power and an intuitive graphical user interface that supports multiple machining strategies. Hurco Conversational Programming is the gold standard in the industry, and NC Programming includes many high-end features.

Go from print to part faster.

» **Conversational** programming simplifies complex operations. Easy to learn. Intuitive, user-friendly interface.

» **NC with ISO/EIA support** means you don't have to change a thing. Our control can do everything you're doing now and it has the processing speed and memory you need for NC.

» **NC/Conversational Merge** This Hurco feature combines the best of Industry Standard NC and Conversational. NC/Conversational Merge makes it easy to apply conversational features, such as pattern operations, scaling, tool probing, part probing, and unlimited work offsets, to existing NC programs. Patterns include loop rotate, loop translate, loop linear, loop angular, pattern locations, scale, and mirror image.



WINMAX® Software / Features

Latest Features

- 3D Import
- 3D DXF
- AdaptiPath™
- Customizable View Options
- Dynamic Variable Look Ahead capable of up to 10,000 blocks (with UltiMotion®)
- DXF Scaling
- Fast Draw Graphics Engine
- Font Magnification
- Job List
- Mill Frame with Enhanced Corner Geometry
- Multiple Options to Store Tool
- NC Work Offsets with Conversational Programming
- Probing Results
- Relative Position DRO
- Roughing Stock Allowance
- Stick Lettering
- Tool Life Management
- TrueType® Fonts Along a Contour
- User Assigned Tool Pockets
- WinMax Desktop Complete

Programming

- 4th Axis Rotary Wrap
- 99 Work Offsets (NC)
- 99 Tool Offsets (NC)
- AutoCalc
- Autosave
- Blend Arcs
- Canned Cycle Blocks
- Chamfers
- Comment Block
- Concurrent Programming
- Context Sensitive Help
- Drill/Dwell Cycles (Chip Break + Peck)
- Drilling and Boring with Inserted Drill
- DXF Transfer
- Frame Mill
- Helical Interpolation
- Hole Operations – Tap, Drill, Center Drill, Dwell and Ream
- Inch/Metric Programming
- Indexer Routine
- Industry Standard NC (ISNC)
- Language Toggle
- Lines & Arcs
- Linear Repeat
- Mirror Image
- M-Code Auxiliary Functions
- NC/Conversational Merge
- NC Editor
- NC Macro Package (NCMP)
- NC Probing Cycles
- NC Productivity Package (NCPP)
- Pattern (Scaling, Rotation, Translation)
- On-screen User Prompt
- Optional Stop
- Parts Counter
- Part Zero Shift
- Peck Mill
- Program Manager Functions
- Program Parameters
- Program Review with Cut/Copy/Paste
- Programmable Safety Zones
- Rectangular Repeat
- Rigid Tap
- Roughing Stock Allowance
- Select Surface Finish Quality (SFQ)
- Serial Number (Letter & Part Serialization)
- Slots
- Speed and Feed Edit while Running
- Swept Surface with 3D Mold
- Thread Milling
- Tool Setup and Review with Graphics
- Tool & Material Library
- Tool Change Optimization
- TrueType® Lettering Package
- UltiPocket with Helical Ramp Entry
- Unlimited Work Offsets (Conversational)

Verification

- 3D Solid Rendering
- Automatic Error Check
- Advanced Verification Graphics with
- Data Block Search
- Graphics Display (Tool Path, Solids,
- Projection in 3 Planes, Isometric)
- Graphics Error Verification
- Graphics Scaling
- Graphics Zoom
- Real Time Tool Simulation
- Wire frame graphics of part geometry with zoom. Includes error verification

Operational

- 128GB Solid State Hard Drive
- 2.7 GHz Dual Core Processor
- 4GB RAM Memory
- Auto Interrupt Cycle
- Automatic Tool Home
- Control and Machine Diagnostics
- Coolant Select (Dual)
- Distance To Go
- Estimated Run Time
- Feed Hold Button
- Feedrate Override
- Inch/Metric Toggle
- Programmable Feedrate
- Spindle Load Monitor
- UltiMonitor®
- UltiMotion®



5-Axis

- 3D Tool Compensation
- Automatic Safe Repositioning
- Rotary Axes Centerline Probing
- Shortest Angular Traverse
- Tool Center Point Management
- Tool Path Linearization
- Transform Plane
- Tool Vector Canned Cycles
- Tool Vector Input & Retract
- Universal Rotary

New Feature:

3D Import with 3D DXF Technology

Hurco's 3D Import feature includes 3D DXF technology that now displays all CAD geometry, including splines and Z-depths.

- Integrated CAD/CAM and tool path simulation
- No need to enter feature dimensions – simply click and cut
- Transform Planes created automatically for easy 5-sided conversational programming – no data entry required

Lathe

- Auto Tool Nose Radius Compensation
- Bar Feed Cycle Blocks
- Bar Puller Data Block
- Constant Surface Speed, Selectable
- Cutoff Cycle Blocks
- Diameter/Radius Programming Modes
- Drill Tip Compensation
- Grooving Cycle- chamfer, radius, or square corners with ability to taper the groove walls from the on-screen menu
- ID/OD Profile Turning with face, turn, taper, arc with blend arcs or chamfers between elements
- Internal/External Chucking
- Lead-in and out angles, multi-start, constant or decreasing depth of cut.
- Thread Cycle Blocks – inside or outside(straight or tapered)
- Thread Repair
- Turret Index Control (Auto/Manual)

3D IMPORT CONTROL

With the addition of 3D Import to the Hurco control, you can go from "solid to part" seamlessly – eliminating the need for extra steps.



Hurco engineers have invented 3D Import, which includes 3D DXF technology that displays all geometry that the CAD system outputs, including splines. With 3D DXF, simply select the bottom of a contour, and the Z-axis depths will also be automatically input into the conversational block.

While conversational programming is the cornerstone of the Hurco control, it is equally powerful for NC as it is conversational. Additionally, Hurco's exclusive NC/Conversational Merge feature gives you the best of both programming methods. An often overlooked benefit of the Hurco control is the powerful specifications that come standard. The Hurco control is equipped with the most robust technical specifications of any control on the market. For example, the Hurco MAX5 control comes with 4GB RAM Memory, a 2.7 GHz Dual Core Processor, a 128GB Solid State Hard Drive, up to 4,000 bps processing speed, and up to 10,000 block look ahead due to Hurco's patented UltiMotion feature.

GET THE BOOK TODAY!
THE POWER of FIVE
The Definitive Guide to 5-Axis Machining
by **Michael Cope**



UNLEASH YOUR TRUE POTENTIAL WITH

HURCO 5-AXIS

If you've spent any amount of time in manufacturing, you know that efficiency matters. Michael Cope, the author of *The Power of FIVE: The Definitive Guide to 5-Axis Machining* was co-owner of a job shop before joining Hurco. As a machinist and applications engineer, he always evaluates the most efficient way to approach a part to minimize setup time and reduce cycle time. It's just part of his DNA. That's precisely why he is such a proponent of 5-axis CNC. Adopting a 5-sided machining process is the most efficient way to instantly increase the profit margin on existing jobs that you manufacture on a conventional 3-axis machine. In this book, Mike breaks down the information about 5-axis and 5-sided machining from a machinist's perspective. Whether you're just learning about 5-axis machining or you're already adept at 5-axis, you'll learn something new. A great go-to book written for machinists by a machinist.

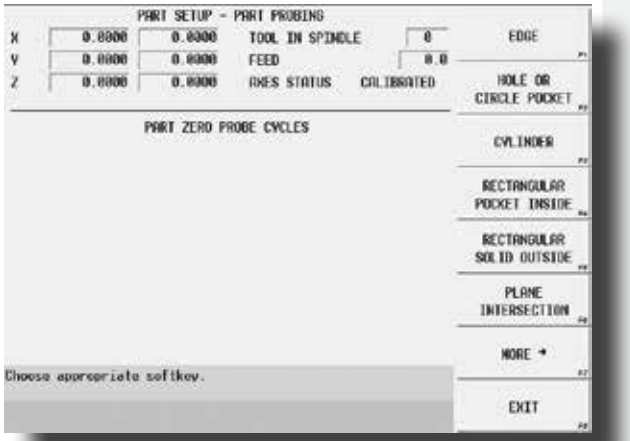
HURCO.COM/5AXIS

PART & TOOL PROBING

Why spend 30 minutes aligning your part to the machine when you can align the machine to the part in just 30 seconds with Hurco Conversational Probing?

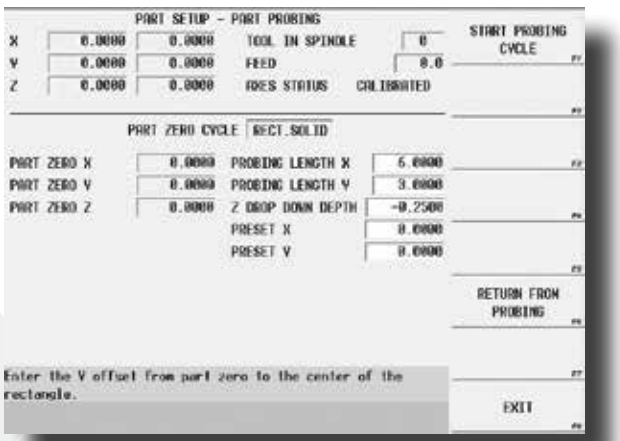
```
N300
M1(TEST 3-CALIBRATE "Z" AXIS-UPDATE-)
(PROBE TOOL OFFSET NUMBER)
(PROTECTED POSITION OVER Z SURFACE)
(MEASURE TOP SURFACE-Z DATUM)
(Protected Positioning Move)
G65 P9810 X1.49Y-4.1F100
G65 P9811 Z-.167 W1
#100=#137
G90G31Z1.
N400
M1(TEST 4-MEASURE CENTER OF RECT POCKET)
(STORED IN WORK OFFSET 57)
(Position over pocket)
G90 G31 X4.65 Y-1.85 F100
(Protected Position Move)
G91 G65 P9810 Z-.167 F100.
(Measure Pocket in X Y Place in G57 Offset)
G65 P9812 X1.75 W1
G65 P9812 Y1.75 W1
G90G31Z1.
```

If you don't have Hurco conversational probing, this is an example of the NC Macros you will need to navigate. Difficult to look at, not to mention time consuming, since you have to enter all kinds of information to make the macro program useful.



This is the Hurco MAX5 screen that shows all the probing cycles available: Edge, Hole or Circle Pocket, Cylinder, Rectangular Pocket Inside, Rectangular Solid Outside, Plane Intersection, Slot Inside, Web Outside.

It's really this easy



This is an example of how easy it is to probe a Rectangular Solid. Simply enter the dimensions of the part in X & Y, add the drop down distance, and press START PROBING CYCLE softkey.

» *Machinist's Favorite: Hurco Skew Probe Cycles*

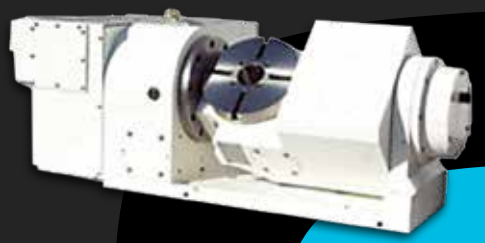
Part Skew Probe Cycles allow the operator to probe a part for skew, which eliminates the need to indicate large parts straight before running the program. The Skew cycle will "skew" the program to match the skewed angle of the part on the table.
List of Skew Cycles: Edge, Hole or Circle Pocket, Cylinder, Rectangular Pocket Inside, Rectangular Solid Outside, Two Point Edge.

ACCESSORIES

» Rotary tables to expand your capabilities.

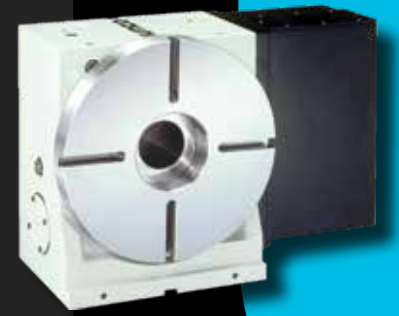
Rotary/Tilt Tables

Model	Table Dia	ThruHole Dia	Table Height	Center Height	Accuracy		Repeatability	Clamping Force		Max Load	
					Rot	Tilt	Rot	Rot	Tilt	Horz	Vert
HT 100	110 mm	30 mm	207 mm	150 mm	30 sec	60 sec	±2 sec	235 Nm	235 Nm	35 Kg	20 Kg
HT 200	200 mm	30 mm	270 mm	210 mm	25 sec	50 sec	±2 sec	490 Nm	833 Nm	100 Kg	50 Kg
HT 250	250 mm	70 mm	300 mm	225 mm	15 sec	60 sec	±2 sec	588 Nm	1,176 Nm	100 Kg	60 Kg
HT 320	320 mm	110 mm	350 mm	255 mm	15 sec	30 sec	±2 sec	1,392 Nm	1,392 Nm	200 Kg	100 Kg



Rotary Tables

Model	Table Dia	ThruHole Dia	Table Height	Center Height	Accuracy	Repeatability	Clamping Force	Max Load	
								Horz	Vert
H 160	165 mm	39.8 mm	185 mm	140 mm	25 sec	±2 sec	245 Nm	160 Kg	80 Kg
H 200	200 mm	39.8 mm	185 mm	140 mm	25 sec	±2 sec	245 Nm	160 Kg	80 Kg
H 250	250 mm	70 mm	220 mm	180 mm	25 sec	±2 sec	441 Nm	300 Kg	125 Kg
H 320	320 mm	70 mm	220 mm	210 mm	25 sec	±2 sec	441 Nm	300 Kg	125 Kg
H 400	400 mm	150 mm	250 mm	250 mm	15 sec	±4 sec	902 Nm	500 Kg	300 Kg
H 500	500 mm	180 mm	290 mm	310 mm	15 sec	±4 sec	1,225 Nm	350 Kg	600 Kg
H 630	630 mm	254 mm	320 mm	400 mm	15 sec	±4 sec	3,432 Nm	400 Kg	800 Kg





Rotary Accessories



Power Tail Supports



Tail Stocks



3-Jaw Scroll Chucks

STANDARD & OPTIONAL ITEMS	BX 40Ui	VC 500i	VCX 600i	VM 10Ui	VM 10UHSi	VMX 30Ui	VMX 30UHSi	VMX 42Ui	VMX 42UHSi	VMX 60Ui	VTXUi	VMX 42SRTi	VMX 60SRTi	VMX 42HSRTi	VMX 42SWi	VMX 60SWi	VMX 84SWi
AC spindle motor	S	S	S	S	S	—	S	—	S	—	—	S	S	S	S	S	S
Dual wound AC spindle motor	—	—	—	—	—	S	—	S	—	S	S	—	—	—	—	—	—
Liquid-cooled integral spindle	—	S	S	—	—	—	—	—	—	—	—	S	S	—	S	S	S
High speed, liquid-cooled integral spindle	S	—	—	—	S	—	S	—	S	—	—	—	—	S	—	—	—
High-torque package	—	—	—	—	—	O	—	O	—	O	—	O	—	—	—	—	—
High-speed spindle option	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Advanced motion control with AC brushless servos	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Direct drive Z-axis (no counterbalance)	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Spindle thermal chiller	S	S	S	S	S	O	S	O	S	O	O	S	S	S	S	S	S
LCD Remote Jog*	S	O	S	O	O	S	S	S	S	S	S	S	S	S	S	S	S
Fine grain, all cast frame designed with FEA	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Heavy duty linear rails with roller bearings	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Double-nut ball screws	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Pretensioned ball screws	S	S	S	—	—	S	S	S	S	S	S	S	S	S	S	S	S
Linear glass scales X, Y, and Z axis	S	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Integrated trunnion table	S	S	S	S	S	S	S	S	S	S	S	—	—	—	—	—	—
Rotary table (A-axis)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	O	O	O
Higher resolution encoders (A/C or B/C axis)	O	—	—	O	O	O	O	O	O	O	O	—	—	—	—	—	—
Rotary union kit (rotary table pass thru)	O	O	O	—	—	O	O	O	O	O	O	O	O	O	O	O	O
Automatic central lubrication system	S	S	—	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Way lube separation system	S	S	—	S	S	S	S	S	S	S	S	S	S	S	S	S	S
ANSI door interlock (B11.23)	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Work end signal light	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Automatic swing-arm tool changer	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Optional capacity tool changer	O	—	—	—	—	—	—	—	—	—	O	—	—	—	—	—	—
Chip auger	—	S	—	S	S	—	—	—	—	—	—	—	—	—	—	—	—
Lift-up chip conveyor	S	O	S	O	O	S	S	S	S	S	S	S	S	S	S	S	S
Enclosure washdown system	S	S	S	—	—	S	S	S	S	S	S	S	S	S	S	S	S
Flood coolant, spray & air guns	S	O	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Coolant ring/positional nozzles	S	S	S	—	—	S	S	S	S	S	S	S	S	S	S	S	S
Programmable air blow	—	—	—	—	—	S	—	S	—	S	S	—	—	—	—	—	—
Coolant thru spindle/300 psi	S	O	O	O	—	O	O	O	O	O	O	O	O	O	O	O	O
Over-sized, hinged side access door(s)	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
LED worklight(s)	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Power cabinet heat exchanger	S	S	S	—	—	S	S	S	S	S	S	S	S	S	S	S	S
Air conditioner	O	O	O	S	S	O	O	O	O	O	O	O	O	O	O	O	O
Renishaw part & tool probing	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

S = Standard
O = Option
— = Not Applicable

*All VM Series Machines are equipped with the basic remote jog. The LCD Remote Jog available as an option.

SPECIFICATIONS

		BX40Ui	VC500i	VCX600i	VM10Ui
CAPACITY	Table size	13.7 in / 348 mm diameter	19.7 in / 500 mm diameter	23.6 in / 600 mm diameter	7.8 in / 198 mm diameter
	Max. weight on machine table	—	—	—	—
	Max. weight on rotary/ trunnion table	551 lbs / 250 kg	550 lbs / 250 kg	770 lbs / 350 kg	330 lb / 150 kg
	Spindle nose to table min / max	3.5 in (89 mm) / 25.7 in (653 mm)	5.9 in (150 mm) / 21.7 in (550 mm)	5.9 in (150 mm) / 24.9 in (633 mm)	1.4 in (36 mm) / 20.4 in (519 mm)
	Table t-slots	6 x 0.55 in / 6 x 14 mm	3.9 in / 100 mm	3.9 in / 100 mm	6 x .39 in / 6 x 10 mm
TRAVEL	X-axis	37.4 in / 950 mm	20.5 in / 520 mm	24.4 in / 620 mm	21 in / 533 mm
	Y-axis	21.6 in / 549 mm	17.7 in / 450 mm	20.5 in / 520 mm	16 in / 406 mm
	Z-axis	19.7 in / 500 mm	15.8 in / 400 mm	18.1 in / 460 mm	19 in / 483 mm
	A-axis	—	—	—	+30° / -110°
	B-axis	-30° / +110°	-110° / +110°	-110° / +110°	—
	C-axis	360°	360°	360°	360°
SPINDLE	Max. spindle speed / tool type	18,000 rpm / HSK 63	12,000 rpm / CAT 40	12,000 rpm / CAT 40	12,000 rpm / CAT 40 / Big Plus
	Spindle power (peak)	47 hp / 35 kW	17.4 hp / 13 kW	21.4 hp / 16 kW	15 hp / 11.2 kW @ 1,740 rpm
	Spindle torque (peak)	88 ft lbs / 119 Nm	60.5 ft lbs / 82 Nm	80.2 ft lbs / 108.7 Nm	45 ft lbs / 61 Nm
ATC	Tool capacity	30	30	40	20
	Max. tool diameter	3 in / 76 mm	3.1 in / 80 mm	2.95 in / 75 mm	3.5 in / 89 mm
	Max. tool length	11.8 in / 300 mm	9.8 in / 250 mm	11.8 in / 300 mm	9.8 in / 250 mm
	Tool to tool ATC time	1.5 sec	2.5 sec	2 sec	2.5 sec
	Max. tool weight	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 in / 7 kg	15.4 lb / 7 kg
FEEDRATE	Rapid Traverse XYZ per minute	XY= 1,417 in / 36 m	XY= 945 / 24m	XY= 1,417 in /36 m	XY= 945 in / 24 m
		Z= 1,417 in / 36 m	Z= 945 / 24 m	Z= 1,417 in /36 m	Z= 945 in / 24 m
	Prog. feedrate per minute	1,417 in / 36 m	945 in / 24 m	984 in / 25 m	945 in / 24 m
	A-axis max. RPM	—	—	—	25 rpm
	B-axis max. RPM	25 rpm	50 rpm	25 rpm	—
	C-axis max. RPM	25 rpm	100 rpm	25 rpm	25 rpm
	Power rating/full load KVA	51 KVA	34 KVA	39 KVA	14 KVA
	Machine weight	20,062 lbs / 9,100 kg	18,520 lbs / 8,400 kg	19,400 lbs / 8,800 kg	7,392 lbs / 3360 kg

Information may change without notice. Optimum machine performance is reliant upon installation conditions at the facility, such as power supply, air supply, and ambient air conditions.

SPECIFICATIONS

		VM10UHSi	VMX30Ui	VMX30UHSi	VMX42Ui
CAPACITY	Table size	7.8 in / 198 mm	9.8 in / 248 mm	9.8 in / 248 mm	13.7 in / 348 mm
	Max. weight on machine table	—	—	—	—
	Max. weight on rotary/ trunnion table	330 lb / 150 kg	440 lb / 200 kg	440 lb / 200 kg	550 lb / 250 kg
	Spindle nose to table min / max	1.4 in (36 mm) / 20.4 in (519 mm)	3.5 in (90 mm) / 24 in (610 mm)	3.5 in (90 mm) / 24 in (610 mm)	3.5 in (90 mm) / 24 in (610 mm)
	Table t-slots	6 x .39 in / 6 x 10 mm	6 x .48 in x 60°/ 6 x 12 mm x 60°	6 x .48 in x 60° / 6 x 12 mm x 60°	6 x .56 in x 60° / 6 x 14 mm x 60°
TRAVEL	X-axis	21 in / 533 mm	30 in / 762 mm	30 in / 762 mm	42 in / 1067 mm
	Y-axis	16 in / 406 mm	20 in / 508 mm	20 in / 508 mm	24 in / 610 mm
	Z-axis	19 in / 483 mm	20.5 in / 520 mm	20.5 in / 520 mm	20.5 in / 520 mm
	A-axis	+30° / -110°	+30° / -110°	+30° / -110°	+30° / -110°
	B-axis	—	—	—	—
	C-axis	360°	360°	360°	360°
SPINDLE	Max. spindle speed / tool type	20,000 rpm / BT30	12,000 rpm / CAT, BT, DIN 40	18,000 rpm / HSK63	12,000 rpm / CAT, BT, DIN 40
	Spindle power (peak)	11.4 hp / 8.5 kW @ 14,700 rpm	18 hp / 13.4 kW@ 600 rpm	47 hp / 35 kW @ 2,800 rpm	24 hp / 18 kW @ 720 rpm
	Spindle torque (peak)	4.4 ft lbs / 5.9 Nm	158 ft lbs / 214 Nm	88 ft lbs / 119 Nm	175 ft lbs / 237 Nm
ATC	Tool capacity	20	40	40	40
	Max. tool diameter	2.4 in / 60 mm	3.0 in / 76 mm	(40) 3.0 in , 75mm	3 in / 76 mm
	Max. tool length	9.8 in / 250 mm	11.8 in / 300 mm	11.8 in / 300 mm	11.8 in / 300 mm
	Tool to tool ATC time	2.5 sec	2 sec	1.5 sec	2 sec
	Max. tool weight	11 lb / 5 kg	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg
FEEDRATE	Rapid Traverse XYZ per minute	XY= 945 in / 24 m	XY= 1,496 in / 38 m	XY= 1,771 in / 45 m	XY= 1,496 in / 38 m
		Z= 945 in / 24 m	Z= 1,260 in / 32 m	Z= 1,575 in / 40 m	Z= 1,260 in / 32 m
	Prog. feedrate per minute	945 in / 24 m	1,260 in / 32 m	1,575 in / 40 m	1,260 in / 32 m
	A-axis max. RPM	25 rpm	25 rpm	25 rpm	25 rpm
	B-axis max. RPM	—	—	—	—
	C-axis max. RPM	25 rpm	25 rpm	25 rpm	25 rpm
	Power rating/full load KVA	15 KVA	23 KVA	48 KVA	31 KVA
	Machine weight	6,825 lbs / 3102 kg	11,640 lbs / 5280 kg	11,640 lbs / 5280 kg	15,840 lbs / 7,200 kg

Information may change without notice. Optimum machine performance is reliant upon installation conditions at the facility, such as power supply, air supply, and ambient air conditions.

SPECIFICATIONS

		VMX42UHSi	VMX60Ui	VTXUi	VMX42SRTi	VMX60SRTi
CAPACITY	Table size	13.7 in / 348 mm	19.7 in / 500 mm	23.6 x 19.7 in / 610 x 530 mm	50 x 24 in / 1270 x 610 mm	66 x 26 in / 1676 x 660 mm
	Max. weight on machine table	—	—	1,100 lb / 500 kg	3,000 lb / 1360 kg	3,000 lb / 1360 kg
	Max. weight on rotary/ trunnion table	550 lb / 250 kg	880 lb / 400 kg	—	1,100 lb / 500 kg	1,100 lb / 500 kg
	Spindle nose to table min/ max	2.2 in (56 mm) / 22.7 in (576 mm)	3.5 in (90 mm) / 24 in (610 mm)	5.9 in (150 mm) / 26 in (660 mm)	.4 in (10 mm) / 24.4 in (620 mm)	.5 in (13 mm) / 24.5 in (622 mm)
	Table t-slots	6 x .56 in x 60° / 6 x 14 mm x 60°	5 x .71 in / 5 x 18 mm	5 x .71 in / 5 x 18 mm	5 x .71 in / 5 x 18 mm	5 x .71 in / 5 x 18 mm
TRAVEL	X-axis	42 in / 1067 mm	60 in / 1524 mm	31.5 in / 800 mm	42 in / 1,067 mm	60 in / 1,524 mm
	Y-axis	24 in / 610 mm	26 in / 660 mm	27.6 in / 700 mm	24 in / 610 mm	26 in / 660 mm
	Z-axis	20.5 in / 520 mm	20.5 in / 520 mm	20 in / 510 mm	24 in / 610 mm	24 in / 610 mm
	A-axis	+30° / -110°	+30° / -110°	+30° / -110°	—	—
	B-axis	—	—	—	+/-90 °	+/-90 °
	C-axis	360°	360°	360°	360°	360°
SPINDLE	Max. spindle speed / tool type	18,000 rpm / HSK63	12,000 rpm / CAT, BT, DIN 40	12,000 rpm / CAT, BT, DIN 40	12,000 rpm / CAT, BT, DIN 40	12,000 rpm / CAT, BT, DIN 40
	Spindle power (peak)	47 hp / 35 kW @ 2,800 rpm	24 hp / 18 kW @ 720 rpm	24 hp / 18 kW @ 720 rpm	48 hp / 36.5 kW @ 2,900 rpm	48 hp / 36.5 kW @ 2,900 rpm
	Spindle torque (peak)	88 ft lbs / 119 Nm	175 ft lbs / 237 Nm	175 ft lbs / 237 Nm	87 ft lbs / 118 Nm	87 ft lbs / 118 Nm
ATC	Tool capacity	40	40	48 or 96	40	40
	Max. tool diameter	3.0 in / 76 mm	3 in / 76 mm	2.95 in / 75 mm	3 in / 76 mm	2.95 in / 75 mm
	Max. tool length	11.8 in / 300 mm	11.8 in / 300 mm	11.0 in / 280 mm	9.8 in / 249 mm	9.8 in / 250 mm
	Tool to tool ATC time	1.5 sec	2 sec	3 sec	4 sec	4 sec
	Max. tool weight	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg
FEEDRATE	Rapid Traverse XYZ per minute	XY= 1,771 in / 45 m	XY= 1,260 in / 32 m	XY= 1,378 in / 35 m	XY= 1,496 in / 38 m	XY= 1,260 in / 32 m
		Z= 1,575 in / 40 m	Z= 945 in / 24 m	Z= 1,378 in / 35 m	Z= 1,260 in / 32 m	Z= 945 in / 24 m
	Prog. feedrate per minute	1,575 in / 40 m	945 in / 24 m	1,378 in / 35 m	1,260 in / 32 m	945 in / 24 m
	A-axis max. RPM	25 rpm	16.6 rpm	16.6 rpm	—	—
	B-axis max. RPM	—	—	—	90 rpm	90 rpm
	C-axis max. RPM	25 rpm	20.8 rpm	16.6 rpm	100 rpm	100 rpm
	Power rating/full load KVA	50 KVA	34 KVA	38 KVA	68 KVA	69 KVA
	Machine weight	15,840 lbs / 7,200 kg	18,800 lbs / 8,545.5 kg	48 sta. 27,560 lbs / 12,500 kg 96 sta. 28,600 lbs / 13,000 kg	18,520 lbs / 8,400 kg	20,000 lbs / 9,091 kg

Information may change without notice. Optimum machine performance is reliant upon installation conditions at the facility, such as power supply, air supply, and ambient air conditions.

SPECIFICATIONS

		VMX42HSRTi	VMX42SWi	VMX60SWi	VMX84SWi
CAPACITY	Table size	50 x 24 in / 1,270 x 610 mm	50 x 24 in / 1,270 x 610 mm	66 x 26 in / 1,676 x 660 mm	86 x 34 in / 2,184 x 865 mm
	Max. weight on machine	3,000 lb / 1,360 kg	3,000 lb / 1,360 kg	3,000 lb / 1,360 kg	5,000 lb / 2,268 kg
	Max. weight on rotary/ trunnion table	1100 lb / 500 kg	—	—	5.8 in (147 mm) / 35.8 in (909 mm)
	Spindle nose to table min / max	.1 in (25 mm) / 24.1 in (612 mm)	6 in (152 mm) / 30 in (762 mm)	4 in (102 mm) / 28 in (711 mm)	5 in (127 mm) / 35 in (889 mm)
	Table t-slots	5 x .71 in / 5 x 18 mm	5 x .71 in / 5 x 18 mm	6 x .71 in / 6 x 18 mm	7 x .71 in / 7 x 18 mm
TRAVEL	X-axis	42 in / 1,067 mm	42 in / 1,067 mm	60 in / 1,524 mm	84 in / 2,134 mm
	Y-axis	24 in / 610 mm	24 in / 610 mm	26 in / 660 mm	34 in / 865 mm
	Z-axis	24 in / 610 mm	24 in / 610 mm	24 in / 610 mm	30 in / 762 mm
	A-axis	—	—	—	—
	B-axis	+/-90°	+/-90°	+/-90°	+/-90°
	C-axis	360°	—	—	—
SPINDLE	Max. spindle speed / tool type	18,000 rpm / HSK63	12,000 rpm / CAT, BT, DIN 40	12,000 rpm / CAT, BT, DIN 40	12,000 rpm / CAT, BT, DIN 40
	Spindle power (peak)	47 hp / 35 kW @ 2,800 rpm	48 hp / 36.5 kW @ 2,900 rpm	48 hp / 36.5 kW @ 2,900 rpm	48 hp / 36.5 kW @ 2,900 rpm
	Spindle torque (peak)	88 ft lbs / 119 Nm	87 ft lbs / 118 Nm	87 ft lbs / 118 Nm	87 ft lbs / 118 Nm
ATC	Tool capacity	40	40	40	40
	Max. tool diameter	3.0 in / 76 mm	3 in / 76 mm	3 in / 76 mm	3.0 in / 76 mm
	Max. tool length	9.8 in / 250 mm	9.8 in / 250 mm	9.8 in / 250 mm	11.8 in / 300 mm
	Tool to tool ATC time	2 sec	2 sec	2 sec	2.5 sec
	Max. tool weight	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg	15.4 lb / 7 kg
FEEDRATE	Rapid Traverse XYZ per minute	XY= 1,771 in / 45 m	XY= 1,496 in / 38 m	XY= 1,260 in / 32 mm	XY= 709 in / 18 m
		Z= 1,575 in / 40 m	Z= 1,260 in / 32 m	Z= 945 in / 24 mm	Z= 530 in / 13.5 m
	Prog. feedrate per minute	1,575 in / 40 m	1,260 in / 32 m	945 in / 24 m	530 in / 13.5 m
	A-axis max. RPM	—	—	—	—
	B-axis max. RPM	50 rpm	90 rpm	90 rpm	33.3 rpm
	C-axis max. RPM	100 rpm	—	—	—
	Power rating/full load KVA	70 KVA	56 KVA	54 KVA	54 KVA
	Machine weight	16,640 lbs / 7,550 kg	15,686 lbs / 7,130 kg	19,074 lbs / 8,670 kg	36,806 lbs / 16,730 kg

Information may change without notice. Optimum machine performance is reliant upon installation conditions at the facility, such as power supply, air supply, and ambient air conditions.

A History of Innovation

Hurco has been advancing the manufacturing industry for over 50 years. From the first computer controlled back gauge in 1969 to our patented UltiMotion system, we are dedicated to technology innovation that makes manufacturing more efficient and manufacturing companies more profitable.



1968 Hurco founded by Edward Humston and Gerald Roch

1969 First product introduced (Autobend). Hurco exhibits first computer controlled back gauge.



1971 Hurco becomes publicly held company (Nasdaq: HURC)

1974 Hurco demonstrates first computer numerically controlled (CNC) mill at IMTS

1976 Hurco invents Conversational Programming

1978 First CNC mill Introduced (KM1)



1979 Hurco Europe established

1984 UltiMax control introduced



1986 BMC machining centers introduced



1987 UltiMax 2 control introduced



1988 Hurco Germany established

1991 Hurco France established

Hurco Southeast Asia established

Hurco opens new international headquarters



UltiMax 3 control introduced

1992 DXF Transfer invented

1995 IMS Technologies established to oversee patent licensing

1996 MAX single-screen control introduced



1997 VMX machining centers introduced

HURCO®

mind over metal®

1998

UltiMax 4 control introduced



1999

Hurco Italy established

Hurco Manufacturing Ltd established

2000

WinMax Desktop software released



2003

VM machining centers introduced



First Hurco 5-axis machine introduced



2004

TM turning centers introduced



2005

Record sales

2006

WinMax control software released



TMM turning centers with live tooling introduced

SR 5-axis machining centers introduced

Record sales

2008

Hurco India established

TMX turning centers introduced

U-Series 5-Axis machining centers expanded

DCX double column machining centers introduced



2010

TM and TMX Series expanded to include heavy-duty turning and multi-axis



Hurco invents UltiMotion®

Hurco China established

2012

Global rebranding initiative launched

New “i” series machine design introduced

HSi high speed machining centers introduced

SRTi 5-axis machines introduced



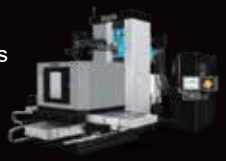
2013

Hurco acquires LCM

USA machine assembly operation established

2014

HBMXi boring mills introduced



2015

MAX5 control introduced



Hurco acquires Milltronics and Takumi

2016

Record sales

BXi machining centers introduced



3D print head introduced



2017

HM horizontal machining centers introduced



Record sales

2018

50th Anniversary

Nasdaq Closing Bell Ceremony



Record sales

HURCO.com

MACHINING CENTERS / TURNING CENTERS / 5-AXIS / DOUBLE COLUMN / BORING MILLS

HURCO NORTH AMERICA
A DIVISION OF HURCO COMPANIES, INC.

HURCO CORPORATE HEADQUARTERS
ONE TECHNOLOGY WAY / P. O. BOX 68180
INDIANAPOLIS, IN 46268-0180
800.634.2416

© 2019 Hurco Companies, Inc. Printed in USA.
Information may change without notice.
Company and product names mentioned herein are trademarks of their respective companies.
704-3001-047 Rev. E T497|03.19|HP.2k