KITAMURA® Machining Challenges-Simplified®

HORIZONTAL MACHINING CENTERS

MYCENTER® G SERIES

DESIGNED for . . .

Flexibility to produce parts with optimum efficiency and precision . . .

The **Horizontal G Series** is the culmination of excellence in the manufacture of high-performance machine tools that spans over 83 years. This dedication to excellence is grounded in our principles of relentless innovation, state-of-the-art manufacturing techniques and facilities and an unwavering commitment to absolute customer satisfaction.

Kitamura **G Series Horizontal Machining Centers** provide these important benefits:

- Made in Japan quality
- Designed using advanced materials with ultra-high precision techniques
- Space saving footprints
- Operator convenience and ease of use
- High speed processing Arumatik®-Mi CNC Controller

Mycenter-HX800G

Supercell-300G

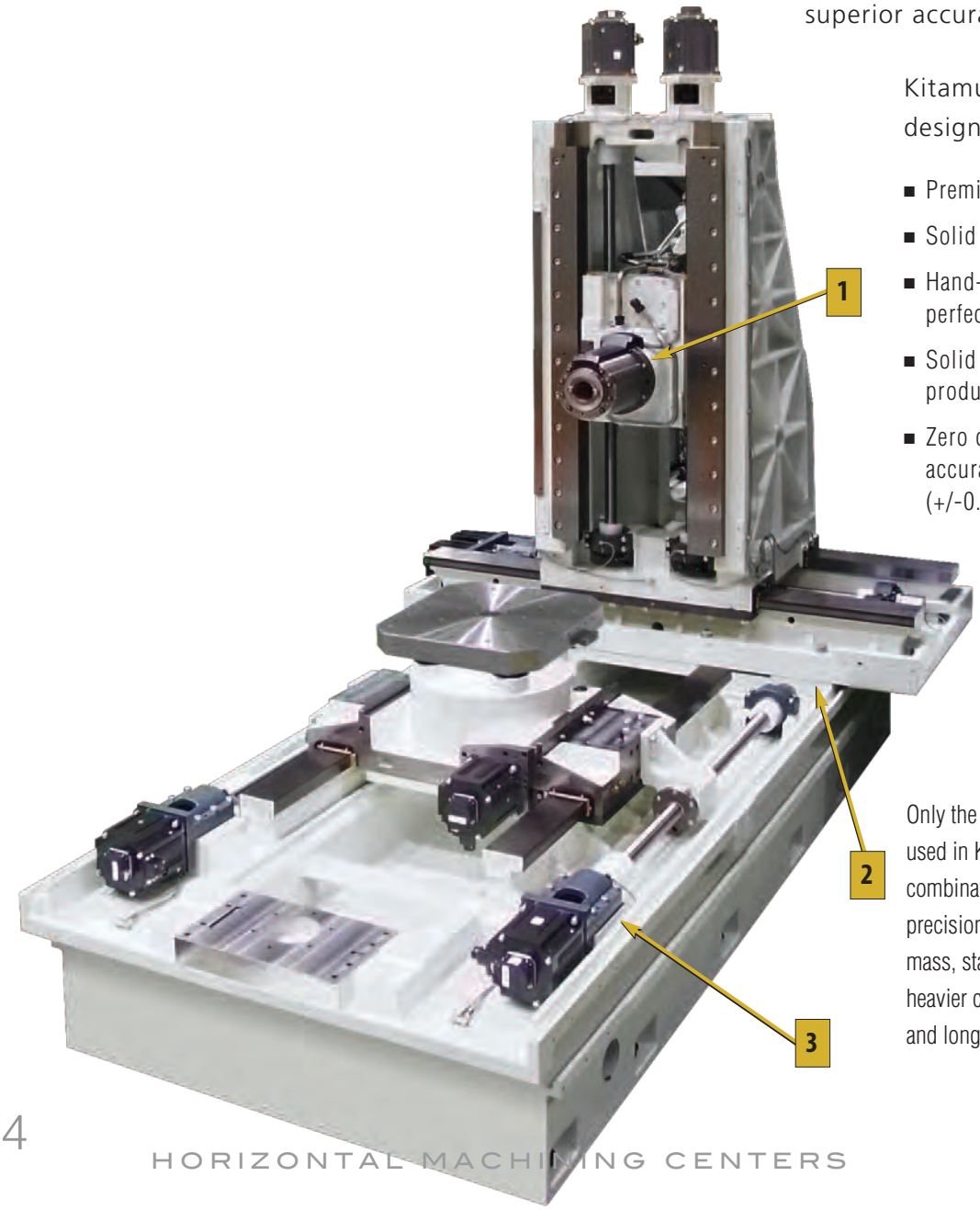
Unmanned machining

Mycenter-HX250G

Meticulously **ASSEMBLED** from the Ground Up

Assurance for long-lasting performance

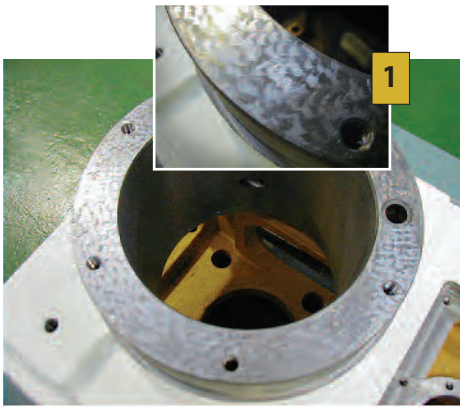
Mycenter G Series Machining Centers are built on the Kitamura premise of TGA (True Geometric Accuracy). Our machines are designed and built to the highest standards - no shortcuts. Premium grade castings are meticulously hand-scraped and assembled to assure final fit and finish unmatched in the industry. Result. Perfect parallelism and perpendicularity that are so crucial for heavy-duty cutting performance, superior accuracy and long-term reliability.



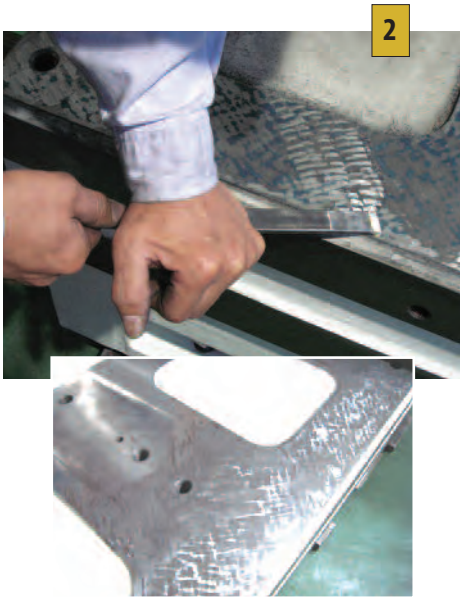
Kitamura castings provide critical design benefits:

- Premium grade Meehanite cast iron
- Solid column construction
- Hand-scraped surfaces for absolute perfect fit with no gaps
- Solid Induction Hardened Boxways produced at our factories
- Zero overhang for guaranteed static accuracies of +/- 0.002mm (+/-0.000079") / full stroke

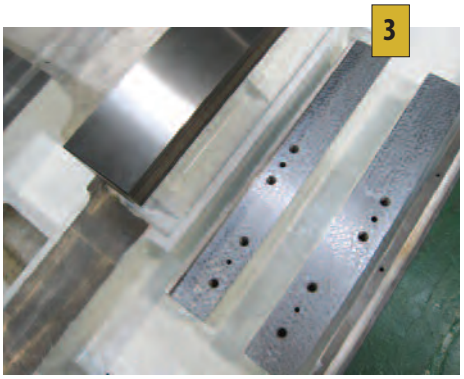
Only the highest grade Meehanite Cast Iron is used in Kitamura construction. This in combination with our induction hardened, precision ground solid boxways provides the mass, stability and damping necessary to offer heavier cutting ability, superb surface finishes and longer tool life.



Spindle Mounting Surface



Saddle Mounting Surface



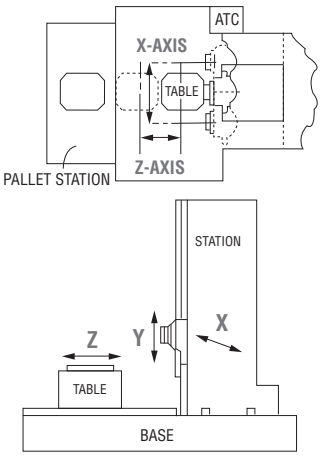
Ballscrew Mounting Surface

Craftsmanship in Handscraping

All critical machine contact surfaces are extensively and meticulously hand-scraped by some of the world's most experienced machine tool technicians to ensure that machine components fit perfectly each and every time. Hand scraping and hand fitting of components allow for true geometric tolerances and long machine tool life. Consistent accuracies of +/-0.002mm (+/-0.000079") / Full Stroke and +/-0.001mm (+/-0.000039") repeatability are able to be achieved as a result of this time honored tradition.

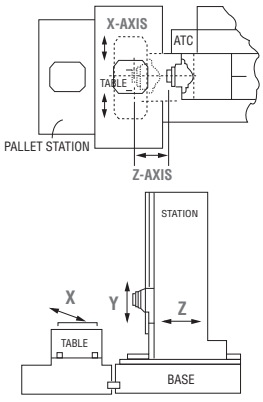
KITAMURA®

Solid One-Piece Design



For optimum precision and reduction of installation time, main casting components are assembled, aligned and shipped complete. This ensures factory specified accuracies are duplicated upon delivery. The solid column is securely attached to the solid one-piece base for optimum strength, rigidity and vibration damping.

Conventional Two-Piece Bed Design

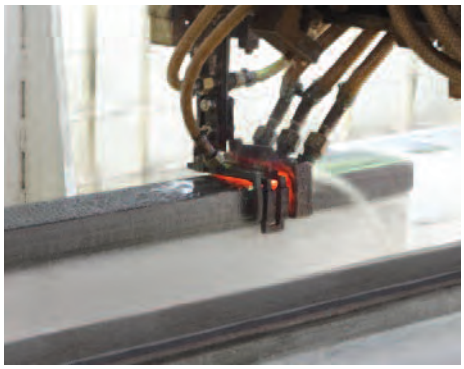


Two-piece base construction is prone to excessive vibration, adversely affecting accuracy and parts surface finishes. Overall machine performance and accuracy deteriorates over time.

BUILT to Endure

Premium grade components assure long-term quality, precision and reliability.

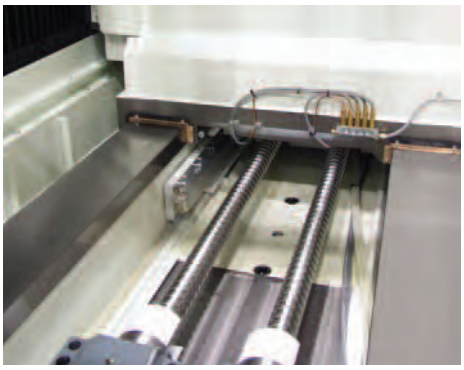
The best components make for the best machine. That's why Kitamura uses only the finest available. Meehanite cast structures, drive systems including precision fine pitch ballscrews and servomotors, award-winning spindles, tool and chip handling systems. Every component – from the ground up – must meet or surpass Kitamura's commitment to quality and performance.

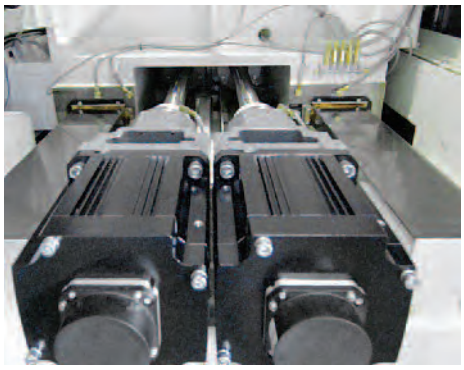


In-house induction hardening assures total process control.

The color of excellence. Kitamura is the only manufacturer that induction hardens and precision grinds their solid boxways.

All structure mating surfaces are precision hand-scraped to assure absolutely perfect fit. No need for geometry compensation to adjust for squareness, parallelism and perpendicularity.





Solid Boxways

- 7 times more surface contact
- 7 times more vibration damping
- Heavier cutting capability

High-precision, pre-tensioned fine pitch ballscrews are precisely temperature regulated to eliminate accuracy robbing thermal growth.

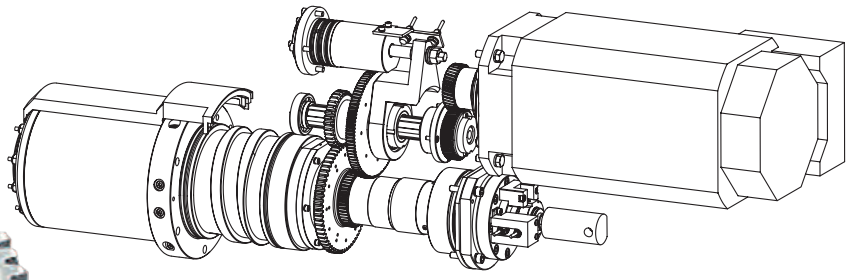
Premium grade servomotors with 16 million pulse encoders deliver astounding +/- 0.002mm (+/-0.000079") / full stroke positioning accuracies and powerful drive capability for tough cutting conditions.

POWER for Every Application

Flexibility to produce parts with optimum efficiency and precision . . .

The spindle is the powerplant of your HMC. **Mycenter G Series** HMCs are available with a wide variety of spindle configurations to suit your specific metalcutting requirements.

Our Dual contact spindle system provides simultaneous taper and flange contact for optimum rigidity. Tight bearing preload assures long-term spindle stiffness. Our gear driven design and efficient oil chiller system dissipate heat. And they deliver enhanced machining flexibility by delivering low-end heavy torque and high-speed fine finish capability.

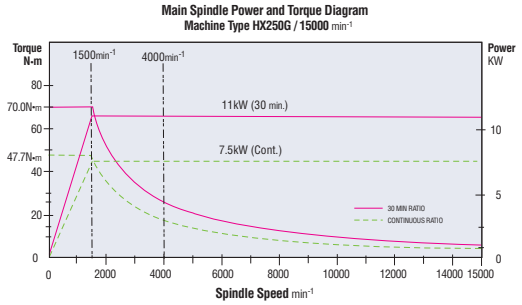


Delivering strong low-end torque and high-end fine finish capability, Kitamura's Multi-Step Gear Driven Spindles deliver unmatched power and energy efficiency for increased productivity and energy savings.

Kitamura has and continues to innovate "ecologically friendly" technology into our machines. Our unique gear driven spindles "sip" energy when compared to other spindle designs, yet deliver more cutting power. This design has earned Kitamura the coveted "20th Japan Industrial Machining Union Chairman Award" for the best energy-saving machine tool technology.

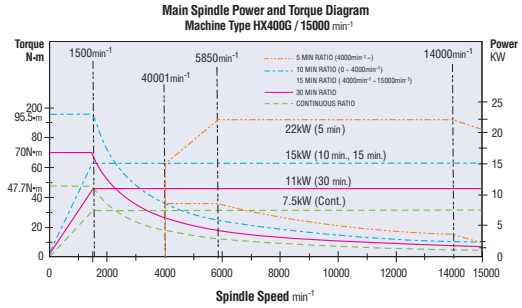
#30 TAPER / HSK-E40

	Mycenter-HX250G	Mycenter-HX250G
Spindle Speed	150 ~ 15,000min^{-1}	30,000min^{-1} Opt.
Drive Method	Direct Drive	Built In
Max. Spindle Torque	70.0 N•m (51.6 ft•lbs)	14.6 N•m (10.8 ft•lbs)
Spindle Motor	11kW (15 HP AC/30 min)	18kW (24 HP AC/2 min)
	7.5kW (20HP AC/10 min)	15kW (20 HP AC/Cont.)

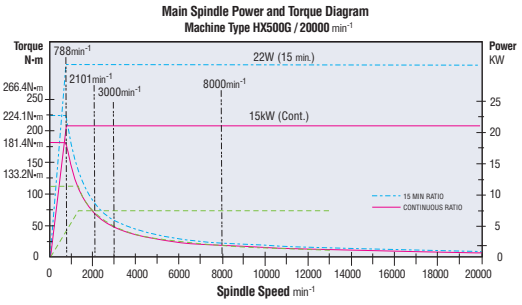


#40 TAPER (*HSK-A63)

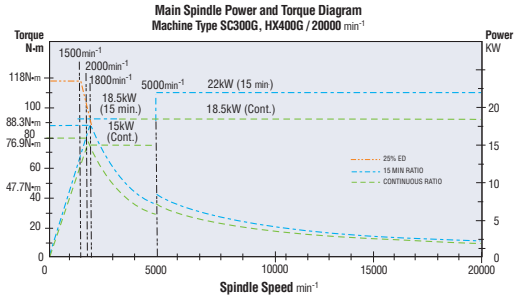
	Mycenter-HX400G	Mycenter-HX400G
Spindle Speed	40 ~ 15,000min^{-1}	20,000min^{-1} Opt.*
Drive Method	Direct Drive	Built In
Max. Spindle Torque	95.5 N•m (70.4 ft•lbs)	88.3 N•m (65.1 ft•lbs)
Spindle Motor	15kW (20HP AC/10 min)	22kW (30HP AC/15 min)
	7.5kW (20HP AC/10 min)	18.5kW (25HP AC/Cont.)



	Mycenter-HX500G	Supercell-300G
Spindle Speed	20 ~ 20,000min^{-1} *	200 ~ 20,000min^{-1}
Drive Method	Gear Drive, 4 Step	Built In
Max. Spindle Torque	266.4 N•m (196.5 ft•lbs)	118.0 N•m (87.0 ft•lbs)
Spindle Motor	15kW (20HP AC/10 min)	22kW (30HP AC/15 min)
	7.5kW (20HP AC/10 min)	18.5kW (25HP AC/Cont.)

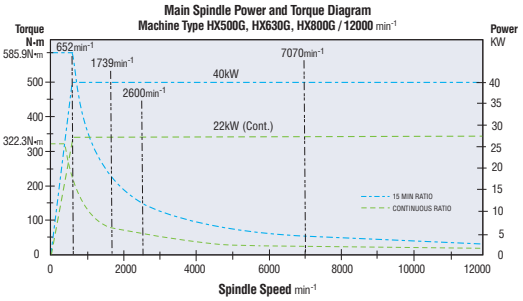


	Supercell-400	Supercell-400
Spindle Speed	20 ~ 15,000min^{-1}	20,000min^{-1} Opt.*
Drive Method	Gear Drive, 4 Step	Gear Drive, 4 Step
Max. Spindle Torque	157.4 N•m (116.1 ft•lbs)	157.4 N•m (116.1 ft•lbs)
Spindle Motor	13kW (18HP AC/15 min)	13kW (18HP AC/15 min)
	7.5kW (10HP AC/Cont.)	7.5kW (10HP AC/Cont.)



#50 TAPER (*HSK-A100)

	Mycenter-HX500G / 630G / 800G	Mycenter-HX500G / 630G / 800G
Spindle Speed	35 ~ 12,000min^{-1} *	8,000min^{-1} Opt.*
Drive Method	Gear Drive, 4 Step	Gear Drive, 4 Step
Max. Spindle Torque	585.9 N•m (432.1 ft•lbs)	1225.9 N•m (904.2 ft•lbs)
Spindle Motor	40kW (53HP AC/15 min)	40kW (53HP AC/15 min)
	22kW (30HP AC/30 Cont.)	22kW (30HP AC/30 Cont.)



Arumatik®-Mi Control

Pioneering Icon CNC Operation . . .

Kitamura's original **Arumatik®-Mi** control is as powerful as it is user friendly. By utilizing unique features such as visual work setting screens, maintenance support functions and video guidance on the 19" LCD the Arumatik-Mi control has been designed to maximize operator potential and performance. Advanced operation and ultra-high speed CNC technology mean smoother and faster machining of complex work pieces thanks to the power of High Precision Contour Control with 1680-block look ahead, 2800/blocks per second processing speeds. Designed to handle a variety of machining applications from highly mixed lot, small runs to high volume production work, the Arumatik-Mi offers the user the benefits of a completely customizable and expandable control experience.

- Free Lifetime Software Upgrades
- Maximizes Operator Convenience
- Super-Smooth Control Process
- Customized for Ultimate Productivity
- High Speed Processing
- Fanuc User-Friendly

Unique features such as visual work setting screens, maintenance support functions and video guidance on the 19" LCD the Arumatik-Mi control have been designed to maximize operator potential and performance.

Advanced operation and ultra-high speed CNC technology mean smoother and faster machining of complex workpieces thanks to the power of High Precision Contour Control with 1680-block look ahead, 2800 /blocks per second processing speeds.

The Arumatik-Mi is loaded with a variety of standard control features such as 1280M Memory, 2GB CT/ USB Data Server, 700 Custom MacroVariables, Inverse Time feed, Coordinate System Rotation, 102 Pairs Workpiece Coordinate System, 200 Tool Offsets - Just to name a few.

Free lifetime software upgrades assure continued optimum control features, functions and performance.

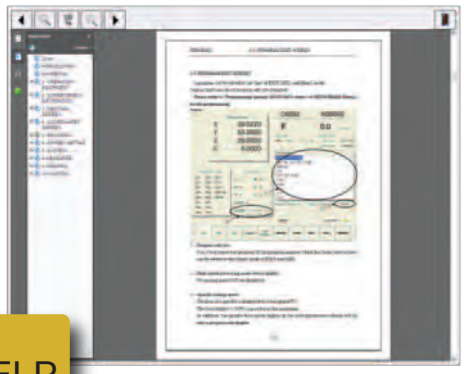
Standard Control Specifications

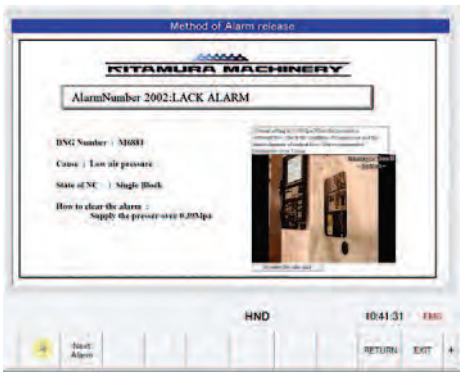
- On Demand “HELP” Guidance
- 19” Color LCD
- Fine Accel/Decel after Interpolation
- Linear Interpolation (G01)
- Circular/Helical/Spline Interpolation (G02, G03)
- Conical Interpolation (G02.1, G03.1)
- 3-D Circular Interpolation (G02.4, G03.4)
- Circular Cutting (G12, G13)
- Dwell (G04)
- Scaling (G50, G51)
- Extended Workpiece Coordinate System (102 Pairs)
- Single Direction Positioning (G60)
- Coordinate System Rotation (G68, G69)
- Rigid Tapping
- Deep-Hole Tapping Cycle
- Pecking Tapping Cycle
- Small-Diameter Deep-Hold Drilling Cycle
- 3-D Tool Compensation (G40, G41, G42)
- High Speed, High Accuracy Control
- Maintenance Support Function
- High-Precision Contour Control (1680 - block look ahead)
- 16-Million Pulse Encoder Feedback System
- Background Editing
- Corner Chamfering / Corner Rounding
- Custom Macro B
- Custom Macro Common Variables, 700 Pcs
- 2 GB CF/USB Data Server
- Ethernet Interface
- Extended Editing (Copy, Move, Change, Merge)
- Registerable Programs, 1,000 Sets
- 1280M Memory
- Inverse Time Feed
- Operation Screen Display
- Optional Block Skip
- Playback Function
- Program Restart
- Tangential Speed Constant Control
- Tool Life Management, 400 Sets
- Tool Offset Memory C
- Tool Offset Pairs, 200 Pairs
- Tool Retract and Return
- Tool Monitoring / Adaptive Control
- Backlash Compensation

Arumatik®-Mi Control

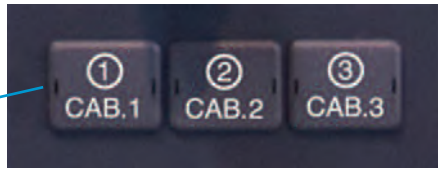
Exciting new features and functions. The latest in controller technology at your fingertips.

NEW! User Customized Main Menu Touch Screen





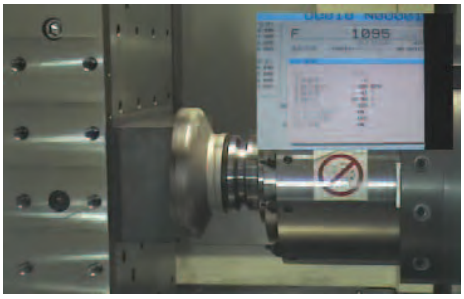
Auto call-up of instructional information



Custom Action Buttons (CAB)
User customized Machine Actions

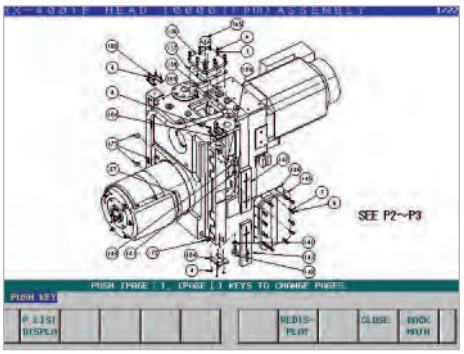
Convenient Visual Programming Screens

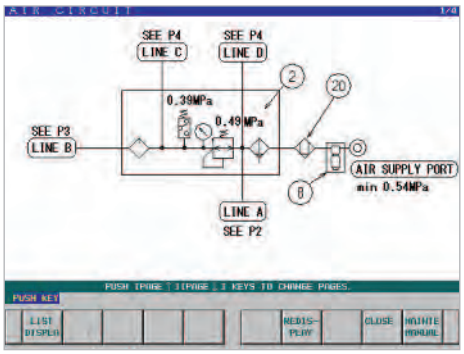
A variety of visual programming screens and functions offer the operator faster and easier methods of part set-up and processing for increased productivity. Set-up icon screens, camera functions, data highlight functions, remote monitoring screens and electronic manuals in PDF format ensure all information required is at your fingertips.



Kitamura Monitor / Adaptive Control

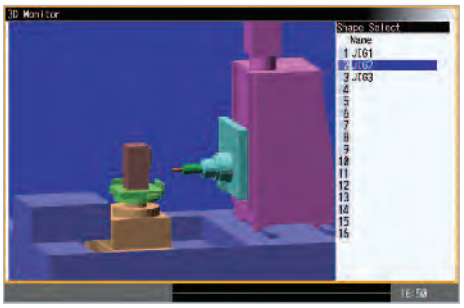
Detects tool wear and controls cutting feedrate automatically by monitoring live spindle load during machining. By adapting to the change in cutting conditions tool life is maximized and cycle time is shortened dramatically.

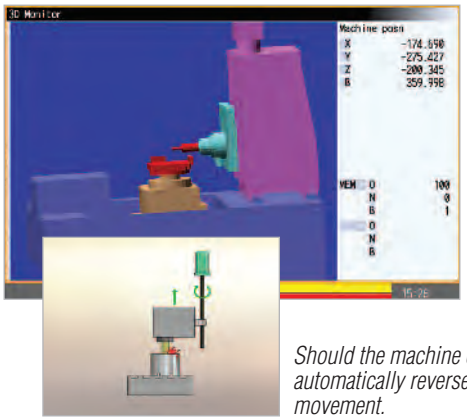




Maintenance Support Function

Kitamura's Maintenance Support Function offers operator convenience in displaying methods of machining maintenance, repair and parts support on the NC Screen.

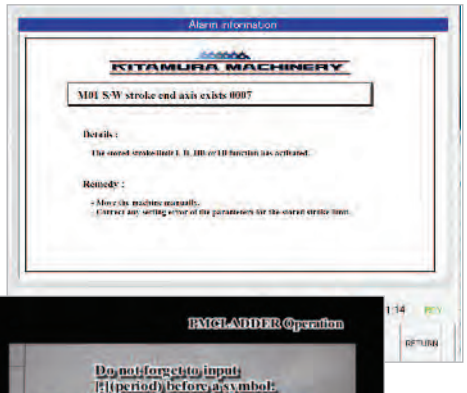


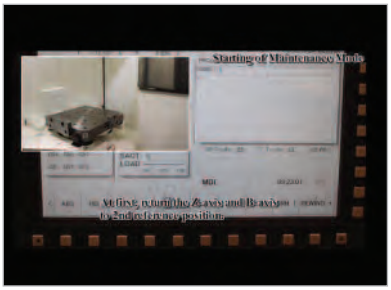


Collision Safety Function

Signals the machine to decelerate in any given movement and lessens the impact should the machine encounter a crash. Although this feature does not avoid the effects of a crash completely, it lessens the damage to the machine as a result.

Should the machine crash, this feature automatically reverses the direction of the machine movement.





Video Guidance

Useful functions visually walk the user through methods of battery replacement, alarm release, APC recovery, PMC ladder and alarm release/guidance making it easier to monitor machine performance and ensure uptime.

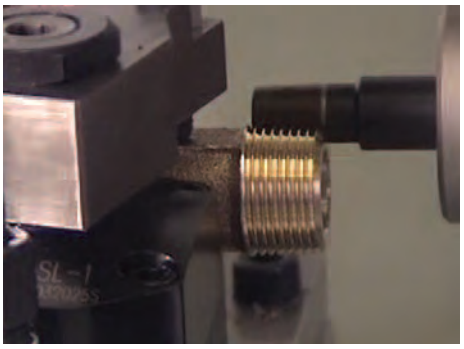
Mycenter HX250G

Horizontal Machining Center

Power and precision in an ultra-compact footprint

If you produce medium to long run small parts and want a higher level of accuracy and productivity, the **Mycenter-HX250G** the ideal choice. With standard 15,000min^{-1} and available 30,000min^{-1} ultra-rigid spindles and its high level of accuracy, the HX250G is ideal for small hole drilling, highly detailed machining and a host of artistic intricate machining applications.

The fast, efficient 2-station rotating APC, full 4th axis rotary table, blazing feedrates and 1.7 second tool change time will boost productivity to a whole new level. The HX250G is flexible in application. Smart fixturing options including 5th axis capability on both pallets and "in-the-field" ATC expandability will keep pace with your growing needs. The HX250G is controlled by Kitamura's operator-friendly, powerful high-speed Arumatik®-Mi CNC.



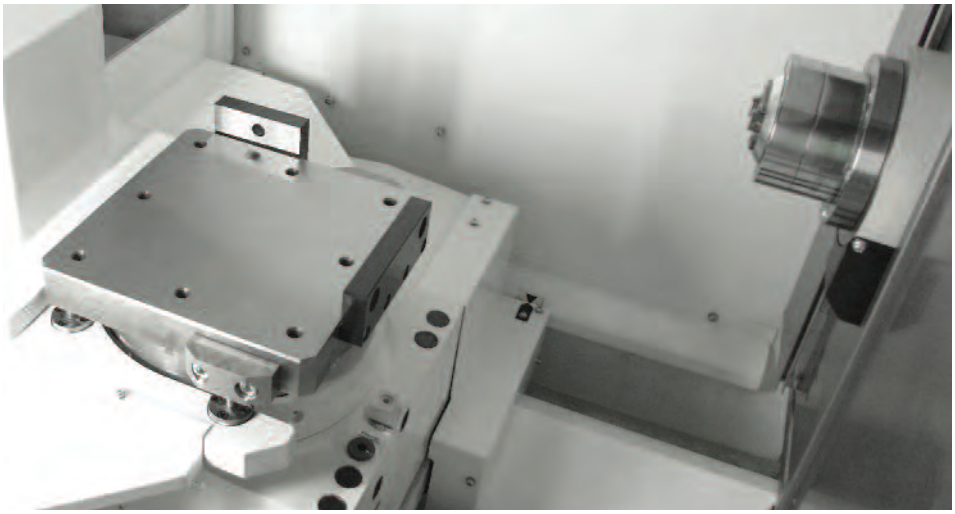
Standard 2-Station APC for drilling, milling, boring, tapping, threading and more.

Field installed 5th axis capable on BOTH pallets.

Standard is a powerful 15,000min^{-1} Dual Contact Spindle, ideal for tougher cuts.

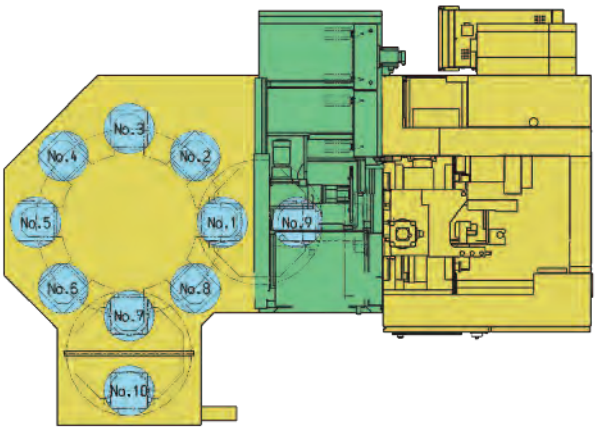
Mycenter-HX250G

Mycenter® HX250G
Horizontal Machining Center



For a machine this compact, the HX250G features a generous work envelope, full 4th Axis capability and world's fastest 60m/min (2,362ipm) rapid feeds provide machining flexibility for a wide variety of applications with unwavering reliability.

Standard 40 tool automatic tool changer minimizes tool change times for maximum cutting time. Kitamura's exclusive fixed pot ATC system assures tools are always returned to the same pot and the next tool to be used is kept in a "stand-by" pot. A 102 tool ATC can be added in the field for increased capability



The Mycenter-HX250G is available with an optional 10-station APC system for flexibility in just-in-time machining environments.

SPECIFICATIONS

	Mycenter-HX250G
Table	
Table Size	254 x 254mm (10.0" x 10.0")
Table Indexing	0.001 Degree (4th Axis)
Tapped Hole (Size x Qty.)	M12 x 1.75 x 8
Max. Table Load	100kg (220 lbs.)
Max. Workpiece Dia.	Ø350mm (Ø13.8")
Max. Workpiece Height	400mm (15.7")
Travels	
X-Axis Travel	305mm (12.0")
Y-Axis Travel	305mm (12.0")
Z-Axis Travel	330mm (13.0")
B-Axis Travel	0 to 360 Degrees Full 4th Axis
Table Surf. to Spindle Center	60 to 365mm (2.4" to 14.4")
Table Center to Spindle Nose	60 to 390mm (2.4" to 15.4")
Spindle	
Spindle Taper	#30 NST (HSK-E40 Option / 30k)
Spindle Speed	150 ~ 15,000min^{-1} (30,000min^{-1} Opt.)
Drive Method	Direct Drive
Maximum Spindle Torque	70.0 N•m (51.6 ft•lbs)
Spindle Motor	11kW (15HP AC/30 min)
	7.5kW (10HP AC/Cont.)
Feed	
Rapid Feed X,Y,Z	60m/min (2,362ipm)
Cutting Feed Rate X,Y,Z	60m/min (2,362ipm)
Rapid Feed (B-Axis)	12,000 deg/min (33.3min^{-1})
APC	
Number of Pallets	2
APC Change Time	7.9 seconds
ATC	
Tool Storage Capacity	40 Tools (Opt. 52, 102)
Tool Selection Method	Random Bi-Directional, Fixed Pot
Tool Holder Style	BT 30 (HSK-E40 Opt.)
Max. Tool Dia.	Ø50mm (Ø2.0") / Ø75mm (Ø3.0")
Max. Tool Length	200mm (7.9")
Max. Tool Weight	2kg (4.4 lbs.)
Tool to Tool	1.2 seconds
Chip to Chip	2.8 seconds, min.
Utilities	
Power Requirement	30KVA, 200v AC, 3 Phase
Air Requirement	0.5 MPa, 150L/min (90psi, 6cfm)
Machine Dimensions	
Required Space (W x D)	1,853 x 2,948mm (73.0" x 116.1")
Machine Height	2,284mm (89.9")
Machine Net Weight	4,500kg (9,900 lbs.)
Control	Arumatik®-Mi Control

Mycenter® HX400G / HX500G
Horizontal Machining Centers

Setting the new standard in (mid-size) HMCs

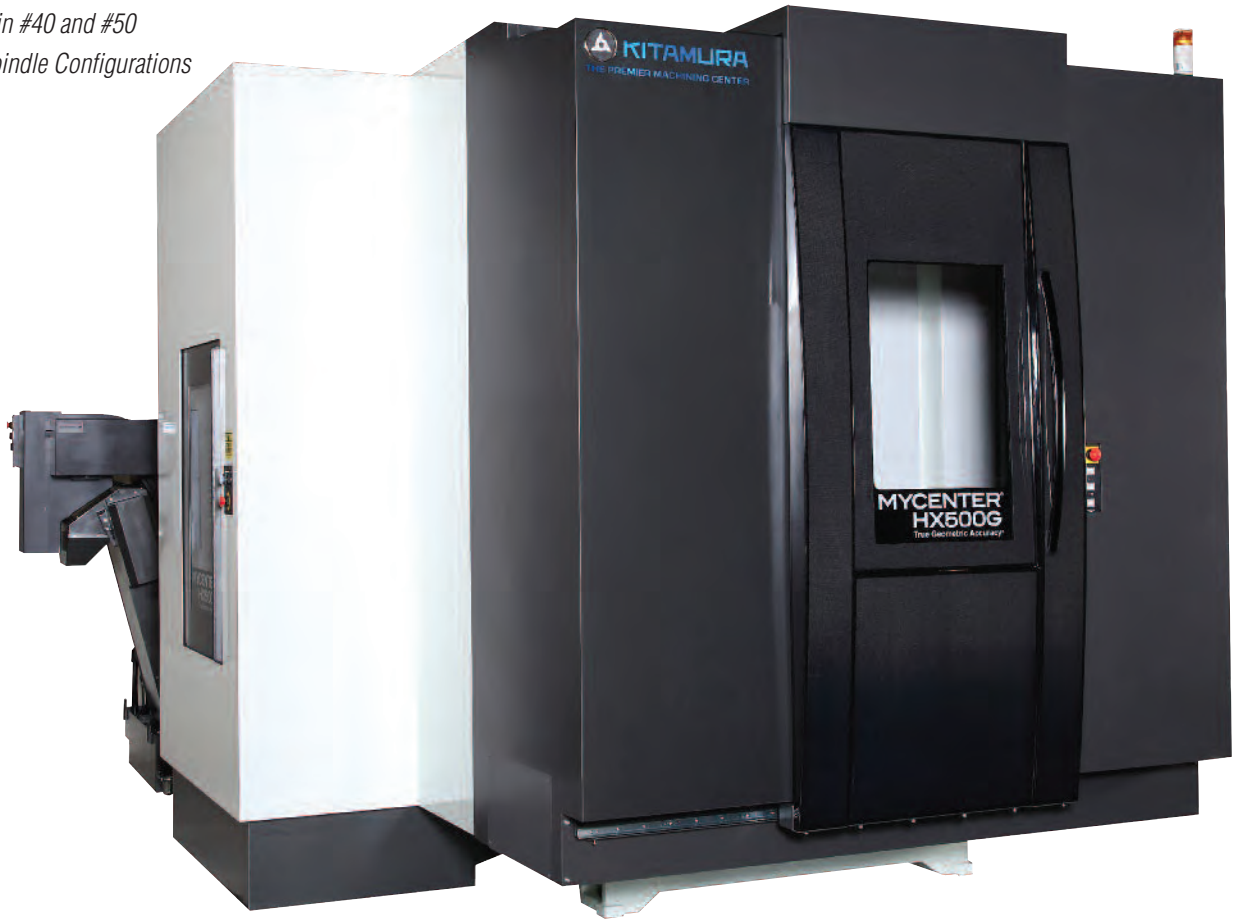
The **Mycenter-HX400G** is setting the new standard in 400mm horizontal machining centers, delivering the ultimate in state-of-the-art HMC performance. Solid box guideways are equipped with linear scale feedback on all axes for unmatched accuracy and optimum stability. A standard 2-station APC coupled with full 360 degree 4th axis capability means faster part turn around and more production per pallet load. Standard features such as the world's fastest 60m/min (2,362ipm) rapid feedrates, rear discharge hinge belt chip conveyor and numerous high-tech Icon-Drive Arumatik®-Mi control features make this space-saving mid-size HMC your go to for a variety of machining applications.

Highly efficient and productive with your choice of #40, 20,000min^{-1} and #50, 12,000min^{-1} geared configurations, the **Mycenter-HX500G** provides the power, speed and size to handle your larger and heavier workpieces. Solid boxway construction, linear scales on all axes and a patented twin ballscrew design in the X & Y axes deliver the highest accuracy levels available on the market today along with the rigidity necessary for true, heavy-duty, medium to large part machining.

Mycenter-HX400G

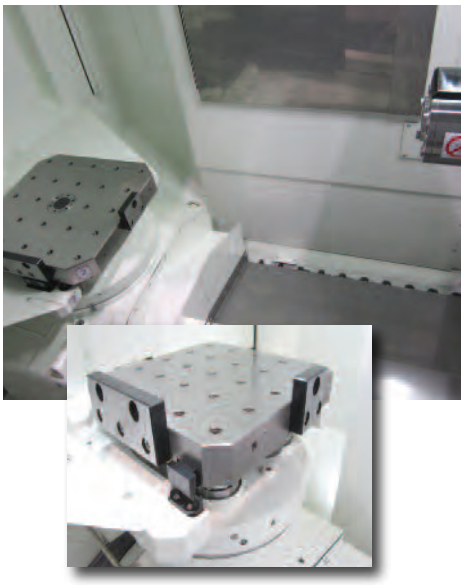
Mycenter-HX500G

Available in #40 and #50
Geared Spindle Configurations



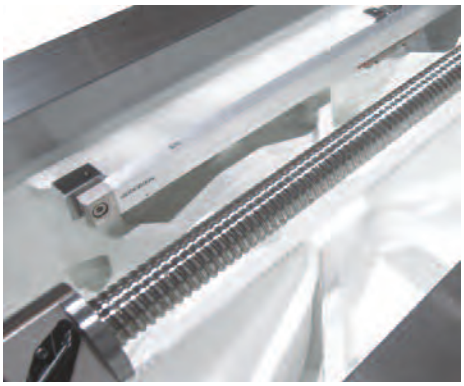
Mycenter® HX400G / HX500G
Horizontal Machining Centers

These machines are designed for total convenience and optimum work flow. One piece sliding front doors, larger windows and easy grip door handles reduce operator work load and promotes a safe work environment. The feature packed Arumatik®-Mi CNC swings toward the extra large operator window for convenient and mobile work set-up and inspection. Even the maintenance cabinet is conveniently located next to the operation station.



The two station APC offers the ability to add pallets and pallet pool systems in the field. The large work envelope houses standard 4th axis rotary tables that allow full 360° 4th axis capability simplifying machining of more complex, multi-sided parts.

Both the HX400G and HX500G feature our exclusive standard 50 -Tool Fixed Pot ATC. In-the-field tool capacity expansion up to 300 tools depending on model is available. Ultra-fast tool-to-tool change times of 1.3 seconds (40 taper) and 2.1 seconds (50 taper) optimizes machine performance.



Linear Axes (X, Y, Z) *Standard*
State-of-the-art, fine resolution (10 nanometer)
Optical Linear Scale Feedback
Long-term, highest in-class accuracy.

Rotary Table (B-Axis) *Standard*
High resolution (0.02 Sec.)
Direct Rotary Scale Feedback
Minimum displacement even at outer edges of table limit.

Kitamura uses only the highest quality world-class scale units available, while competitors claim to deliver the same high level accuracy with lesser grade units.
Standard on Mycenter-HX400G, HX500G, HX630G and HX800G Models.
Insist on the best – Kitamura HMC's.

SPECIFICATIONS

	Mycenter-HX400G	Mycenter-HX500G #40	Mycenter-HX500G #50
Table			
Table Size	400 x 400mm (15.7" x 15.7")	500 x 500mm (19.7" x 19.7")	500 x 500mm (19.7" x 19.7")
Table Indexing	0.001 Degree (4th Axis)	0.001 Degree (4th Axis)	0.001 Degree (4th Axis)
Tapped Hole (Size x Qty.)	M16 x 2.0 x 25	M16 x 2.0 x 24	M16 x 2.0 x 24
Max. Table Load	350 /400kg (770/880 lbs.)	800kg (1,760 lbs.)	800kg (1,760 lbs.)
Max. Workpiece Dia.	Ø630mm (Ø24.8")	Ø800mm (Ø31.5")	Ø800mm (Ø31.5")
Max. Workpiece Height	745mm (29.3")	1,100mm (43.3")	1,100mm (43.3")
Travels			
X-Axis Travel	610mm (24.0")	870mm (34.3")/Twin Ballscrew Design	870mm (34.3")/Twin Ballscrew Design
Y-Axis Travel	610mm (24.0")	800mm (31.5")/Twin Ballscrew Design	800mm (31.5")/Twin Ballscrew Design
Z-Axis Travel	610mm (24.0")	930mm (36.6")	930mm (36.6")
B-Axis Travel	0 to 360 Degrees Full 4th Axis	0 to 360 Degrees Full 4th Axis	0 to 360 Degrees Full 4th Axis
Table Surf. to Spindle Center	40 ~ 650mm (1.6" to 25.6")	50 ~ 850mm (2.0" ~ 33.5")	50 ~ 850mm (2.0" ~ 33.5")
Table Center to Spindle Nose	100 ~ 710mm (3.9" to 27.9")	140 ~ 1,070mm (5.5"~42.1")	60 ~ 990mm (2.4" ~ 39.0")
Spindle			
Spindle Taper	#40 NST	#40 NST (HSK-A63 Option)	#50 NST (HSK-A100 Option)
Spindle Speed	40 ~ 15,000min^{-1} (20,000min^{-1} Opt.)	20 ~ 20,000min^{-1}	35 ~ 12,000min^{-1} (8,000min^{-1} Opt.)
Drive Method	Direct Drive System	Gear Drive, 4-Step	Gear Drive, 4-Step
Maximum Spindle Torque	95.5 N•m (70.4 ft•lbs)	266.4 N•m (196.5 ft•lbs)	585.9 N•m (432.1 ft•lbs)
Spindle Motor	15kW (20HP AC/10 min)	22kW (30HP AC/15 min)	40kW (53HP AC/15 min)
	7.5kW (10HP AC/Cont.)	15kW (20HP AC/Cont.)	22kW (30HP AC/Cont.)
Feed			
Rapid Feed X,Y,Z	60m/min (2,362ipm)	60m/min (2,362ipm)	60m/min (2,362ipm)
Cutting Feed Rate X,Y,Z	60m/min (2,362ipm)	60m/min (2,362ipm)	60m/min (2,362ipm)
Rapid Feed (B Axis)	45,000 deg/min (125min^{-1})	12,000 deg/min (33.3min^{-1})	12,000 deg/min (33.3min^{-1})
APC			
Number of Pallets	2	2	2
APC Change Time	8.5 seconds	8.8 seconds	8.8 seconds
ATC			
Tool Storage Capacity	50 Tools (Opt. 100,150, 200, 300)	50 Tools (Opt. 100, 150, 200)	50 Tools (Opt. 62, 100, 150, 200)
Tool Selection Method	Random bi-directional, Fixed Pot	Random bi-directional, Fixed Pot	Random bi-directional, Fixed Pot
Tool Holder Style	CT (BT) 40	CT (BT) 40 (HSK-A63 Opt.)	CT (BT) 50 (HSK-A100 Opt.)
Max. Tool Dia.	Ø95mm (Ø3.7") / Ø150mm (Ø5.9")	Ø95mm (Ø3.7") / Ø170mm (Ø6.7")	Ø125mm (Ø4.9") / Ø300mm (Ø11.8")
Max. Tool Length	370mm (14.6")	600mm (23.6")	600mm (23.6")
Max. Tool Weight	10kg (22 lbs.)	10kg (22 lbs.)	30kg (66 lbs.)
Tool to Tool	1.3 seconds	1.3 seconds	2.1 seconds
Chip to Chip	2.5 seconds, min.	3.8 seconds, min.	4.8 seconds, min.
Utilities			
Power Requirement	50KVA, 200v AC, 3 Phase	55KVA, 200v AC, 3 Phase	55KVA, 200v AC, 3 Phase
Air Requirement	0.5 MPa, 350L/min (90psi, 12cfm)	0.5 MPa, 410L/min (90psi, 14cfm)	0.5 MPa, 410L/min (90psi, 14cfm)
Machine Dimensions			
Required Space (W x D)	3,035 x 4,065mm (119.5" x 160.0")	3,585 x 4,957mm (141.1" x 195.2")	3,620 x 4,957mm (142.5" x 195.2")
Machine Height	2,739mm (107.8")	3,178mm (125.1")	3,499mm (137.8")
Machine Net Weight	9,800kg (21,560 lbs.)	16,100kg (35,420 lbs.)	16,500kg (36,300 lbs.)
Control	Arumatik®-Mi	Arumatik®-Mi	Arumatik®-Mi

Specifications subject to change without notice.

Mycenter® HX630G / HX800G

Horizontal Machining Centers

Designed to tackle the toughest large part machining challenges

The **Mycenter-HX630G and HX800G** are designed for high-value, close-tolerance machining of large components and fixtured tombstones. Extraordinary capacity, superior design and construction features and superb accuracy make them the ideal choice in large capacity HMCs.
Use of proven techniques such as induction hardened solid boxway construction, hand-scraping of all mating surfaces and geared spindles all contribute to superior results and stability when machining larger heavy-duty parts made of tough-to-cut materials.

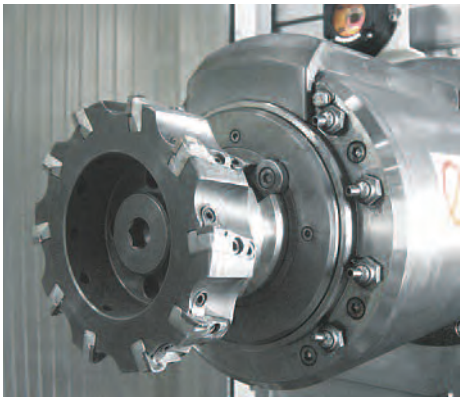
- 53HP, gear driven spindles provide the necessary torque for tough cuts and high-end power for fine finishes
- Patented twin ballscrews on all axes are driven by twin servo motors to deliver blazing “world’s fastest” 60m/min (2,362ipm) rapid feedrates on solid box ways
- Linear scale feedback is standard on all axes delivering stellar accuracy and repeatability
- Standard full 4th axis rotary table with rotary scale
- Kitamura’s Intelligent Advanced Control (IAC) System minimizes thermal displacement to less than 5 microns (0.0002")
- Standard Double Decker style chip conveyor and filtration system and 15bar (220psi) coolant thru the spindle

Mycenter-HX630G

Mycenter-HX800G

Mycenter® HX630G / HX800G

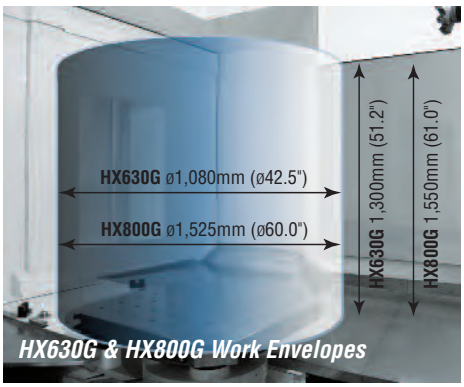
Horizontal Machining Centers



The Mycenter-HX630G and HX800G feature 53HP, high-torque, 4-step gear driven spindles that deliver high-efficiency cutting performance with low energy consumption. 8,000min^{-1} and 12,000min^{-1} configurations are available.

Expansive in both size and capability, the HX630G and HX800G come standard with full 360° 4th axis simultaneous machining capabilities needed to machine complex, multi-sided parts, greatly reducing set-up time. In addition, the 2-station automatic pallet changer allows for the loading of parts while machining, dramatically improving spindle cutting time while allowing for in-process verification of component quality. Large table capacities easily accommodate extra-large workpieces and complex fixturing.

Flexibility meets profitability with Kitamura's patented high-speed, fixed pot ATC system. Accurate and effective tool changes and tool identification are ensured – minimizing tool change time. The 50 tool standard magazine can easily be upgraded in the field with up to 200 tools for easy expandability as your needs grow.



HX630G & HX800G Work Envelopes

The Mycenter-HX630G and HX800G are designed to handle your largest part machining requirements. They easily handle workpieces up to ø1,080 x 1,300mm (ø42.5"x 51.2") and ø1,525mm x 1,550mm (ø60.0 x 61.0") respectively. The HX630G has a table load capacity of 1,500kg (3,300Lbs), the HX800G table load capacity is 3,000kgs (6,600Lbs).

SPECIFICATIONS

	Mycenter-HX630G	Mycenter-HX800G
Table		
Table Size	630 x 630mm (24.8" x 24.8")	800 x 800mm (31.5" x 31.5")
Table Indexing	0.001 Degree (4th Axis)	0.001 Degree (4th Axis)
Tapped Hole (Size x Qty.)	M16 x 2.0 x 25	M16 x 2.0 x 49
Max. Table Load	1,500kg / (3,300 lbs.)	3,000kg (6,600 lbs.) *With Limitations
Max. Workpiece Dia.	Ø1,080mm (Ø42.5")	1,525mm (Ø60.0")
Max. Workpiece Height	1,300mm (51.2")	1,550mm (61.0")
Travels		
X-Axis Travel	1,100mm (43.3") / Twin Ballscrew Design	1,550mm (61.0") / Twin Ballscrew Design
Y-Axis Travel	920mm (36.2") / Twin Ballscrew Design	1,300mm (51.2") / Twin Ballscrew Design
Z-Axis Travel	1,050mm (41.3") / Twin Ballscrew Design	1,400mm (55.1") / Twin Ballscrew Design
B-Axis Travel	0 to 360 Degrees Full 4th Axis	0 to 360 Degrees Full 4th Axis
Table Surf. to Spindle Center	100 ~ 1,020mm (3.9" ~ 40.2")	100 ~ 1,400mm (3.9" ~ 55.1")
Table Center to Spindle Nose	100 ~ 1,150mm (3.9" ~ 45.3")	150 ~ 1,550mm (5.9" ~ 61.0")
Spindle		
Spindle Taper	#50 NST (HSK-A100 Opt.)	#50 NST (HSK-A100 Opt.)
Spindle Speed	35 ~ 12,000min^{-1} (8,000min^{-1} Opt.)	35 ~ 12,000min^{-1} (8,000min^{-1} Opt.)
Drive Method	Gear Drive, 4 Step	Gear Drive, 4 Step
Maximum Spindle Torque	585.9 N•m (432.1 ft•lbs)	585.9 N•m (432.1 ft•lbs)
Spindle Motor	40kW (53HP AC/15 min)	40kW (53HP AC/15 min)
	22kW (30HP AC/Cont.)	22kW (30HP AC/Cont.)
Feed		
Rapid Feed X,Y,Z	60m/min (2,362ipm)	60m/min (2,362ipm)
Cutting Feed Rate X,Y,Z	60m/min (2,362ipm)	60m/min (2,362ipm)
Rapid Feed (B Axis)	12,000 deg/min (33.3min^{-1})	8,000 deg/min (22.2min^{-1})
APC		
Number of Pallets	2	2
APC Change Time	14.7 seconds	23.0 seconds
ATC		
Tool Storage Capacity	50 Tools (Opt. 62,100,150, 200)	50 Tools (Opt. 62,100,150, 200)
Tool Selection Method	Random bi-directional, Fixed Pot	Random bi-directional, Fixed Pot
Tool Holder Style	CT (BT) 50	CT (BT) 50
Max. Tool Dia.	Ø125mm (Ø4.9") / Ø320mm (Ø12.6")	Ø125mm (Ø4.9") / Ø320mm (Ø12.6")
Max. Tool Length	650mm (25.6")	650mm (25.6")
Max. Tool Weight	30kg (66 lbs.)	30kg (66 lbs.)
Tool to Tool	2.1 seconds	2.1 seconds
Chip to Chip	5.2 seconds, min.	5.9 seconds, min.
Utilities		
Power Requirement	65KVA, 200v AC, 3 Phase	70KVA, 200v AC, 3 Phase
Air Requirement	0.5 MPa, 410L/min (90psi, 14cfm)	0.5 MPa, 410L/min (90psi, 14cfm)
Machine Dimensions		
Required Space (W x D)	4,068 x 5,760mm (160.2" x 226.8")	4,295 x 7,119mm (69.1" x 280.3")
Machine Height	3,513mm (138.3")	3,554mm (139.9")
Machine Net Weight	21,000kg (46,200 lbs.)	28,400kg (62,480 lbs.)
Control	Arumatik®-Mi	Arumatik®-Mi

Specifications subject to change without notice.

Mycenter SC300G / SC400

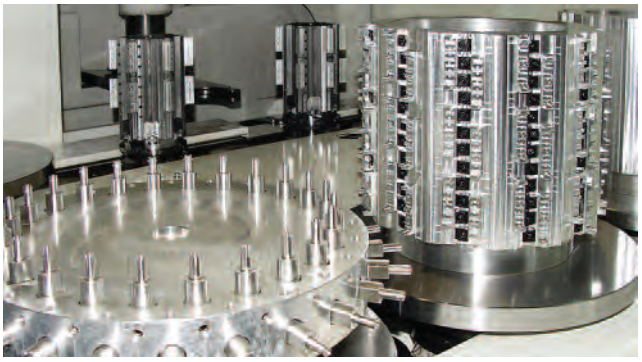
5-Axis Machining Cells

The solution to today's complex production demands.

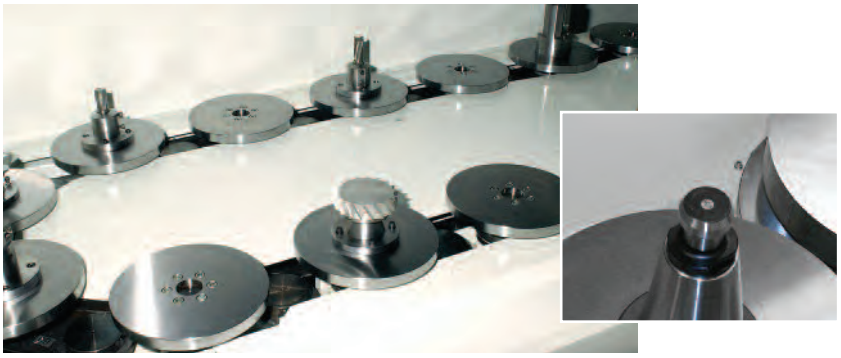
Kitamura's **Supercell Series** is the perfect FMC for today's fast-paced, multi-part machining applications. The combination of Kitamura's exclusive high-speed Automatic Work Handling Robot (AWC), powerful control capabilities and pallet ID recognition system enables 72 hour unmanned operation. Efficient chip management is provided by a standard Double Decker Style Chip Conveyor (Combination Caterpillar & Scraper).

- J.I.T. optimized
- Dramatically reduced set-up times
- Holder-style pallets simplify fixture change-outs
- 3-5 Times improved parts accuracy
- Continuous unmanned operations without use of a cell controller

The Supercells' extraordinary control and pallet processing capabilities allow for streamlined multi-part varied-lot machining.



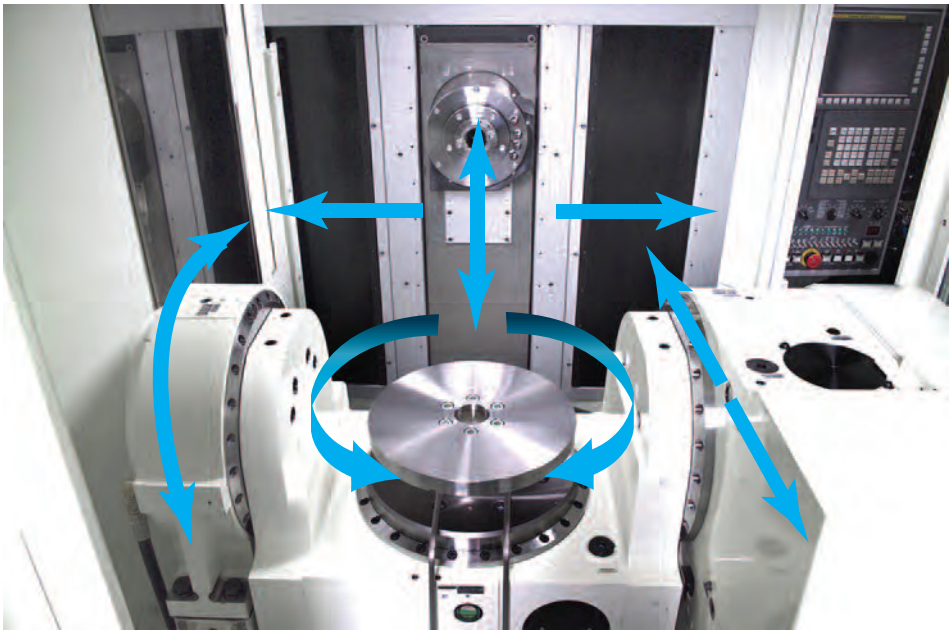
To ensure proper machine operation, a Work ID System employs an IC Chip on the pallet allowing for storage and communication of work data quickly and accurately.



Supercell-400

Mycenter SC300G / SC400

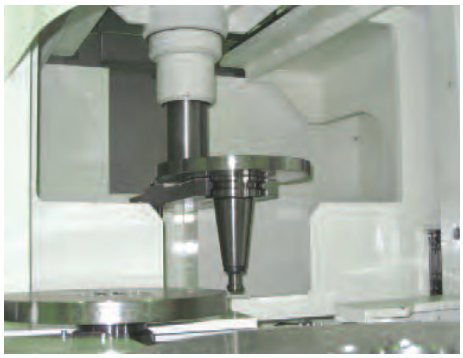
5-Axis Machining Cells



The spindle travels in the X and Y axes while the table travels in the Z axis. This provides optimum tool approach to the workpiece. Absolute scale feedback is standard on all axes. X, Y, Z Axes resolution is 0.0001mm, A & B Axes resolution is 0.0001 degree.

The Supercell 300G is equipped with a standard high-speed 20,000min^{-1} spindle. The Supercell 400 has a standard powerful 15,0000min^{-1} spindle with a 20,000min^{-1} high-speed spindle available as an option.

Supercells are designed to handle a wide variety of workpieces. The Supercell 300G has a maximum workpiece size of ø200 x 200mm H (ø7.9" x 7.9" H). The Supercell 400 handles workpieces up to ø400 x 300mm H (ø15.7" x 11.8" H).



Kitamura designed the original high-speed Automatic Work Handling Robot (AWC) exclusively for the Supercell. This system reduces pallet load & unloading time, allowing just-in-time operation, ideal for highly mixed production.

Generous work envelope houses trunnion style table for full simultaneous 5-axis machining. Supercells can be equipped with up to 120 pallets and a 314 tool capacity as optional depending on model.

SPECIFICATIONS

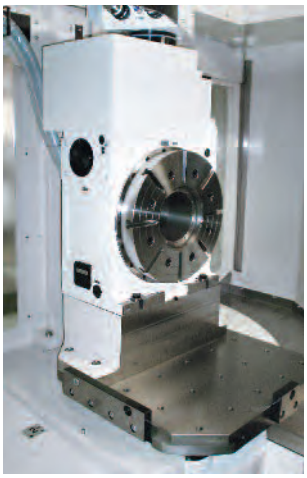
	Mycenter-Supercell 300G	Mycenter-Supercell 400
Table		
Pallet Size	Ø200mm (Ø7.9")	Ø350mm (Ø13.8)
Table Indexing	0.001 Degree (4th / 5th Axes)	0.001 Degree (4th / 5th Axes)
Maximum Pallet Load	20kg (44 lbs.)	54kg (118.8 lbs.)
Without Table		80 kg (176 lbs.)
Max. Workpiece Dia. x H	Ø200 x 200mm (Ø7.9" x 7.9")	Ø400 x 300mm (Ø15.7" x 11.8")
Travels		
X-Axis Travel	460mm (18.1")	510mm (20.1")
Y-Axis Travel	410mm (16.1")	510mm (20.1")
Z- Axis Travel	460mm (18.1")	510mm (20.1")
A-Axis Travel	+30 to -120 Degrees (*with some restrictions)	0 to -100 Degrees (*with some restrictions)
B-Axis Travel	0 to 360 Degree	0 to 360 Degree
B-Axis Ctr. to Spindle Nose	60mm ~ 520mm (2.4"~20.5")	100mm ~ 610mm (3.9" ~ 24.0")
Table Surface to Spindle Ctr.	-100mm ~ 410mm (-3.9" ~ 16.1")	-200mm ~ 310mm (-7.9" ~ 12.2")
Spindle		
Spindle Taper	NST. No. 40	NST. No. 40
Spindle Speed	200 ~ 20,000min^{-1}	20 ~ 15,000min^{-1} (20 ~ 20,000min^{-1} Opt.)
Drive Method	Built-In	Gear Drive, 4 Step
Maximum Spindle Torque	118.0 N•m (87.0 ft•lbs)	157.4 N•m (116.1 ft•lbs)
Spindle Motor	22kw (30 HP AC) /15 min	13kw (18 HP AC) / 15 min
	18.5kw (25 HP AC) / Cont.	11kw (15 HP AC) / 30 min.
	7.5kw (10 HP AC) / Cont.	
Feed		
Rapid Feeds X, Y, Z	60m/min (2,362ipm)	50m/min (1,969ipm)
Feed Rates A, B	18,000 deg/min (50min^{-1})	2,400 deg/min (6.7min^{-1})
Cutting Feed Rates	60m/min (2,362ipm)	50m/min (1,969ipm)
APC		
Number of Pallets	20 (40, 80 opt.)	20 (40, 60, 80, 120 opt.)
ATC		
Tool Storage Capacity	174 Tools (Opt. 230, 258, 314)	140 Tools (Opt. 190, 290)
Tool Selection Method	Random bi-directional, Fixed Pot	Random bi-directional, Fixed Pot
Tool Holder Style	MAS CT (BT) 40	MAS CT (BT) 4
Max. Tool Diameter	Ø95mm (Ø3.7") / Ø150mm (Ø5.9")	Ø95mm (Ø3.7") / Ø150mm (Ø5.9")
Max. Tool Length	350mm (13.7")	350mm (13.7")
Max. Tool Weight	10kg (22.0 lbs.)	10kg (22.0 lbs.)
Tool to Tool Change Time	1.3 seconds	2.1 seconds
Chip to Chip Change Time	2.5 seconds, min.	5.0 seconds, min.
Utilities		
Power Requirement	55 KVA, 200v AC, 3 Phase	45 KVA, 200v AC, 3 Phase
Air Requirement	0.5MPa, 350 L/min (90 psi, 13 cfm)	0.5MPa, 330 L / min (90 psi, 12 cfm)
Required Space (W x D)	3,835 x 6,006mm (151.0" x 236.5")	5,534 x 6,042mm (217.9" x 237.9")
Machine Height	2,682mm (105.6")	2,712mm (106.8")
Machine Net Weight	14,706kg (32,420 lbs.)	14,930kg (32,846 lbs.)
Control	Arumatik®-Mi	Kitamura-Fanuc 30iB

Specifications subject to change without notice.

OPTIONS

Flexibility to produce parts with optimum efficiency and precision . . .

Expand machining capability with a wide variety of optional accessories to meet your exacting machining requirements.



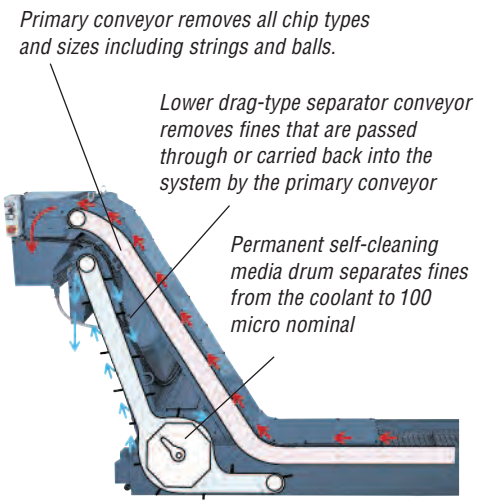
Field Retrofittable 5th Axis Rotary Tables

Laser Non-Contact Tool Probe

Spindle Probe

High Capacity, Double-Decker Chip Conveyor

(Standard on HX500G, HX630G, HX800G, SC300G / SC400)



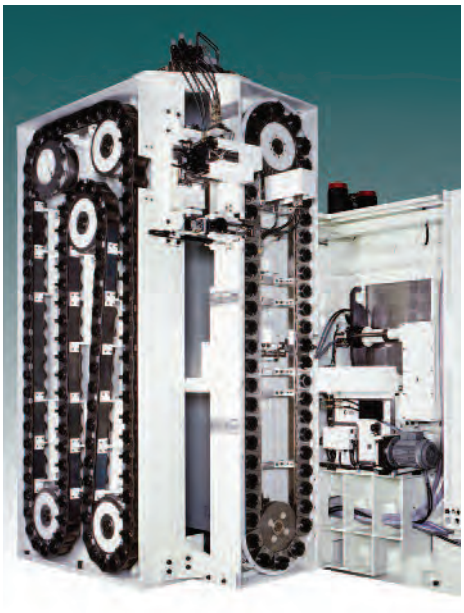
Field Expandable Options

Kitamura Multi-Pallet Systems

Available in 8, 10, 14 and 21 APC configurations

Kitamura Flexible Manufacturing Systems

100 Tool ATC

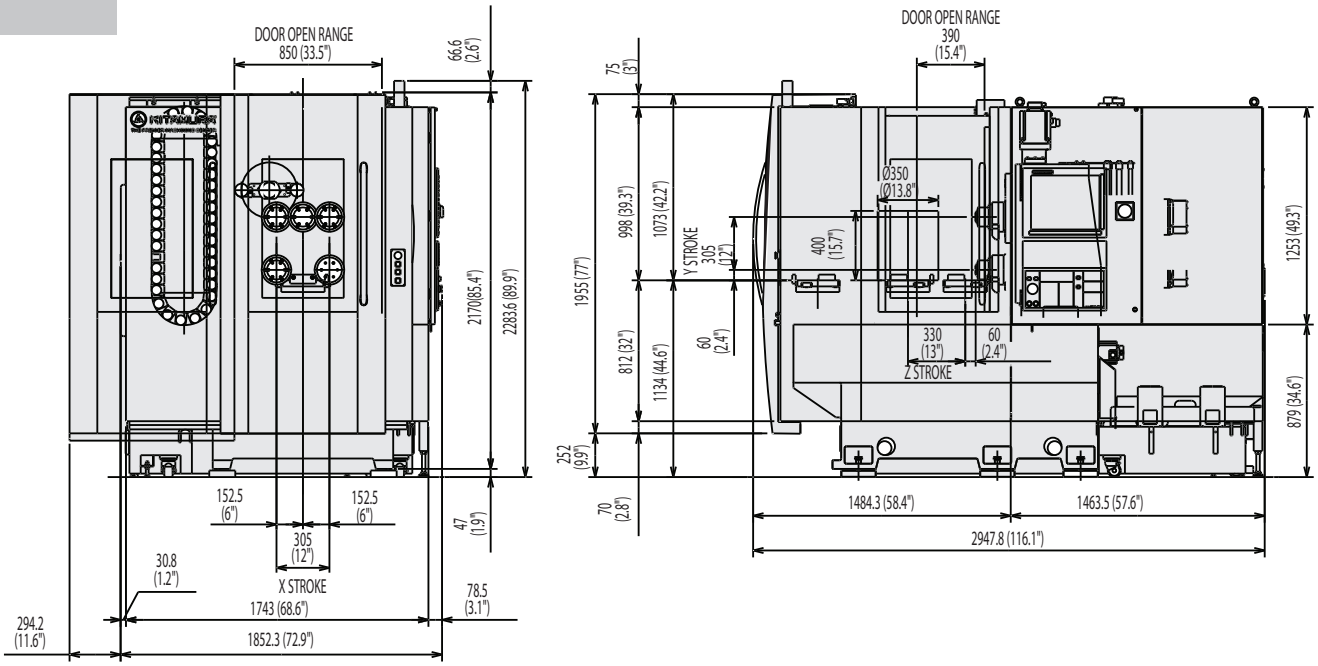


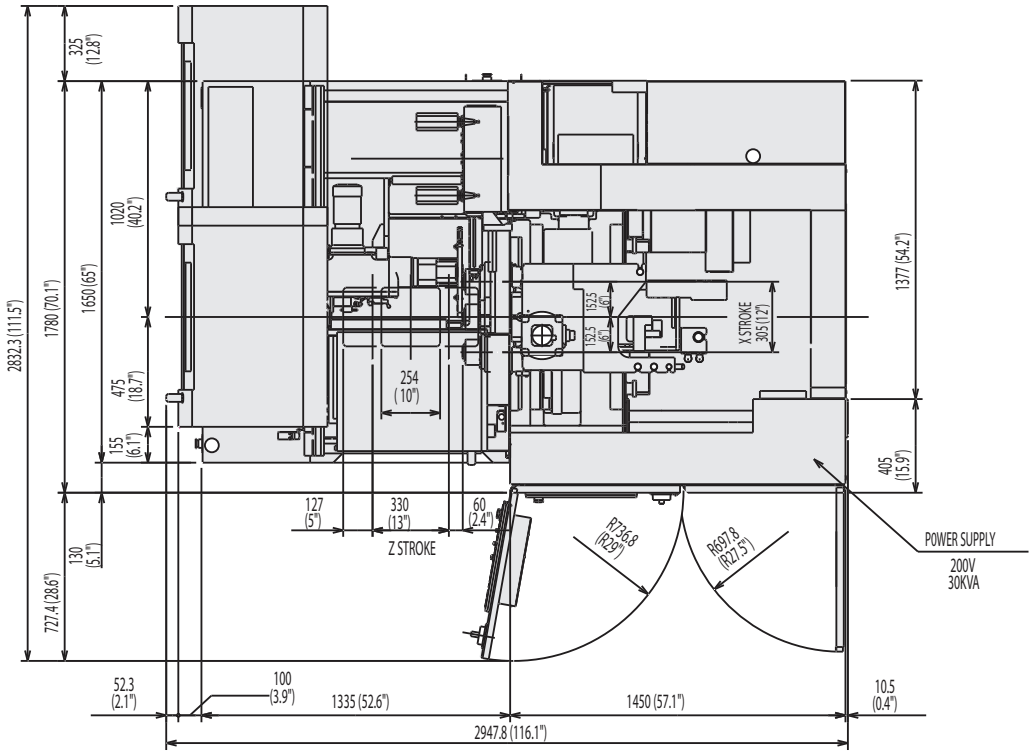
150 Tool ATC

Factory Installed Option

Available Matrix Style Tool Changer

MYCENTER-HX250G

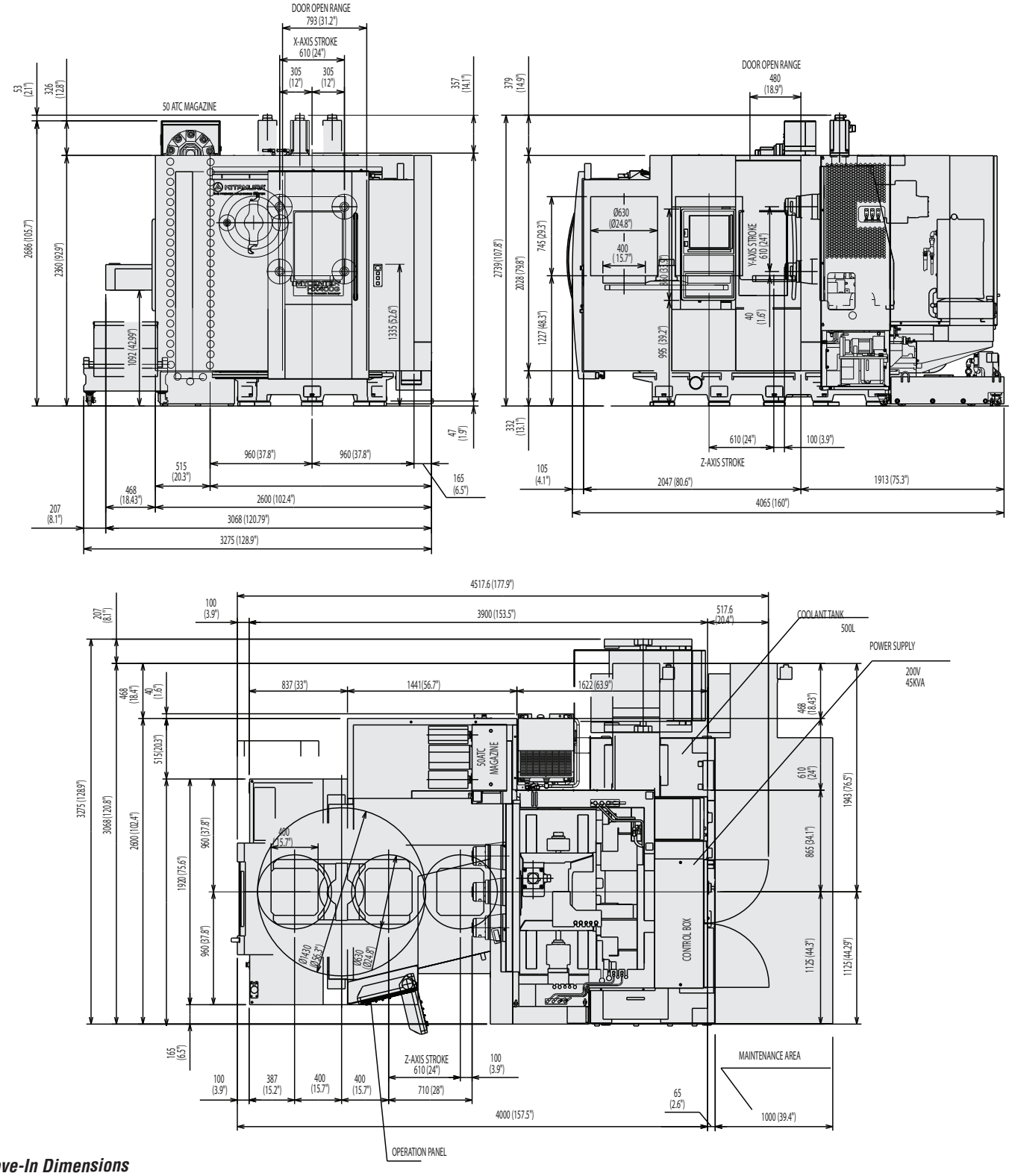




Move-In Dimensions

Required Space W x D:	1,852.3 x 2,968mm (72.9" x 116.1")
Machine Height:	2,170mm (85.4")
Machine Net Weight:	4,500kg (9,900Lbs)
Power Requirement:	30KVA

Specifications subject to change without notice.

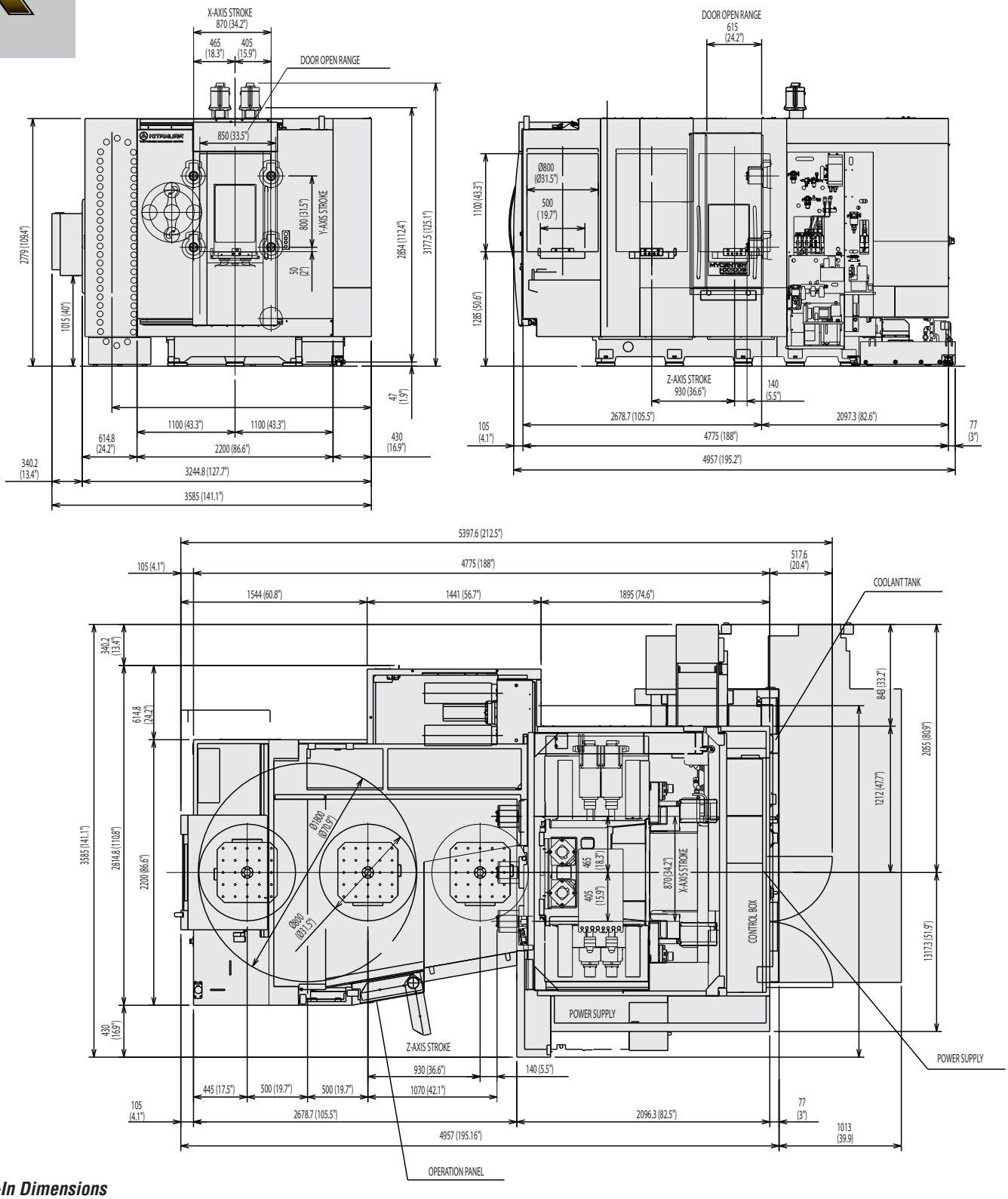


Move-In Dimensions

Required Space W x D:	2,085 x 4,000mm (82.7" x 157.5")
Machine Height:	2,335mm (91.9")
Machine Net Weight:	9,800kg (21,560Lbs)
Power Requirement:	45KVA

Specifications subject to change without notice.

MYCENTER-HX500G 40 TAPER

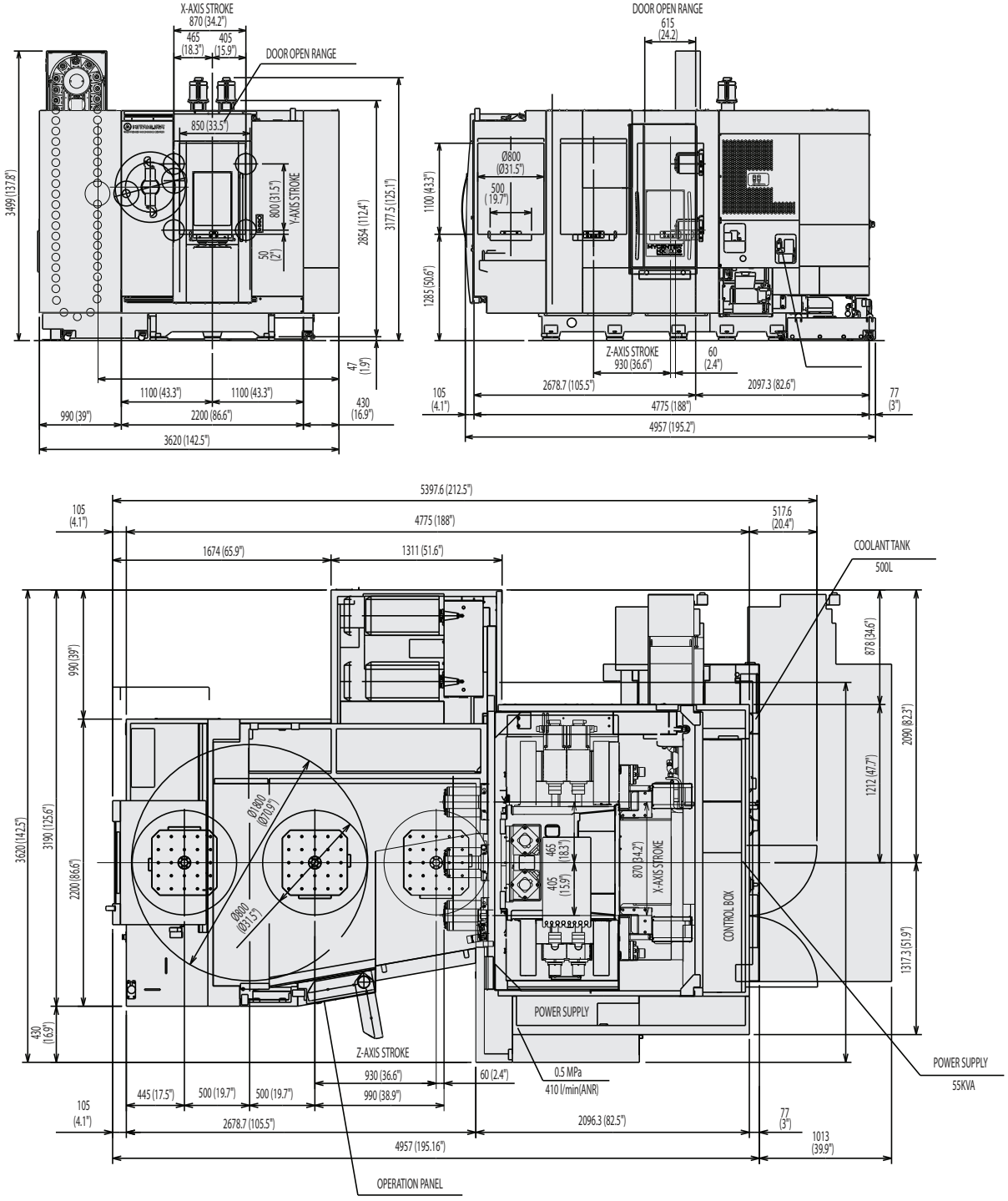


Move-In Dimensions

Required Space W x D:	2,810 x 4,880mm (110.6" x 192.1")
Machine Height:	2,854mm (112.4")
Machine Net Weight:	16,100kg (34,520Lbs)
Power Requirement:	55KVA

Specifications subject to change without notice.

MYCENTER-HX500G 50 TAPER

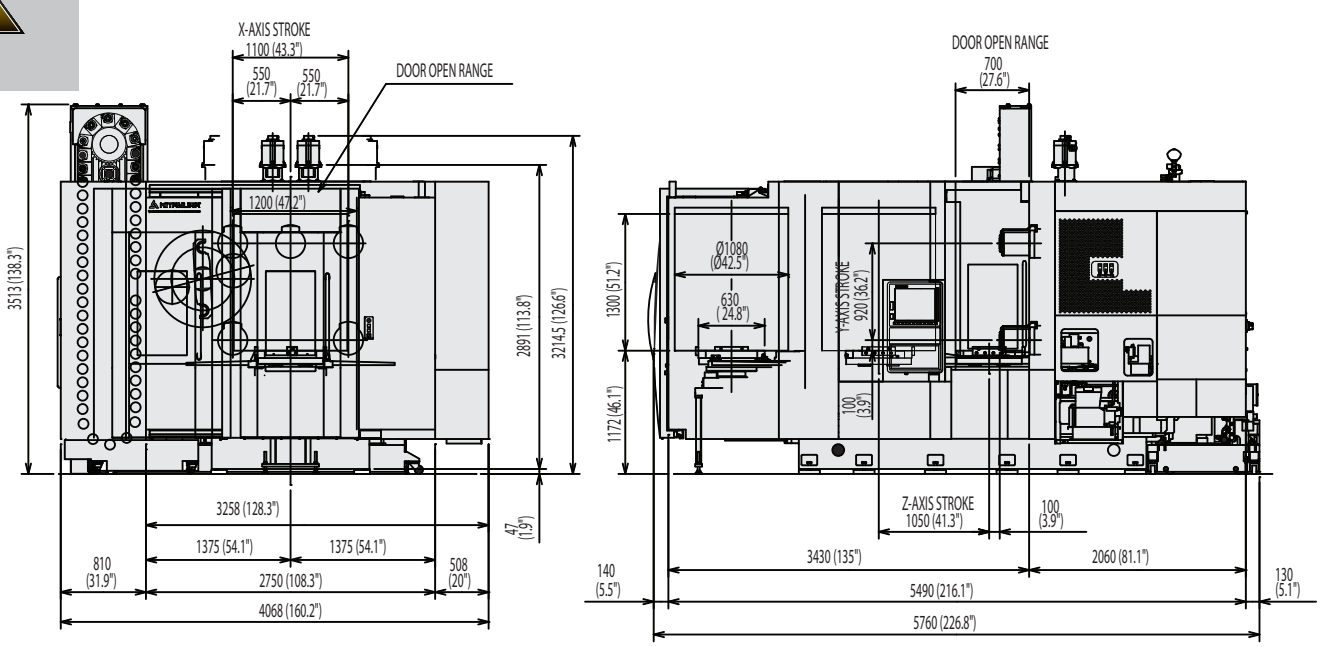


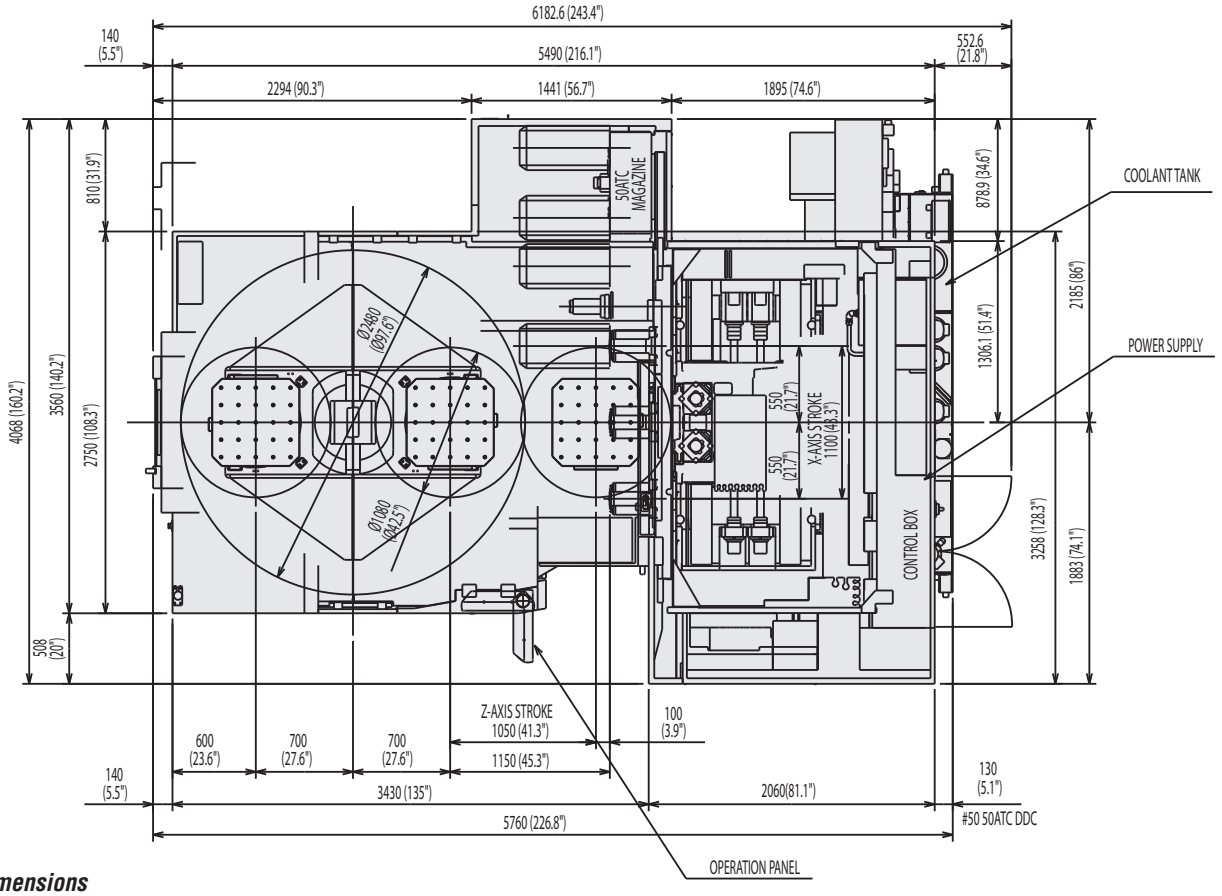
Move-In Dimensions

Required Space W x D:	2,810 x 4,880mm (110.6" x 192.1")
Machine Height:	2,854mm (112.4")
Machine Net Weight:	16,500kg (36,300Lbs)
Power Requirement:	55KVA

Specifications subject to change without notice.

MYCENTER-HX630G

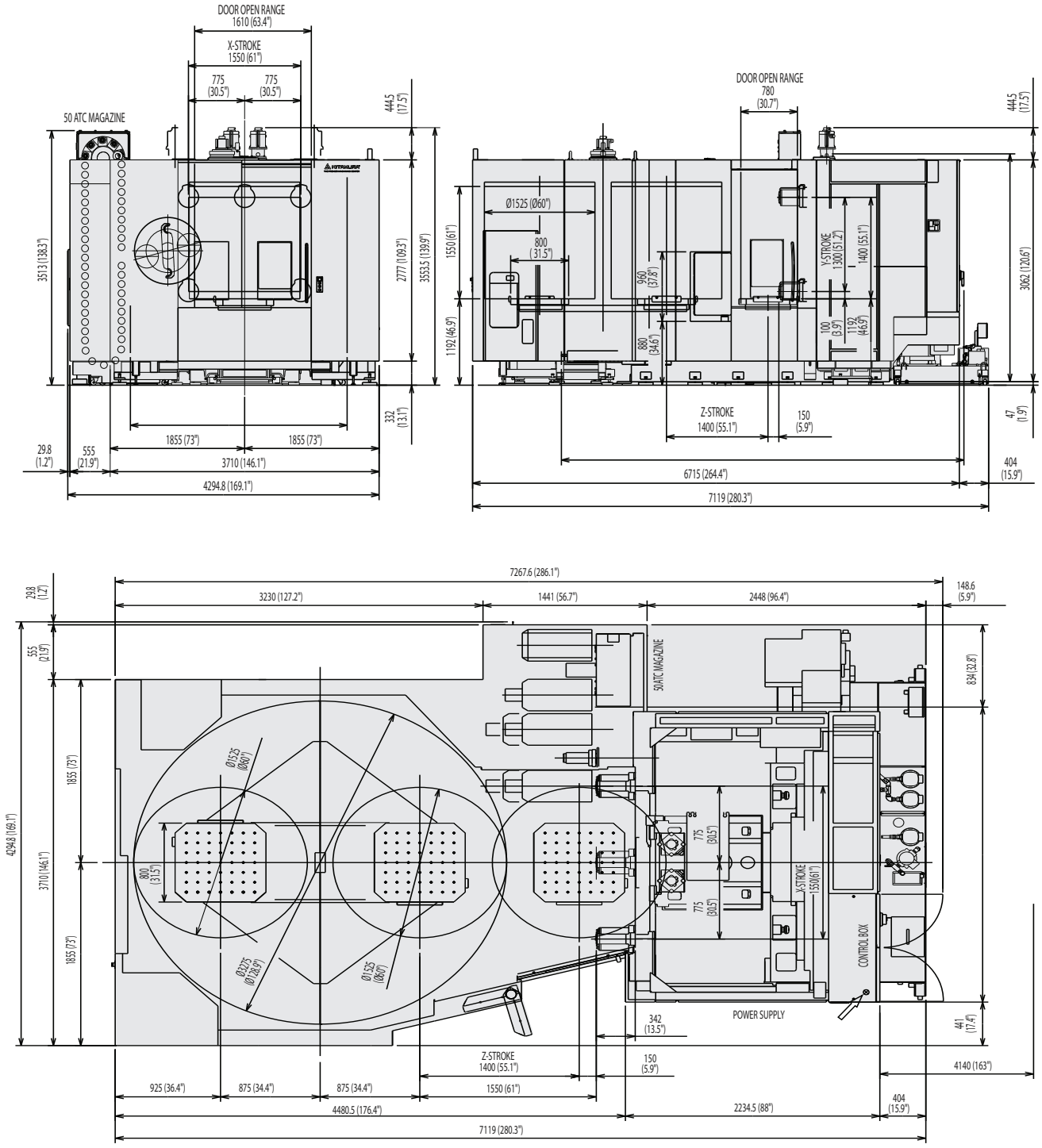




Move-In Dimensions

Required Space W x D:	3,258 x 5,630mm (128.3" x 221.7")
Machine Height:	2,891mm (113.8")
Machine Net Weight:	21,000kg (46,200Lbs)
Power Requirement:	65KVA

Specifications subject to change without notice.

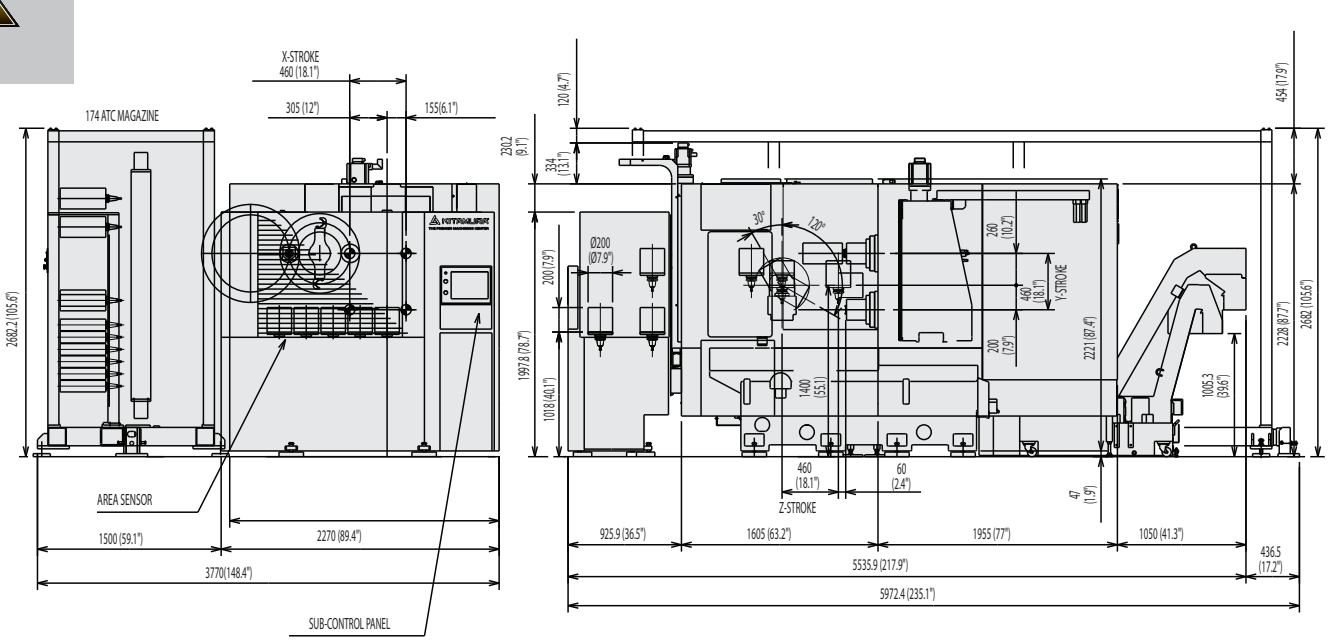


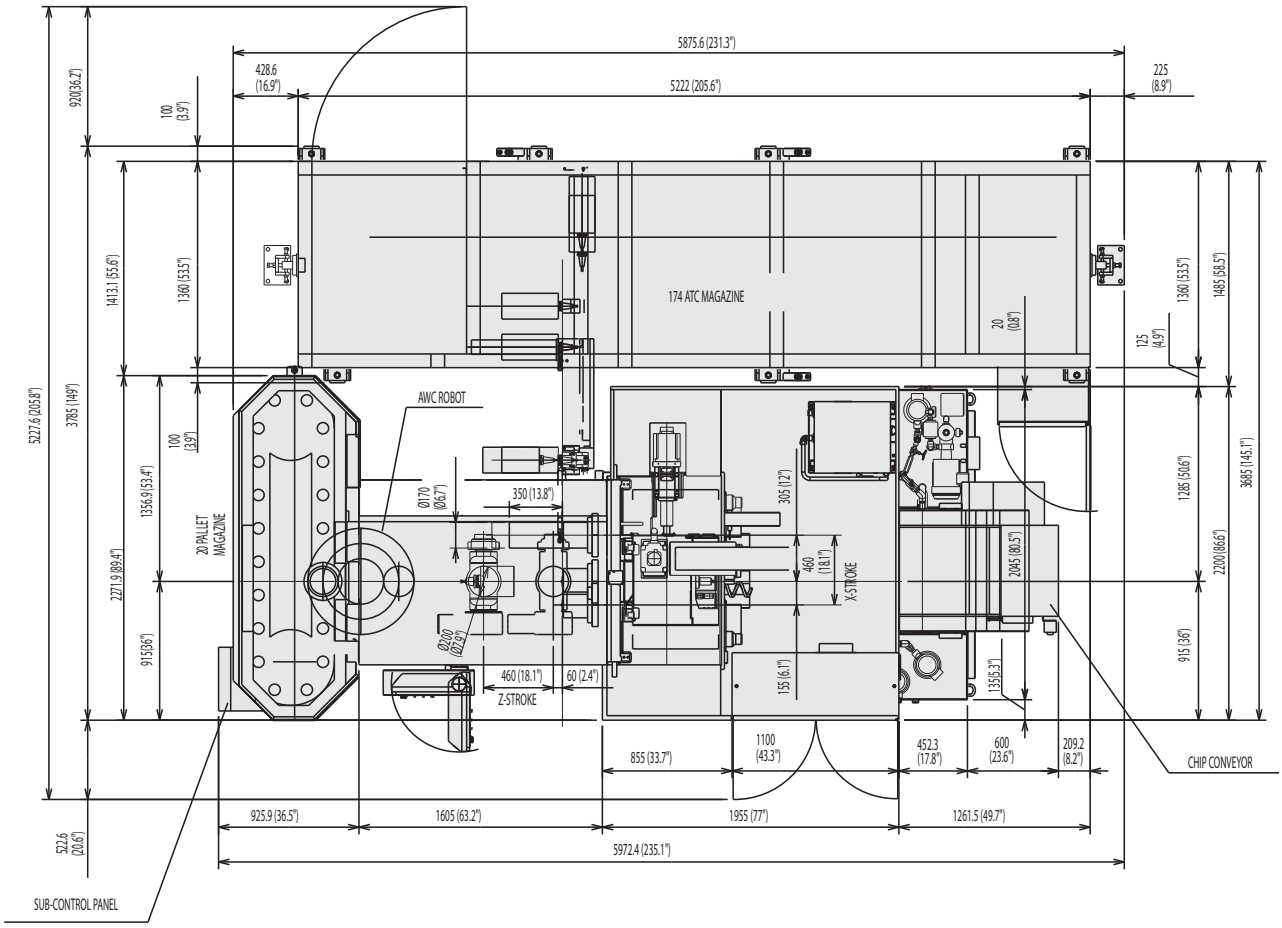
Move-In Dimensions

Required Space W x D:	2,990 x 5,553mm (117.7" x 218.6")
Machine Height:	3,145mm (123.8")
Machine Net Weight:	28,400kg (62,480Lbs)
Power Requirement:	70KVA

Specifications subject to change without notice.

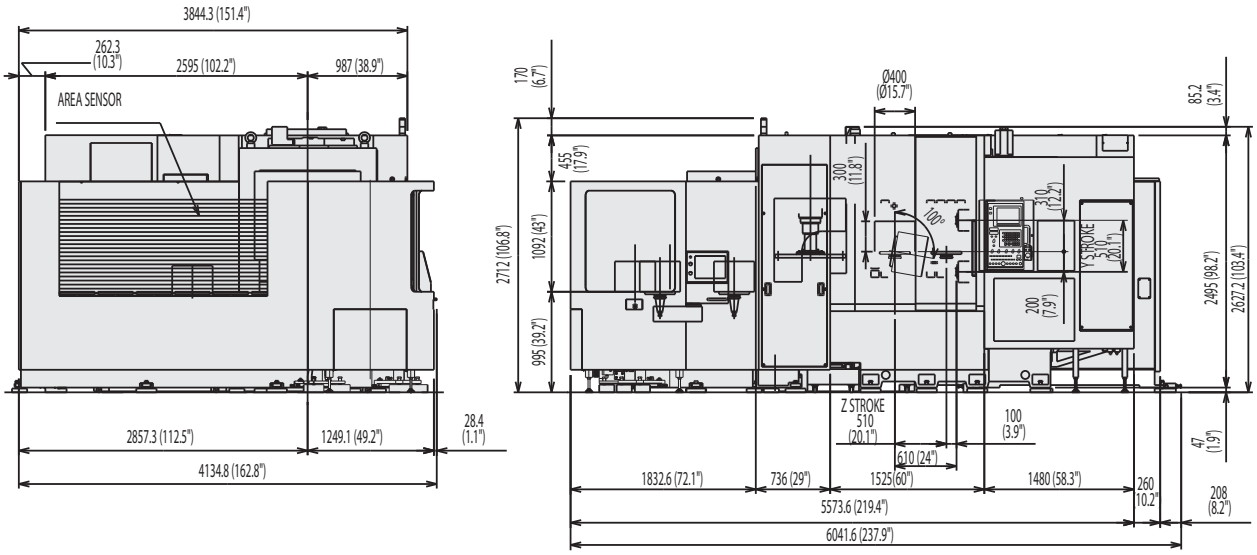
MYCENTER-SC300G

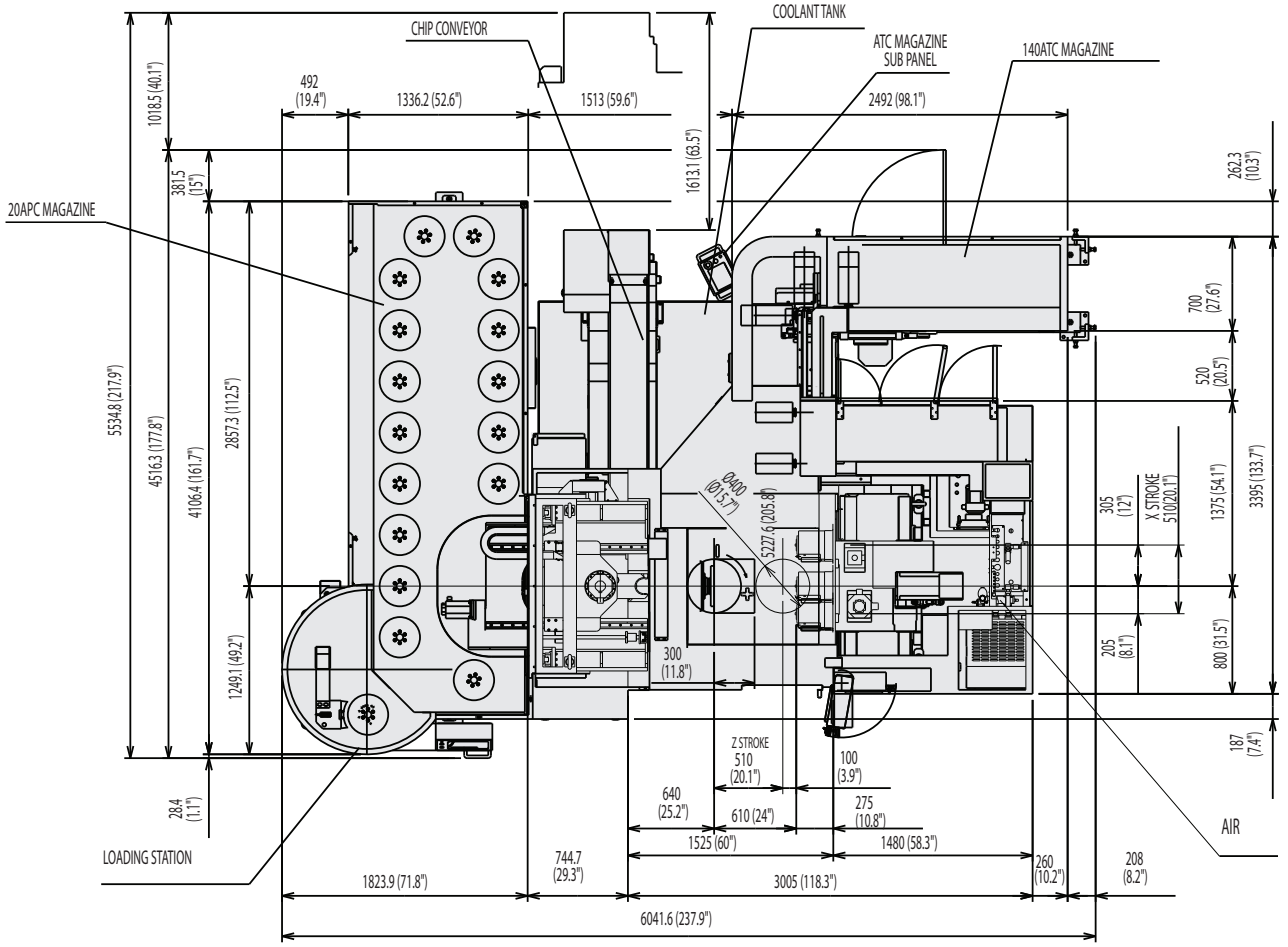




Specifications subject to change without notice.

MYCENTER-SC400





Specifications subject to change without notice.

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