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INTEGREX i NEO SERIES

Mazak



INTEGREX i NEO SERIES

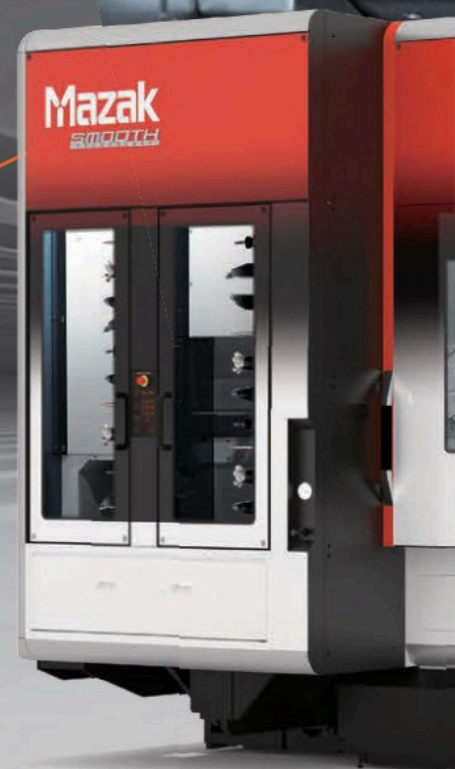
Multi-tasking machine series achieving high-efficiency and high-accuracy machining through the consolidation of production processes

By consolidating processes such as turning, milling, grinding and measurement into one single machine, many efficiencies can be achieved such as a reduction in production lead time and cost savings.

- The compact design of the milling spindle minimum interference and there are a variety of the spindle specifications available
- The machining and Y-axis stroke to expand the applicable workpieces size and shape
- Equipped with a high-accuracy built-in motor turning spindle
- A second spindle specification and lower turret specification are available to reduce cycle time
- Has a front tool magazine equipped for optimal tool setup for a wide variety of workpieces

INTEGREX i-350S NEO

Shown with optional equipment





Higher Productivity

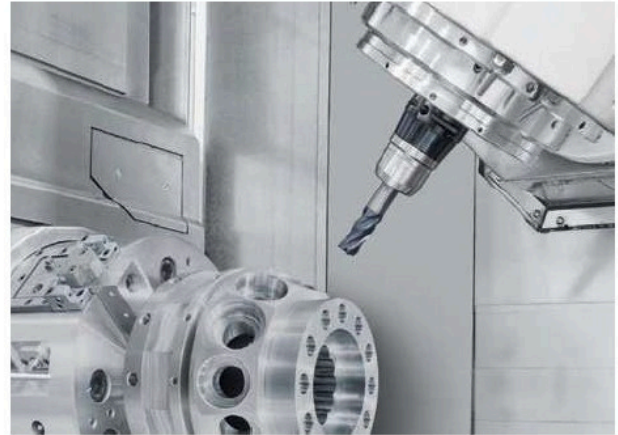
Milling spindle

The compact milling spindle with automatic tool changer enlarges the machining area and minimizes interference.

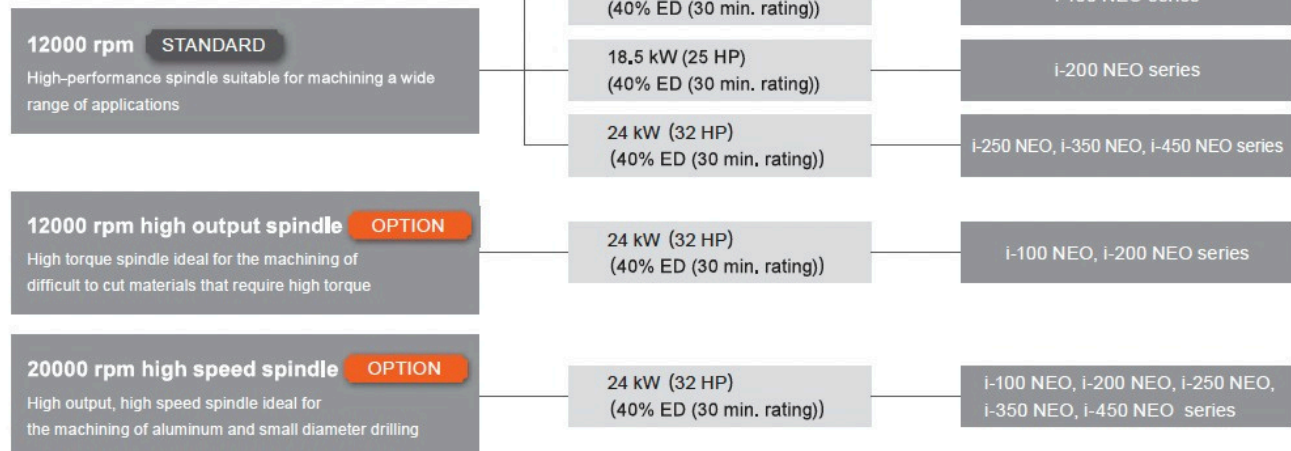
The 12000 rpm spindle can perform high efficiency machining of steel and castings.

An optional 20000 rpm spindle is designed for high speed machining of aluminium and small diameter machining.

A wide variety of spindle specifications to meet production requirements.



Milling spindle speed



NC tailstock

The operator can set the tailstock position on the setup screen and move the tailstock to another position by menu-key or M-code.

i-100 NEO	Tailstock center (dead center): MT No.4 Max. thrust : 2 kN (450 lbs)	
i-200 NEO	Tailstock center (dead center): MT No.5 Max. thrust : 7 kN (1574 lbs)	
	Tailstock center (built-in center): MT No.4 Max. thrust : 7 kN (1574 lbs)	OPTION
i-250 NEO	Tailstock center (built-in center): MT No.5 Max. thrust : 7 kN (1574 lbs)	
i-350 NEO i-450 NEO	Tailstock center (built-in center): MT No.5 Max. thrust : 10 kN (2248 lbs)	

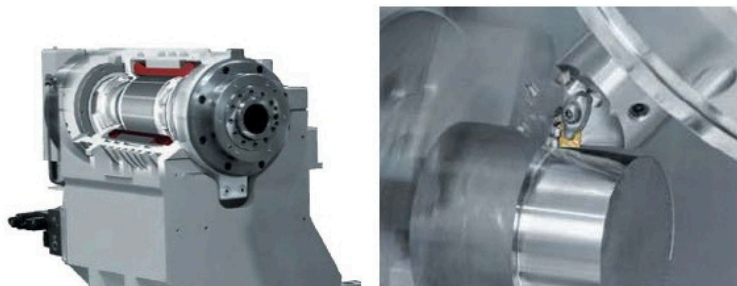


Main spindle

Powerful turning spindle

The integral spindle / motor has no gears or belts that can cause vibration ensuring excellent finished surfaces as well as high reliability.

The powerful, high torque INTEGREX i NEO series integral spindle / motor design provides fast machining cycle times.



i-100 NEO, i-100S NEO, i-100ST NEO

Spindle speed	6000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	11 kW (15 HP) / 7.5 kW (10 HP)
Max. torque (40% ED (30 min. rating))	159 N·m (117 ft·lbs)

i-350 NEO, i-350S NEO, i-350ST NEO

Spindle speed	4000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	30 kW (40 HP) / 22 kW (30 HP)
Max. torque (40% ED (30 min. rating))	724 N·m (534 ft·lbs)

i-200 NEO, i-200S NEO, i-200ST NEO
i-250 NEO, i-250S NEO, i-250ST NEO

Spindle speed	5000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	22 kW (30 HP) / 15 kW (20 HP)
Max. torque (40% ED (30 min. rating))	382 N·m (282 ft·lbs)

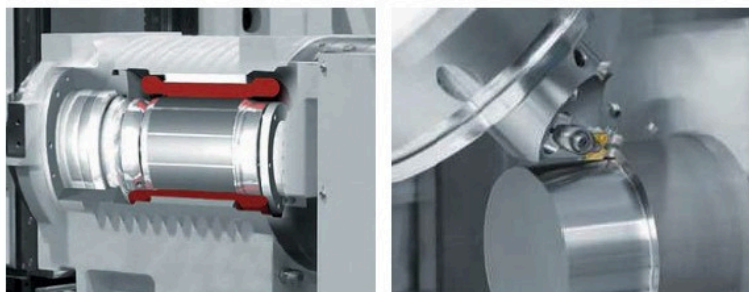
i-450 NEO, i-450S NEO, i-450ST NEO

Spindle speed	3300 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	37 kW (50 HP) / 30 kW (40 HP)
Max. torque (40% ED (30 min. rating))	1200 N·m (885 ft·lbs)

Second spindle

High-speed integral / spindle motor

Perform continuous machining of first and second processes. Rotation of first and second spindles can be synchronized for the in-phase radial positioning of a workpiece feature in the first and second processes.



i-100S NEO, i-100ST NEO

Spindle speed	6000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	11 kW (15 HP) / 7.5 kW (10 HP)
Max. torque (40% ED (30 min. rating))	159 N·m (117 ft·lbs)

i-350S NEO, i-350ST NEO
i-450S NEO, i-450ST NEO

Spindle speed	4000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	26 kW (35 HP) / 22 kW (30 HP)
Max. torque (40% ED (30 min. rating))	500 N·m (369 ft·lbs)

i-200S NEO, i-200ST NEO
i-250S NEO, i-250ST NEO

Spindle speed	5000 rpm
Spindle output (40% ED (30 min. rating) / cont. rating)	18.5 kW (25 HP) / 15 kW (20 HP)
Max. torque (40% ED (30 min. rating))	326 N·m (240 ft·lbs)

Higher Productivity

Tool magazine at the front of the machine



The tool magazine, ideal for high-mix low-volume production and situations requiring frequent tool changes, allows for the exchange of multiple tools from the front of the machine. It features a foldable temporary storage table at the lower front of the magazine, providing a place to temporarily set down tools brought in during the exchange process. Additionally, tool attachment and detachment can be performed easily and safely with a button reducing the risk of excessive force and tool drops. Tool shank types can be selected from the standard specification HSK-A63(T63) as well as optional CAPTOC6 and KM4X63.



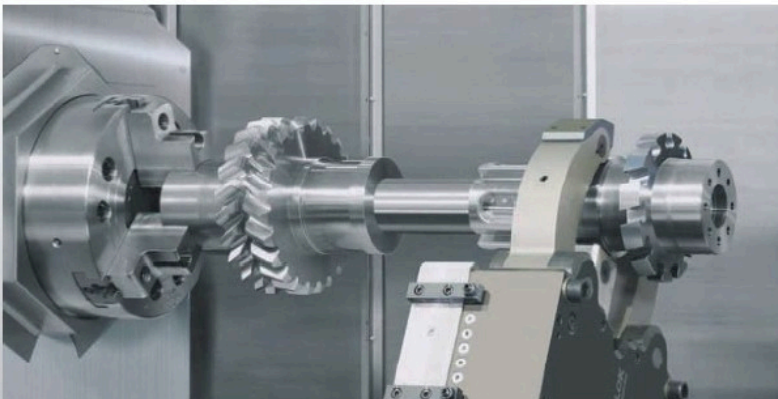
	i-100 NEO, i-200 NEO series	i-250 NEO, i-350 NEO, i-450 NEO series
Max. tool length	300 mm (11.81")	400 mm (15.75")
Max. tool diameter	Φ90 mm (Φ3.54") (Φ130 mm (Φ5.12") : when adjacent pockets empty)	
Max. tool weight	5 kg (11 lbs)	12 kg (26 lbs)
Tool holder shank	HSK-A63 (T63) (OPTION : CAPTO C6, KM4X63)	

Automatic steady rest

OPTION

A variety of steady rests are available for high accuracy and the efficient machining of long shaft workpieces.

i-250 NEO, i-250S NEO
i-350 NEO, i-350S NEO, i-450 NEO, i-450S NEO



Steady rest manufacturer / model	Gripping diameter
SMW SLU-X2	Φ8 to Φ101 mm (Φ0.31" to Φ3.98")
SMW SLU-X3	Φ12 to Φ152 mm (Φ0.47" to Φ5.98")
SMW SLU-X3.1	Φ20 to Φ165 mm (Φ0.79" to Φ6.50")
SMW SLU-X3.2	Φ50 to Φ200 mm (Φ1.97" to Φ7.87")
SMW SLU-X4	Φ30 to Φ245 mm (Φ1.18" to Φ9.65")
SMW K4	Φ52 to Φ280 mm (Φ2.05" to Φ11.02")
SMW K4.1	Φ90 to Φ330 mm (Φ3.54" to Φ12.99")

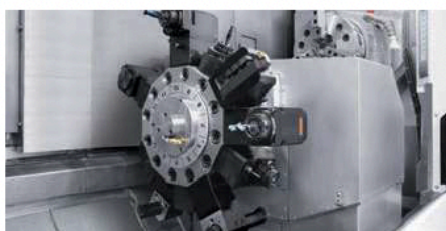
Not available for machines with a distance between centers of 1000U.

Two types of lower turret are available to meet a wide variety of production requirements. The high-rigidity lower turret seamlessly performs both turning and milling and cycle times can be reduced by continuous and simultaneous machining performed by both the main and second spindle. Cycle time can be reduced by continuous machining performed by the main and second spindle.

Orthogonal lower turret

Selectable as standard

The orthogonal lower turret performs a wide range of applications, such as balance cutting for an improved finished surface and machining with long boring bar and steady rest. The lower turret can be mounted by up to 12 rotary tools and performs 10000 rpm high speed machining. It reduces chip accumulation for automatic operation over extended periods of time.



Lower turret standard specifications

12 position drum turret for expanded range of machining.

Turret type	12 position drum turret	
Number of tools	12 tools	
Tool size	i-100ST NEO i-200ST NEO	Turning tool : 20 mm (0.79") Boring bar : $\Phi 32$ mm ($\Phi 1.26$ ")
	i-250ST NEO i-350ST NEO i-450ST NEO	Turning tool : 25mm (1") Boring bar Φ : 32 mm ($\Phi 1.26$ ")
Turret indexing	0.19 sec. / 1 step	

Lower turret with rotary tools

OPTION

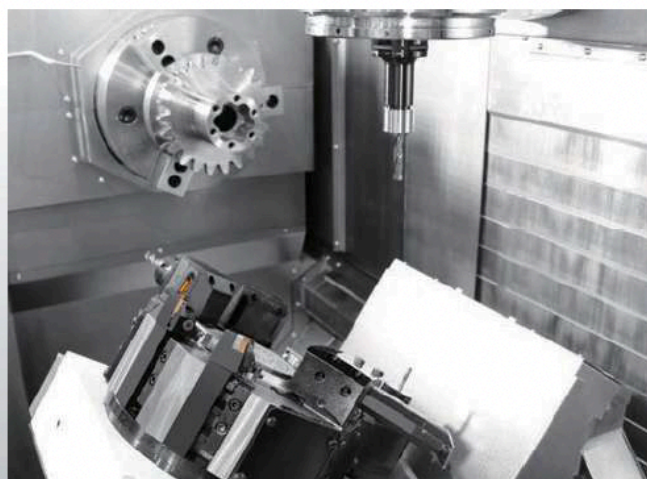
Improved productivity thanks to new rotary tools.

Number of tools	12 tools (Max. 12 rotary tools)	
Max. milling spindle speed	10000 rpm	
Milling spindle power (40% ED)	i-100ST NEO i-200ST NEO	AC 5.5 kW (7.5 HP)
Milling spindle power (40% ED)	i-250ST NEO i-350ST NEO i-450ST NEO	AC 7.5 kW (10 HP)
Max. torque (25% ED)	i-100ST NEO i-200ST NEO	30 N·m (22 ft·lbs)
Max. torque (10% ED)	i-250ST NEO i-350ST NEO i-450ST NEO	47.7 N·m (35 ft·lbs)
Tool size	i-100ST NEO i-200ST NEO	Drill $\Phi 16$ mm ($\Phi 0.63$ ") Tap M16 (5/8 UNC)
	i-250ST NEO i-350ST NEO i-450ST NEO	Drill $\Phi 20$ mm ($\Phi 0.79$ ") Tap M20 (3/4 UNC)

Slant lower turret

Selectable as standard

The same tool mounted on the lower turret can be used for machining on both the main and second spindles due to the unique turret designed to reduce the number of tool required. In addition, same machining program used by the INTEGREX i series can be utilized by the INTEGREX i NEO series.



Lower turret standard specifications

[i-100ST NEO, i-200ST NEO, i-250ST NEO, i-350ST NEO, i-450ST NEO]
9 position drum turret for expanded machining versatility

Turret type	9 position drum turret	
Number of tools	9 tools	
Tool size	i-100ST NEO i-200ST NEO	Turning tool 20 mm (0.79") Boring bar $\Phi 32$ mm ($\Phi 1.26$ ")
	i-250ST NEO i-350ST NEO i-450ST NEO	Turning tool 25 mm (1") Boring bar $\Phi 32$ mm ($\Phi 1.26$ ")
Turret indexing	0.14 sec. / 1 step	

Lower turret with rotary tools

OPTION

[i-250ST NEO, i-350ST NEO, i-450ST NEO]
Rotary tools can be mounted on the lower turret

Number of tools	9 tools (Max. 6 rotary tools)	
Max. milling spindle speed	6000 rpm	
Milling spindle power (40% ED)	AC 1.4 kW (2 HP)	
Max. torque (10% ED)	18 N·m (13 ft·lbs)	
Tool size	Drill $\Phi 14$ mm (0.55") Tap M12 (7/16 UNC)	

Innovation for Higher Productivity

MAZATROL *SMOOTH*Ai

New MAZATROL SmoothCNC

Designed to provide unsurpassed productivity through even faster and higher precision control while elevating your production to the next level with AI and digital twin technology

- Touch screen operation — similar to using your smartphone / tablet
- MAZATROL Smooth graphical user interface for unsurpassed ease of operation
- CNC System integrates with your Windows® PC
- Latest hardware and software for unprecedented speed and precision
- Higher machining speed for high accuracy 5-axis machining
- Fine tuning function- easy machining parameter setting for various workpieces
- Digital twin software that enables real-time sharing and centralized management of various data for increase productivity



■ Automation

Advanced automation utilizing robot and software



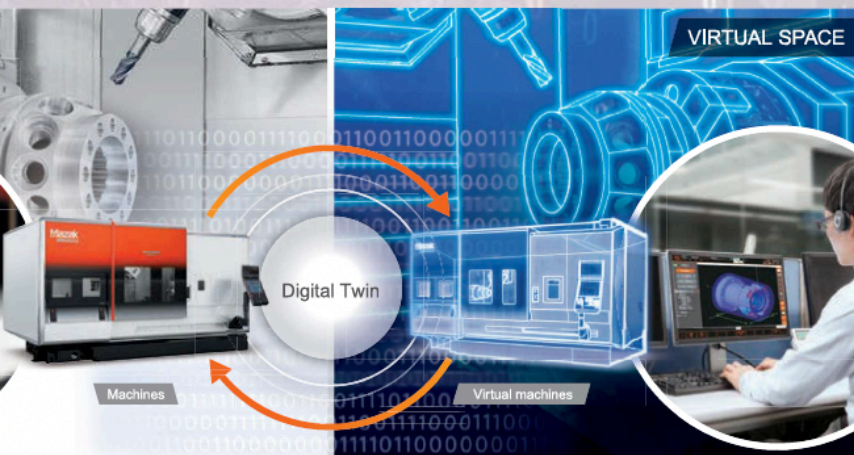
■ AI

Increase your productivity with
AI technology



■ Digital Twin

Create a virtual machine on your office PC for efficient setup and improved
productivity



Shown with optional MAZATROL SmoothAi dual monitor

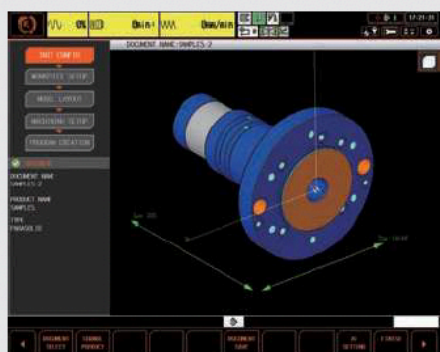
Innovative functions for higher productivity

Innovative functions to improve productivity from programming to machining

Automatic programming

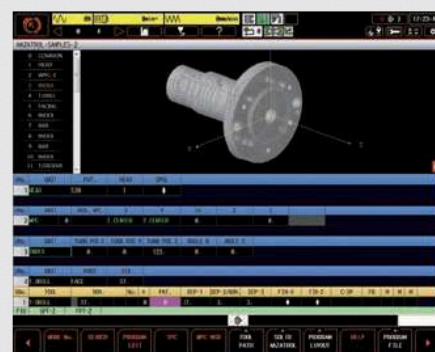
SOLID MAZATROL

A program is automatically generated from 3D CAD data. AI learning utilizes the machining know-how from the programs created in the past, automatically calculates the machining process, generating the optimal program.



Import 3D CAD model

Required
time for
programming
2.5 min.

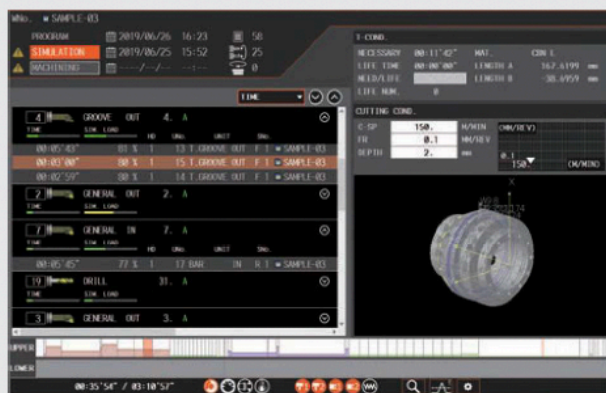


MAZATROL programming completed

Simulation, Test cutting (machining analysis-optimization)

CUTTING ADVISER

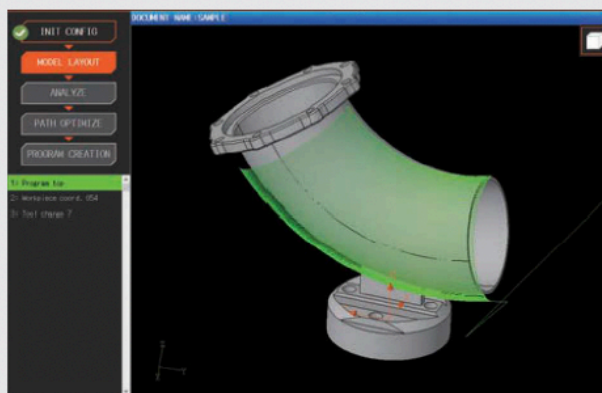
Cutting adviser optimizes machining conditions by machining simulation and visualization of machining process from accumulated machining results.



SMC PLUS

OPTION

Compares the cutting point of the EIA program with the 3D model so the correct command point can be changed to ensure the correct tool path and high accuracy finished surfaces.



Advanced digital technology

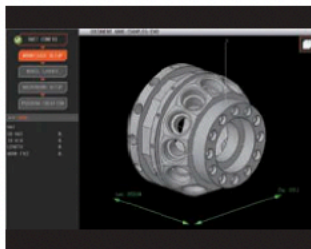
Digital twin software for high productivity

OPTION

Virtual machines in your office accurately duplicate the operation of machines on your factory floor. Available software can be used together with machines equipped with the MAZATROL CNC to substantially increase the efficiency of your production.

MAZATROL DX

Programs can be made and edited, as well as performing simulation and analysis on the MAZATROL DX / Smooth CAM Ai for multiple machines.



SOLID MAZATROL
Automatic programming



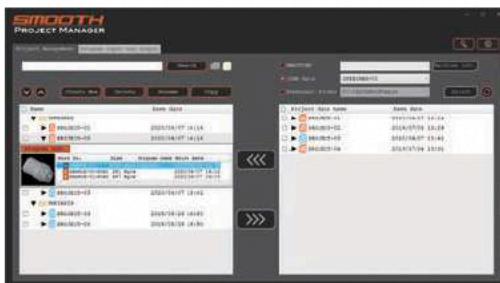
VIRTUAL MACHINING
Simulation



CUTTING ADVISER
Analysis

Smooth Project Manager

Smooth Project Manager is used to manage the project data of the entire factory. The data can be synchronized between the machine in the factory and the PC in the office.



Smooth Tool Management

The Smooth Tool Management software manages data of the large number of tools in use by a factory for higher productivity.



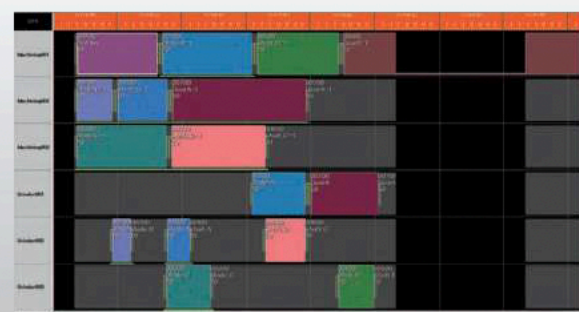
Smooth Monitor AX • Smooth Link

Machine status information is collected from the whole plant and is accumulated for production results, as well as production analysis.



Smooth Scheduler

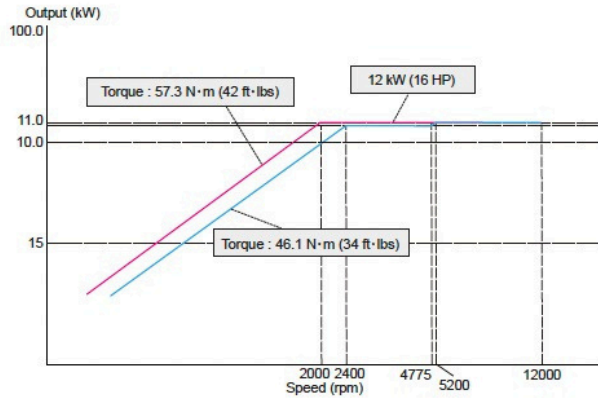
Smooth Scheduler is software to create effective machining schedules utilizing production data. Schedules are displayed for convenient monitoring of production progress.



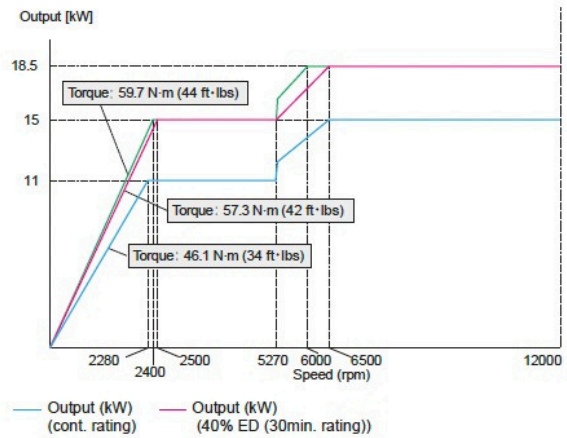
■ Milling spindle output / torque diagrams

— Output (kW) (cont. rating) — Output (kW) (40% ED (30 min. rating)) — Output (kW) (15% ED)

12000 rpm spindle
i-100 NEO series



12000 rpm spindle
i-200 NEO series

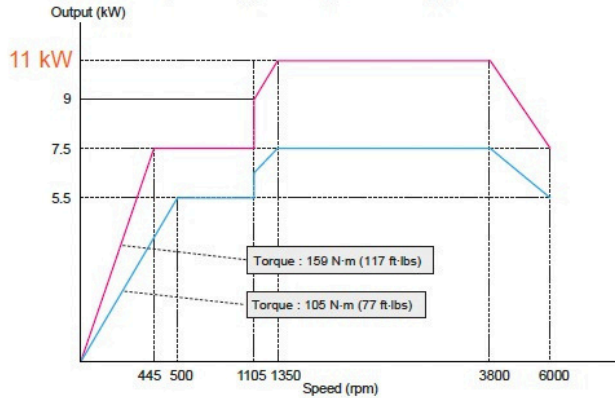


■ Main · Second spindle output / torque diagrams

Main spindle

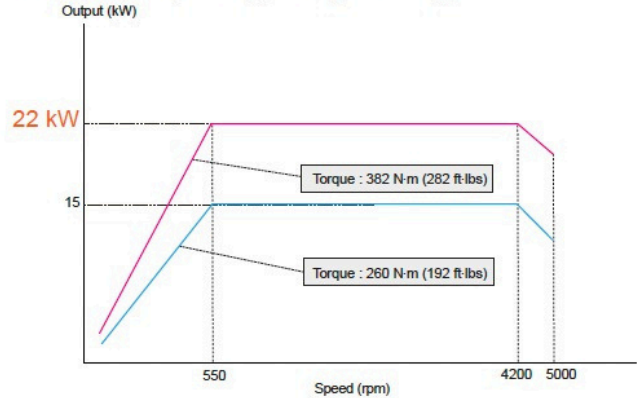
i-100 NEO, i-100S NEO, i-100ST NEO

Main spindle speed 6000 rpm
Main spindle power 11 kW (15 HP) (40% ED (30 min. rating)) 7.5 kW (10 HP) (cont. rating)
Max. torque 159 N·m (117 ft·lbs) (40% ED (30 min. rating))



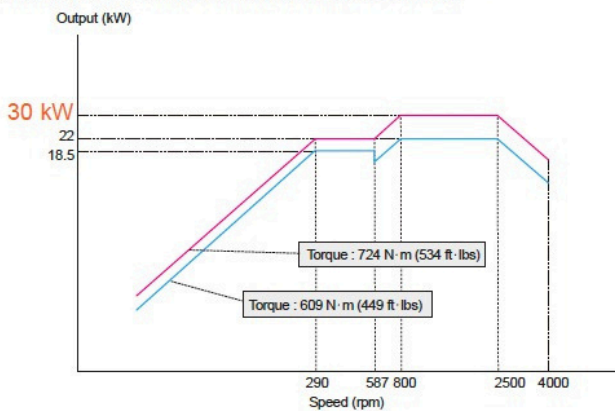
i-200 NEO, i-200S NEO, i-200ST NEO
i-250 NEO, i-250S NEO, i-250ST NEO

Main spindle speed 5000 rpm
Main spindle power 22 kW (30 HP) (40% ED (30 min. rating)) 15 kW (20 HP) (cont. rating)
Max. torque 382 N·m (282 ft·lbs) (40% ED (30 min. rating))



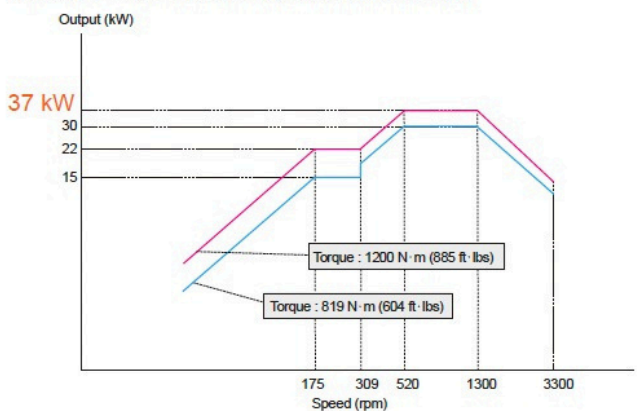
i-350 NEO, i-350S NEO, i-350ST NEO

Main spindle speed 4000 rpm
Main spindle power 30 kW (40 HP) (40% ED (30 min. rating)) 22 kW (30 HP) (cont. rating)
Max. torque 724 N·m (534 ft·lbs) (40% ED (30 min. rating))



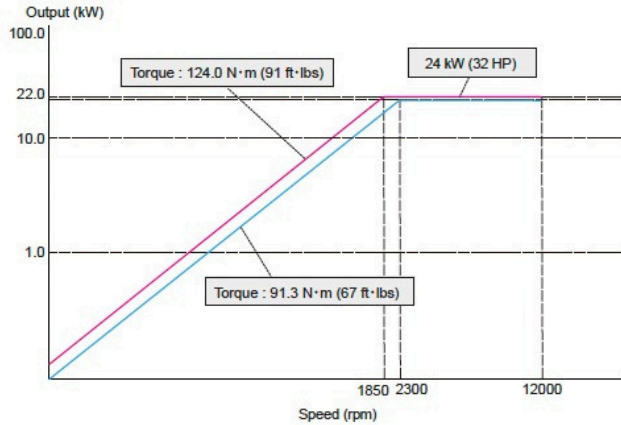
i-450 NEO, i-450S NEO, i-450ST NEO

Main spindle speed 3300 rpm
Main spindle power 37 kW (50 HP) (40% ED (30 min. rating)) 30 kW (40 HP) (cont. rating)
Max. torque 1200 N·m (885 ft·lbs) (40% ED (30 min. rating))



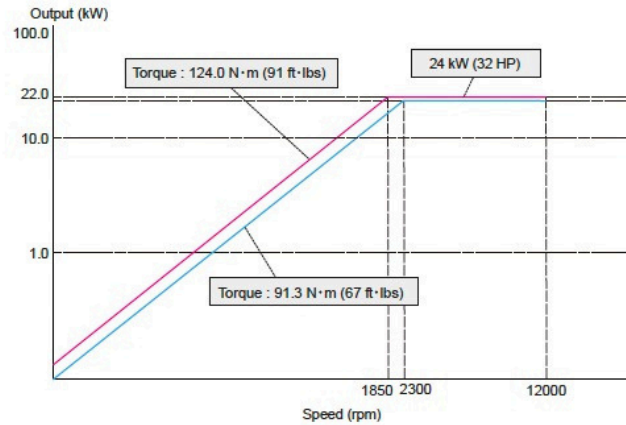
12000 rpm spindle

i-100 NEO, i-200 NEO series **OPTION**
i-250 NEO, i-350 NEO, i-450 NEO series



20000 rpm High-speed spindle **OPTION**

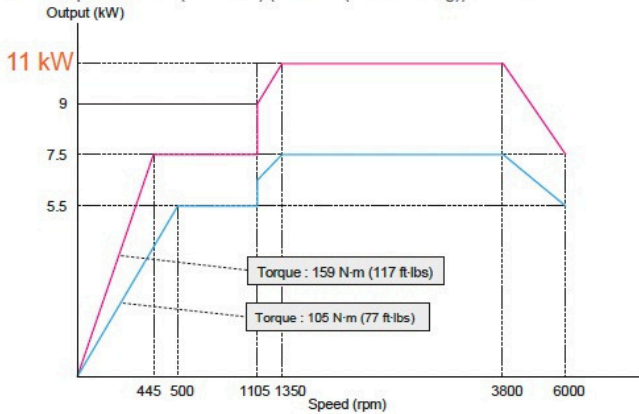
i-100 NEO, i-200 NEO, i-250 NEO, i-350 NEO, i-450 NEO series



Second spindle

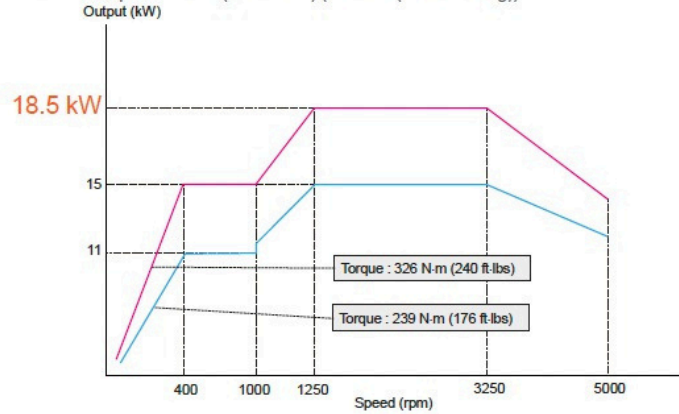
i-100S NEO, i-100ST NEO

Second spindle speed 6000 rpm
Second spindle power 11 kW (15 HP) (40% ED (30 min. rating)) 7.5 kW (10 HP) (cont. rating)
Max. torque 159 N·m (117 ft·lbs) (40% ED (30 min. rating))



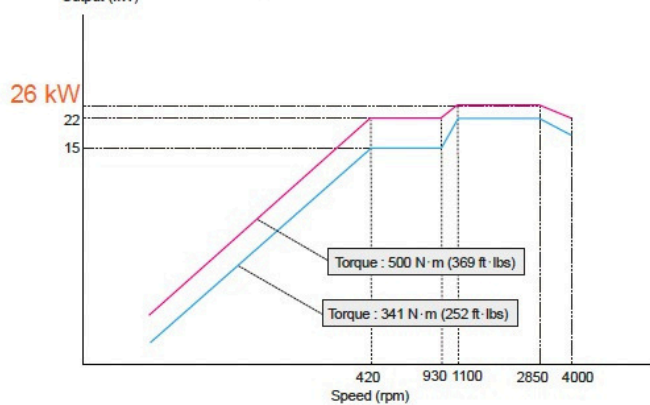
i-200S NEO, i-200ST NEO
i-250S NEO, i-250ST NEO

Second spindle speed 5000 rpm
Second spindle power 18.5 kW (25 HP) (40% ED (30 min. rating)) 15 kW (20 HP) (cont. rating)
Max. torque 326 N·m (240 ft·lbs) (40% ED (30 min. rating))



i-350S NEO, i-350ST NEO
i-450S NEO, i-450ST NEO

Second spindle speed 4000 rpm
Second spindle power 26 kW (35 HP) (40% ED (30 min. rating)) 22 kW (30 HP) (cont. rating)
Max. torque 500 N·m (369 ft·lbs) (40% ED (30 min. rating))



Standard Machine Specifications

		i-100 NEO	i-100S NEO	i-100ST NEO	i-200 NEO	i-200S NEO	i-200ST NEO
		590U	850U	850U	590U	850U	850U
Capacity	Max. swing	Φ600 mm (Φ23.62")					
	Max. machining diameter (upper turret)	Φ600 mm (Φ23.62")					
	(lower turret)	—		Φ400 mm (Φ15.75")	—		Φ400 mm (Φ15.75")
	Max. machining length*1	590 mm (23.23")	850 mm (33.46")		590 mm (23.23")	850 mm (33.46")	
Max. bar work capacity*1		Φ52 mm (Φ2.05")			Φ65 mm		
Travel	X-axis travel	535 mm (21.06")					
	Z-axis travel	640 mm (25.20")	900 mm (35.43")		640 mm (25.20")	900 mm (35.43")	
	Y-axis travel	210 mm (8.27")					
	X2-axis travel (lower turret)	—		210 mm (8.27")	—		210 mm (8.27")
	Z2-axis travel (lower turret)	—		900 mm (35.43")	—		900 mm (35.43")
	B-axis indexing range	-30° to +210°					
Main spindle	Chuck size	6"			8"		
	Main spindle speed*1	6000 rpm			5000 rpm		
	Main spindle nose	A2-5			A2-6		
	Main spindle bore	Φ61 mm (Φ2.40")			Φ76 mm (Φ2.99")		
	Bearing I.D.	Φ90 mm (Φ3.54")			Φ120 mm (Φ4.72")		
	Min. indexing increment	0.0001°					
Second spindle	Chuck size	—	6"		—	8"	
	Second spindle speed*1	—	6000 rpm		—	5000 rpm	
	Second spindle travel (W-axis)	—	900 mm (35.43")		—	900 mm (35.43")	
	Second spindle nose	—	A2-5		—	A2-6	
	Second spindle bore	—	Φ61 mm (Φ2.40")		—	Φ76 mm (Φ2.99")	
	Bearing I.D.	—	Φ90 mm (Φ3.54")		—	Φ120 mm (Φ4.72")	
Min. indexing increment		—	0.0001°		—	0.0001°	
Milling spindle	Milling spindle type	Spindle turret with ATC					
	Milling spindle speed	12000 rpm					
	Max. milling spindle torque (40% ED (30 min. rating))	57.3 N·m (42 ft · lbs)					
	Turning tool shank height	25 mm (1")					
	Boring bar shank diameter	Φ40 mm (Φ1.57")					
	Min. B-axis indexing increment	0.0001°					
Lower turret*2	Turret type	—		12 position drum turret	—		12 position drum turret
	Number of tools	—		12	—		12
	Turning tool shank height	—		20 mm (0.79")	—		20 mm (0.79")
	Boring bar shank diameter	—		Φ32 mm (Φ1.26")	—		Φ32 mm (Φ1.26")
Feedrate	Rapid traverse rate : X-axis	48 m/min (1890 IPM)					
	Rapid traverse rate : Z-axis	40 m/min (1575 IPM)					
	Rapid traverse rate : Y-axis	40 m/min (1575 IPM)					
	Rapid traverse rate : X2-axis	—		40 m/min (1575 IPM)	—		40 m/min (1575 IPM)
	Rapid traverse rate : Z2-axis	—		40 m/min (1575 IPM)	—		40 m/min (1575 IPM)
	Rapid traverse rate : W-axis	8 m/min (315 IPM)	30 m/min (1181 IPM)		8 m/min (315 IPM)	30 m/min (1181 IPM)	
Automatic tool changer system	Tool holder shank	HSK-A63 (T63)					
	Tool storage capacity	36 tools					
	Max. tool diameter / length (from gauge line)	Φ90 mm (Φ3.54") (when adjacent pockets empty : Φ130 mm (Φ5.12")) / 300 mm (11.81")					
	Max. tool weight	5 kg (11 lbs)					
Tool selection method		Random selection, shortest path (fixed pocket assignment)					
Motors	Spindle motor (40% ED (30 min. rating) / cont. rating)	11 kW (15 HP) / 7.5 kW (10 HP)			22 kW (30 HP) / 15 kW (20 HP)		
	Second spindle motor (40% ED (30 min. rating) / cont. rating)	—	11 kW (15 HP) / 7.5 kW (10 HP)		—	18.5 kW (25 HP) / 15 kW (20 HP)	
	Milling spindle motor (40% ED (30 min. rating) / cont. rating)	12kW (16HP) / 11kW (15HP)			18.5 kW (25 HP) / 15 kW (20 HP)		
	Required power capacity (cont. rating)	28.36 kVA	34.52 kVA	41.79 kVA	34.58 kVA	55.66 kVA	57.92 kVA
Power requirement	Air source	0.5 MPa (73 PSI), 500 L (17.66 ft³)/min (Max.)	0.5 MPa (73 PSI), 510 L (18.01 ft³)/min (Max.)	0.5 MPa (73 PSI), 830 L (29.31 ft³)/min (Max.)	0.5 MPa (73 PSI), 500 L (17.66 ft³)/min (Max.)	0.5 MPa (73 PSI), 510 L (18.01 ft³)/min (Max.)	0.5 MPa (73 PSI), 830 L (29.31 ft³)/min (Max.)
	Coolant	Tank capacity		270 L (71 gal)	300 L (79 gal)	270 L (71 gal)	
Machine size	Machine height	2445 mm (96.26")		2615 mm (102.95")	2445 mm (96.26")		2615 mm (102.95")
	Width × length	3415 mm × 2735 mm (134.45" × 107.68")			3505 mm × 2735 mm (137.99" × 107.68")		
	Weight	9930 kg (21892 lbs)	10830 kg (23876 lbs)	11530 kg (25419 lbs)	10780 kg (23765 lbs)	11130 kg (24537 lbs)	11830 kg (26080 lbs)

*1 Depends on chuck specifications

*2 Orthogonal lower turret specification

		i-250 NEO		i-250S NEO		i-250ST NEO
		1000U	1500U	1000U	1500U	1500U
Capacity	Max. swing	Φ670 mm (Φ26.38")				
	Max. machining diameter (upper turret)	Φ670 mm (Φ26.38")				
	(lower turret)	—				
	Max. machining length*1	1011 mm (39.80")	1519 mm (59.80")	1011 mm (39.80")	1519 mm (59.80")	
	Max. bar work capacity*1	Φ65 mm (Φ2.56")				
Travel	X-axis travel	695 mm (27.36")				
	Z-axis travel	1077 mm (42.40")	1585 mm (62.40")	1077 mm (42.40")	1585 mm (62.40")	
	Y-axis travel	300 mm (11.81")				
	X2-axis travel (lower turret)	—				
	Z2-axis travel (lower turret)	—				
	B-axis indexing range	-30° to +210°				
Main spindle	Chuck size	8"				
	Main spindle speed*1	5000 rpm				
	Main spindle nose	A2-6				
	Main spindle bore	Φ76 mm (Φ2.99")				
	Bearing I.D.	Φ120 mm (Φ4.72")				
	Min. indexing increment	0.0001°				
Second spindle	Chuck size	—		8"		
	Second spindle speed*1	—		5000 rpm		
	Second spindle travel (W-axis)	—		1061 mm (41.77")	1569 mm (61.77")	1539 mm (60.59")
	Second spindle nose	—		A2-6		
	Second spindle bore	—		Φ76 mm (Φ2.99")		
	Bearing I.D.	—		Φ120 mm (Φ4.72")		
	Min. indexing increment	—		0.0001°		
Milling spindle	Milling spindle type	Spindle turret with ATC				
	Milling spindle speed	12000 rpm				
	Max. milling spindle torque (40% ED (30 min. rating))	124 N·m (91 ft·lbs)				
	Turning tool shank height	25 mm (1")				
	Boring bar shank diameter	Φ40 mm (Φ1.57")				
	Min. B-axis indexing increment	0.0001°				
Lower turret*2	Turret type	—				12 position drum turret
	Number of tools	—				12
	Turning tool shank height	—				25 mm (1")
	Boring bar shank diameter	—				Φ32 mm (Φ1.26")
Feedrate	Rapid traverse rate : X-axis	50 m/min (1969 IPM)				
	Rapid traverse rate : Z-axis	50 m/min (1969 IPM)				
	Rapid traverse rate : Y-axis	40 m/min (1575 IPM)				
	Rapid traverse rate : X2-axis	—				40 m/min (1575 IPM)
	Rapid traverse rate : Z2-axis	—				40 m/min (1575 IPM)
	Rapid traverse rate : W-axis	8 m/min (315 IPM)		30 m/min (1181 IPM)		
Automatic tool changer system	Tool holder shank	HSK-A63 (T63)				
	Tool storage capacity	36 tools				
	Max. tool diameter / length (from gauge line)	Φ90 mm (Φ3.54") (when adjacent pockets empty : Φ130 mm (Φ5.12")) / 400 mm (15.75")				
	Max. tool weight	12 kg (26 lbs)				
	Tool selection method	Random selection, shortest path (fixed pocket assignment)				
Motors	Spindle motor (40% ED (30 min. rating) / cont. rating)	22 kW (30 HP) / 15 kW (20 HP)				
	Second spindle motor (40% ED (30 min. rating) / cont. rating)	—		18.5 kW (25 HP) / 15 kW (20 HP)		
	Milling spindle motor (40% ED (30 min. rating) / cont. rating)	24 kW (32 HP) / 22 kW (30 HP)				
Power requirement	Required power capacity (cont. rating)	48.08 kVA		65.63 kVA		77.85 kVA
	Air source	0.5 MPa (73 PSI), 950 L (33.55 ft³)/min (Max.)		0.5 MPa (73 PSI), 980 L (34.61 ft³)/min (Max.)		0.5 MPa (73 PSI), 1180 L (41.67 ft³)/min (Max.)
Coolant	Tank capacity	395 L (104 gal)	490 L (129 gal)	395 L (104 gal)	490 L (129 gal)	
Machine size	Machine height	2715 mm (106.89")				
	Width × length	4175 mm × 3115 mm (164.37" × 122.64")	4995 mm × 3115 mm (196.65" × 122.64")	4175 mm × 3115 mm (164.37" × 122.64")	4995 mm × 3115 mm (196.65" × 122.64")	
	Weight	13150 kg (28990 lbs)	14450 kg (31856 lbs)	13450 kg (29652 lbs)	14750 kg (32518 lbs)	16500 kg (36376 lbs)

*1 Depends on chuck specifications

*2 Orthogonal lower turret specification

■ Standard Machine Specifications

		i-350 NEO			i-350S NEO		i-350ST NEO
		1000U	1500U	2500U	1500U	2500U	1500U
Capacity	Max. swing	Φ670 mm (Φ26.38")					
	Max. machining diameter (upper turret)	Φ670 mm (Φ26.38")					
	(lower turret)	—					Φ420 mm (Φ16.54")
	Max. machining length*1	1011 mm (39.80")	1519 mm (59.80")	2500 mm (98.43")	1519 mm (59.80")	2500 mm (98.43")	1519 mm (59.80")
	Max. bar work capacity*1	Φ80 mm (Φ3.15")					
Travel	X-axis travel	695 mm (27.36")					
	Z-axis travel	1077 mm (42.40")	1585 mm (62.40")	2566 mm (101.02")	1585 mm (62.40")	2566 mm (101.02")	1585 mm (62.40")
	Y-axis travel	300 mm (11.81")					
	X2-axis travel (lower turret)	—					220 mm (8.66")
	Z2-axis travel (lower turret)	—					1539 mm (60.59")
	B-axis indexing range	-30° to +210°					
Main spindle	Chuck size	10"					
	Main spindle speed*1	4000 rpm					
	Main spindle nose	A2-8					
	Main spindle bore	Φ91 mm (Φ3.58")					
	Bearing I.D.	Φ130 mm (Φ5.12")					
	Min. indexing increment	0.0001°					
Second spindle	Chuck size	—			10"		
	Second spindle speed*1	—			4000 rpm		
	Second spindle travel (W-axis)	—			1569 mm (61.77")	2175 mm(85.63")	1539 mm (60.59")
	Second spindle nose	—			A2-8		
	Second spindle bore	—			Φ91 mm (Φ3.58")		
	Bearing I.D.	—			Φ130 mm (Φ5.12")		
	Min. indexing increment	—			0.0001°		
Milling spindle	Milling spindle type	Spindle turret with ATC					
	Milling spindle speed	12000 rpm					
	Max. milling spindle torque (40% ED (30 min. rating) / cont. rating)	124 N·m (91 ft·lbs)					
	Turning tool shank height	25 mm (1")					
	Boring bar shank diameter	Φ40 mm (Φ1.57")					
	Min. B-axis indexing increment	0.0001°					
Lower turret*2	Turret type	—					12 position drum turret
	Number of tools	—					12
	Turning tool shank height	—					25 mm (1")
	Boring bar shank diameter	—					Φ32 mm (Φ1.26")
Feedrate	Rapid traverse rate : X-axis	50 m/min (1969 IPM)					
	Rapid traverse rate : Z-axis	50 m/min (1969 IPM)	40 m/min (1575 IPM)	50 m/min (1969 IPM)	40 m/min (1575 IPM)	50 m/min (1969 IPM)	50 m/min (1969 IPM)
	Rapid traverse rate : Y-axis	40 m/min (1575 IPM)					
	Rapid traverse rate : X2-axis	—					40 m/min (1575 IPM)
	Rapid traverse rate : Z2-axis	—					40 m/min (1575 IPM)
	Rapid traverse rate : W-axis	8 m/min (315 IPM)	30 m/min (1181 IPM)	18 m/min (709 IPM)	30 m/min (1181 IPM)	30 m/min (1181 IPM)	30 m/min (1181 IPM)
Automatic tool changer system	Tool holder shank	HSK-A63 (T63)					
	Tool storage capacity	36 tools					
	Max. tool diameter / length (from gauge line)	Φ90 mm (Φ3.54") (when adjacent pockets empty : Φ130 mm (Φ5.12")) / 400 mm (15.75")					
	Max. tool weight	12 kg (26 lbs)					
	Tool selection method	Random selection, shortest path (fixed pocket assignment)					
Motors	Spindle motor (40% ED (30 min. rating) / cont. rating)	30 kW (40 HP) / 22 kW (30 HP)					
	Second spindle motor (40% ED (30 min. rating) / cont. rating)	—			26 kW (35 HP) / 22 kW (30 HP)		
	Milling spindle motor (40% ED (30 min. rating) / cont. rating)	24 kW (32 HP) / 22 kW (30 HP)					
Power requirement	Required power capacity (cont. rating)	48,67 kVA		49,47 kVA	80,29 kVA	81,08 kVA	83,05 kVA
	Air source	0.5 MPa (73 PSI), 950 L (33.55 ft³)/min (Max.)			0.5 MPa (73 PSI), 980 L (34.61 ft³)/min (Max.)		0.5 MPa (73 PSI), 1180 L (41.67 ft³)/min (Max.)
Coolant	Tank capacity	395 L (104 gal)	490 L (129 gal)	624 L (165 gal)	490 L (129 gal)	624 L (165 gal)	490 L (129 gal)
Machine size	Machine height	2715 mm (106.89")					
	Width × length	4175 mm × 3115 mm (164,37" × 122,64")	4995 mm × 3115 mm (196,65" × 122,64")	6070 mm × 3115 mm (238,98" × 122,64")	4995 mm × 3115 mm (196,65" × 122,64")	6070 mm × 3115 mm (238,98" × 122,64")	4995 mm × 3115 mm (196,65" × 122,64")
	Weight	13450 kg (24537 lbs)	14750 kg (32518 lbs)	17100 kg (37698 lbs)	15050 kg (33179 lbs)	17400 kg (38360 lbs)	16800 kg (37037 lbs)

*1 Depends on chuck specifications

*2 Orthogonal lower turret specification

		i-450 NEO			i-450S NEO		i-450ST NEO	
		1000U	1500U	2500U	1500U	2500U	1500U	
Capacity	Max. swing	Φ670 mm (Φ26.38")						
	Max. machining diameter (upper turret)	Φ670 mm (Φ26.38")						
	(lower turret)	—						
	Max. machining length*1	1011 mm (39.80")	1519 mm (59.80")	2500 mm (98.43")	1519 mm (59.80")	2500 mm (98.43")	Φ420 mm (Φ16.54")	
	Max. bar work capacity*1	Φ102 mm (Φ4.02")						
Travel	X-axis travel	695 mm (27.36")						
	Z-axis travel	1077 mm (42.40")	1585 mm (62.40")	2566 mm (101.02")	1585 mm (62.40")	2566 mm (101.02")	1585 mm (62.40")	
	Y-axis travel	300 mm (11.81")						
	X2-axis travel (lower turret)	—					220 mm (8.66")	
	Z2-axis travel (lower turret)	—					1539 mm (60.59")	
	B-axis indexing range	-30° to +210°						
Main spindle	Chuck size	12"						
	Main spindle speed*1	3300 rpm						
	Main spindle nose	A2-11						
	Main spindle bore	Φ112 mm (Φ4.41")						
	Bearing I.D.	Φ150 mm (Φ5.91")						
	Min. indexing increment	0.0001°						
Second spindle	Chuck size	—			10"			
	Second spindle speed*1	—			4000 rpm			
	Second spindle travel (W-axis)	—			1569 mm (61.77")	2175 mm(85.63")	1539 mm (60.59")	
	Second spindle nose	—			A2-8			
	Second spindle bore	—			Φ91 mm (Φ3.58")			
	Bearing I.D.	—			Φ130 mm (Φ5.12")			
	Min. indexing increment	—			0.0001°			
Milling spindle	Milling spindle type	Spindle turret with ATC						
	Milling spindle speed	12000 rpm						
	Max. milling spindle torque (40% ED (30 min. rating) / cont. rating)	124 N·m (91 ft·lbs)						
	Turning tool shank height	25 mm (1")						
	Boring bar shank diameter	Φ40 mm (Φ1.57")						
	Min. B-axis indexing increment	0.0001°						
Lower turret*2	Turret type	—					12 position drum turret	
	Number of tools	—					12	
	Turning tool shank height	—					25 mm (1")	
	Boring bar shank diameter	—					Φ32 mm (Φ1.26")	
Feedrate	Rapid traverse rate : X-axis	50 m/min (1969 IPM)						
	Rapid traverse rate : Z-axis	50 m/min (1969 IPM)	40 m/min (1575 IPM)	50 m/min (1969 IPM)	40 m/min (1575 IPM)	50 m/min (1969 IPM)		
	Rapid traverse rate : Y-axis	40 m/min (1575 IPM)						
	Rapid traverse rate : X2-axis	—					40 m/min (1575 IPM)	
	Rapid traverse rate : Z2-axis	—					40 m/min (1575 IPM)	
	Rapid traverse rate : W-axis	8 m/min (315 IPM)	30 m/min (1181 IPM)		18 m/min (709 IPM)	30 m/min (1181 IPM)		
Automatic tool changer system	Tool holder shank	HSK-A63 (T63)						
	Tool storage capacity	36 tools						
	Max. tool diameter / length (from gauge line)	Φ90 mm (Φ3.54") (when adjacent pockets empty : Φ130 mm (Φ5.12")) / 400 mm (15.75")						
	Max. tool weight	12 kg (26 lbs)						
	Tool selection method	Random selection, shortest path (fixed pocket assignment)						
Motors	Spindle motor (40% ED (30 min. rating) / cont. rating)	37 kW (50 HP) / 30 kW (40 HP)						
	Second spindle motor (40% ED (30 min. rating) / cont. rating)	—			26 kW (35 HP) / 22 kW (30 HP)			
	Milling spindle motor (40% ED (30 min. rating) / cont. rating)	24 kW (32 HP) / 22 kW (30 HP)						
	Required power capacity (cont. rating)	59.78 kVA			60.85 kVA	91.38 kVA	92.44 kVA	94.18 kVA
Power requirement	Air source	0.5 MPa (73 PSI), 950 L (33.55 ft³)/min (Max.)			0.5 MPa (73 PSI), 980 L (34.61 ft³)/min (Max.)		0.5 MPa (73 PSI), 1180 L (41.67 ft³)/min (Max.)	
Coolant	Tank capacity	395 L (104 gal)	490 L (129 gal)	624 L (165 gal)	490 L (129 gal)	624 L (165 gal)	490 L (129 gal)	
Machine size	Machine height	2715 mm (106.89")						
	Width × length	4175 mm × 3115 mm (164.37" × 122.64")	4995 mm × 3115 mm (196.65" × 122.64")	6070 mm × 3115 mm (238.98" × 122.64")	4995 mm × 3115 mm (196.65" × 122.64")	6070 mm × 3115 mm (238.98" × 122.64")	4995 mm × 3115 mm (196.65" × 122.64")	
	Weight	13750 kg (30313 lbs)	15050 kg (33179 lbs)	17400 kg (38360 lbs)	15350 kg (33840 lbs)	17700 kg (390021 lbs)	17100 kg(37698 lbs)	

*1 Depends on chuck specifications

*2 Orthogonal lower turret specification

■ Standard and Optional Equipment

INTEGREX i-100 NEO series INTEGREX i-200 NEO series

●: Standard ○: Option - : N/A

Machine		i-100 NEO		i-200 NEO	
		S	ST	S	ST
	Main spindle 0.0001° indexing / C-axis control	●	●	●	●
	Second spindle 0.001° indexing (without C-axis)	—	●	—	●
	Second spindle 0.0001° indexing / C-axis control / synchronization function	—	○	—	○
	12D orthogonal lower turret*	—	—	●	—
	Lower turret with rotary tools	—	—	○	—
	Main spindle hydraulic chuck (6" non through-hole chuck)	●	○	○	—
	Main spindle hydraulic chuck (6" through-hole chuck)	○	●	●	—
	Main spindle hydraulic chuck (6" through-hole chuck with 5 jaws)	○	○	○	—
	Main spindle hydraulic chuck (Φ100mm (Φ3.94") collet chuck)	○	○	○	—
	Second spindle hydraulic chuck (6" through-hole chuck + non-through-hole cylinder)	—	●	—	—
	Main spindle hydraulic chuck (8" non through-hole chuck)	—	—	—	○
	Main spindle hydraulic chuck (8" through-hole chuck)	—	—	—	○
	Main spindle hydraulic chuck (10" non through-hole chuck)	—	—	—	○
	Main spindle hydraulic chuck (10" through-hole chuck)	—	—	—	○
	Second spindle hydraulic chuck (8" through-hole chuck + non-through-hole cylinder)	—	—	—	●
	Second spindle hydraulic chuck (10" through-hole chuck + non-through-hole cylinder)	—	—	—	○
	Workpiece stopper inside spindle	○	○	○	○
	Y-axis control	●	●	●	●
	B-axis 0.0001° indexing / contouring (EIA)	●	●	●	●
	Milling spindle 12000 rpm (HSK-A63)	●	●	●	●
	Milling spindle 12000 rpm (CAPTO C6 / KM4X-63)	○	○	○	○
	Milling spindle 20000 rpm (HSK-T63 / CAPTO C6 / KM4X-63)	○	○	○	○
	High output milling spindle 12000 rpm (HSK-A63 / CAPTO C6 / KM4X-63)	○	○	○	○
	36 tool magazine (HSK)	●	●	●	●
	36 tool magazine (CAPTO / KM4X)	○	○	○	○
	72 tool magazine (HSK / CAPTO / KM4X)	○	○	○	○
	110 tool magazine (HSK / CAPTO / KM4X)	○	○	○	○
	Tailstock MT No.4 (dead center)	●	—	—	—
	Tailstock MT No.5 (dead center)	—	—	—	●
	Tailstock MT No.4 (built-in)	—	—	—	○
	Work light	●	●	●	●
	Programmed chuck pressure control	○	○	○	○
	Double foot pedal switch	○	○	○	○
	3 color machine status light (square)	○	○	○	○
	1 color machine status light (yellow : operation end / square)	○	○	○	○
	1 color machine status light (red : alarm / square)	○	○	○	○
High accuracy	X-axis, Y-axis, Z-axis ball screw core cooling	●	●	●	●
	Mazak monitoring system B (RMP60QE)	○	○	○	○
	Preparation for Mazak monitoring system B (RMP60QE)	○	○	○	○
	Scale feedback (B-axis)	●	●	●	●
	Scale feedback (X-, Y-, Z-axis)	○	○	○	○
	Scale feedback (X2-axis for lower turret)	—	—	●	—
	Scale feedback (Z2-axis for lower turret)	—	—	○	—
	Absolute position detection (linear axis)	●	●	●	●
Safety equipment	Hydraulic pressure interlock	●	●	●	●
	Operator door interlock	●	●	●	●
	Overload detection system	○	○	○	○
	Tool breakage detection on magazine side	○	○	○	○
Factory automation	Tool eye (upper turret / automatic)	●	●	●	●
	Tool eye (lower turret / automatic)	—	—	●	—
	Automatic chuck jaw open / close	●	●	●	●
	Chuck jaw open / close confirmation	●	●	●	●
	Automatic opening / closing front door	○	○	○	○
	Automatic power ON / OFF + warm-up system	●	●	●	●
	Machining end buzzer	○	○	○	○
	Preparation for visual tool ID / data management	○	○	○	○
	Robot interface	○	○	○	○
Coolant / Chip disposal	Cover coolant	●	●	●	●
	Flood coolant	●	●	●	●
	Simultaneous discharge of 0.5 MPa (73 PSI) coolant through spindle and flood coolant (upper turret)	●	●	●	●
	Simultaneous discharge of 1.5 MPa (218 PSI) high pressure coolant through spindle and flood coolant (upper turret)	○	○	○	○
	Simultaneous discharge of 7.0 MPa (1015 PSI) SUPERFLOW coolant system and 0.5 MPa (73 PSI) flood coolant (upper turret)	○	○	○	○
	Flood coolant for lower turret	—	—	●	—
	Shower coolant (main spindle side)	○	○	●	○
	Shower coolant (second spindle side)	○	○	○	○
	Oil skimmer	○	○	○	○
	Coolant temperature control	○	○	○	○
	Mist collector	○	○	○	○
	Coolant & air blast for chuck jaws (main spindle)	○	○	○	○
	Air blast through spindle	○	○	○	○
	Air blast for chuck jaws (main spindle)	○	○	○	○
	Air blast for chuck jaws (second spindle)	—	●	—	●
Others	Preparation for chip conveyor (side disposal / hinge)	●	●	●	●
	Preparation for chip conveyor (side disposal / ConSep)	○	○	○	○
	Chip conveyor (side disposal / hinge)	○	○	○	○
	Chip conveyor (side disposal / ConSep)	○	○	○	○
	Chip bucket (rotating)	○	○	○	○
	Chip bucket (fixed)	○	○	○	○
	Manuals (USB)	●	●	●	●
	Additional manuals (USB or paper)	○	○	○	○
	MAZATROL SmoothAi dual monitor	○	○	○	○

* 1 9D lower turret (slant type) available

INTEGREX i-250 NEO series

•: Standard ○: Option -: N/A

		i-250 NEO					i-250 NEO		
			S	ST				S	ST
Machine	Main spindle 0.0001° indexing / C-axis control	•	•	•	Factory automation	Tool eye (upper turret / automatic)	•	•	•
	Second spindle 0.001° indexing (without C-axis)	—	•	•		Tool eye (lower turret / automatic)	—	—	•
	Second spindle 0.0001° indexing / C-axis control / synchronization function	—	○	○		Automatic chuck jaw open / close	•	•	•
	12D orthogonal lower turret *1	—	—	•		Chuck jaw open / close confirmation	•	•	•
	Lower turret with rotary tools	—	—	○		Automatic opening / closing front door	○	○	○
	Main spindle hydraulic chuck (8" through-hole chuck)	•	•	•		Automatic power ON / OFF + warm-up system	•	•	•
	Main spindle hydraulic chuck (10" through-hole chuck)	○	○	○		Machining end buzzer	○	○	○
	Second spindle hydraulic chuck (8" through-hole chuck + non-through-hole cylinder)	—	•	•		Preparation for visual tool ID / data management	○	○	○
	Second spindle hydraulic chuck (10" through-hole chuck + non-through-hole cylinder)	—	○	○		Robot interface	○	○	○
	Workpiece stopper inside spindle	○	○	○	Coolant / Chip disposal	Cover coolant	•	•	•
	Y-axis control	•	•	•		Flood coolant	•	•	•
	B-axis 0.0001° indexing / contouring (EIA)	•	•	•		Simultaneous discharge of 0.5 MPa (73 PSI) coolant through spindle and flood coolant (upper turret)	•	•	•
	Milling spindle 12000 rpm (HSK-A63)	•	•	•		Simultaneous discharge of 1.5 MPa (218 PSI) high pressure coolant through spindle and flood coolant (upper turret)	○	○	○
	Milling spindle 12000 rpm (CAPTO C6 / KM4X-63)	○	○	○		Simultaneous discharge of 7.0 MPa (1015 PSI) SUPERFLOW coolant system and 0.5 MPa (73 PSI) flood coolant (upper turret)	○	○	○
	Milling spindle 20000 rpm (HSK-T63 / CAPTO C6 / KM4X-63)	○	○	○		Flood coolant for lower turret	—	—	•
	36 tool magazine (HSK)	•	•	•		Shower coolant (main spindle side)	○	○	•
	36 tool magazine (CAPTO / KM4X)	○	○	○		Shower coolant (second spindle side)	○	○	○
	72 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Oil skimmer	○	○	○
	110 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Coolant temperature control	○	○	○
	Tailstock MT No.5 (built-in)	•	—	—		Mist collector	○	○	○
High accuracy	Work light	•	•	•		Coolant & air blast for chuck jaws (main spindle)	○	○	○
	Programmed chuck pressure control	○	○	○		Air blast through spindle	○	○	○
	Double foot pedal switch	○	○	○		Air blast for chuck jaws (main spindle)	○	○	○
	3 color machine status light (square)	○	○	○		Air blast for chuck jaws (second spindle)	—	•	•
	1 color machine status light (yellow : operation end / square)	○	○	○		Preparation for chip conveyor (side disposal / hinge)	•	•	•
	1 color machine status light (red : alarm / square)	○	○	○		Preparation for chip conveyor (side disposal / ConSep)	○	○	○
	X-axis, Y-axis, Z-axis ball screw core cooling	•	•	•		Chip conveyor (side disposal / hinge)	○	○	○
	Mazak monitoring system B (RMP60QE)	○	○	○		Chip conveyor (side disposal / ConSep)	○	○	○
	Preparation for Mazak monitoring system B (RMP60QE)	○	○	○		Chip bucket (rotating)	○	○	○
	Scale feedback (B-axis)	•	•	•		Chip bucket (fixed)	○	○	○
Safety equipment	Scale feedback (X-, Y-, Z-axis)	○	○	○	Others	Manuals (USB)	•	•	•
	Scale feedback (X2-axis for lower turret)	—	—	•		MAZATROL SmoothAi dual monitor	○	○	○
	Scale feedback (Z2-axis for lower turret)	—	—	○					
	Absolute position detection (linear axis)	•	•	•					
	Hydraulic pressure interlock	•	•	•					
	Operator door interlock	•	•	•					
	Overload detection system	○	○	○					
	Tool breakage detection on magazine side	○	○	○					

*1 9D lower turret (slant type) available

■ Standard and Optional Equipment

INTEGREX i-350 NEO series

●: Standard ○: Option —: N/A

		i-350 NEO					i-350 NEO		
			S	ST				S	ST
Machine	Main spindle 0.0001° indexing / C-axis control	●	●	●	Factory automation	Tool eye (upper turret / automatic)	●	●	●
	Second spindle 0.001° indexing (without C-axis)	—	●	●		Tool eye (lower turret / automatic)	—	—	●
	Second spindle 0.0001° indexing / C-axis control / synchronization function	—	○	○		Automatic chuck jaw open / close	●	●	●
	12D orthogonal lower turret*1	—	—	●		Chuck jaw open / close confirmation	●	●	●
	Lower turret with rotary tools	—	—	○		Automatic opening / closing front door	○	○	○
	Main spindle hydraulic chuck (10" through-hole chuck)	●	●	●		Automatic power ON / OFF + warm-up system	●	●	●
	Main spindle hydraulic chuck (12" through-hole chuck)	○	○	○		Machining end buzzer	○	○	○
	Second spindle hydraulic chuck (10" through-hole chuck + non-through-hole cylinder)	—	●	●		Preparation for visual tool ID / data management	○	○	○
	Second spindle hydraulic chuck (12" through-hole chuck + non-through-hole cylinder)	—	○	○		Robot interface	○	○	○
	Workpiece stopper inside spindle	○	○	○	Coolant / Chip disposal	Cover coolant	●	●	●
	Y-axis control	●	●	●		Flood coolant	●	●	●
	B-axis 0.0001° indexing / contouring (EIA)	●	●	●		Simultaneous discharge of 0.5 MPa (73 PSI) coolant through spindle and flood coolant (upper turret)	●	●	●
	Milling spindle 12000 rpm (HSK-A63)	●	●	●		Simultaneous discharge of 1.5 MPa (218 PSI) high pressure coolant through spindle and flood coolant (upper turret)	○	○	○
	Milling spindle 12000 rpm (CAPTO C6 / KM4X-63)	○	○	○		Simultaneous discharge of 7.0 MPa (1015 PSI) SUPERFLOW coolant system and 0.5 MPa (73 PSI) flood coolant (upper turret)	○	○	○
	Milling spindle 20000 rpm (HSK-T63 / CAPTO C6 / KM4X-63)	○	○	○		Flood coolant for lower turret	—	—	●
	36 tool magazine (HSK)	●	●	●		Shower coolant (main spindle side)	○	○	●
	36 tool magazine (CAPTO / KM4X)	○	○	○		Shower coolant (second spindle side)	○	○	○
	72 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Oil skimmer	○	○	○
	110 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Coolant temperature control	○	○	○
	Tailstock MT No.5 (built-in)	●	—	—	Others	Mist collector	○	○	○
	Work light	●	●	●		Coolant & air blast for chuck jaws (main spindle)	○	○	○
	Programmed chuck pressure control	○	○	○		Air blast through spindle	○	○	○
	Double foot pedal switch	○	○	○		Air blast for chuck jaws (main spindle)	○	○	○
	3 color machine status light (square)	○	○	○		Air blast for chuck jaws (second spindle)	—	●	●
	1 color machine status light (yellow : operation end / square)	○	○	○		Preparation for chip conveyor (side disposal / hinge)	●	●	●
	1 color machine status light (red : alarm / square)	○	○	○		Preparation for chip conveyor (side disposal / ConSep)	○	○	○
High accuracy	X-axis, Y-axis, Z-axis ball screw core cooling	●	●	●		Chip conveyor (side disposal / hinge)	○	○	○
	Mazak monitoring system B (RMP60QE)	○	○	○		Chip conveyor (side disposal / ConSep)	○	○	○
	Preparation for Mazak monitoring system B (RMP60QE)	○	○	○		Chip bucket (rotating)	○	○	○
	Scale feedback (B-axis)	●	●	●		Chip bucket (fixed)	○	○	○
	Scale feedback (X-, Y-, Z-axis)	○	○	○					
	Scale feedback (X2-axis for lower turret)	—	—	●					
	Scale feedback (Z2-axis for lower turret)	—	—	○					
	Absolute position detection (linear axis)	●	●	●					
Safety equipment	Hydraulic pressure interlock	●	●	●		Manuals (USB)	●	●	●
	Operator door interlock	●	●	●		MAZATROL SmoothAi dual monitor	○	○	○
	Overload detection system	○	○	○					
	Tool breakage detection on magazine side	○	○	○					

*1 9D lower turret (slant type) available

INTEGREX i-450 NEO series

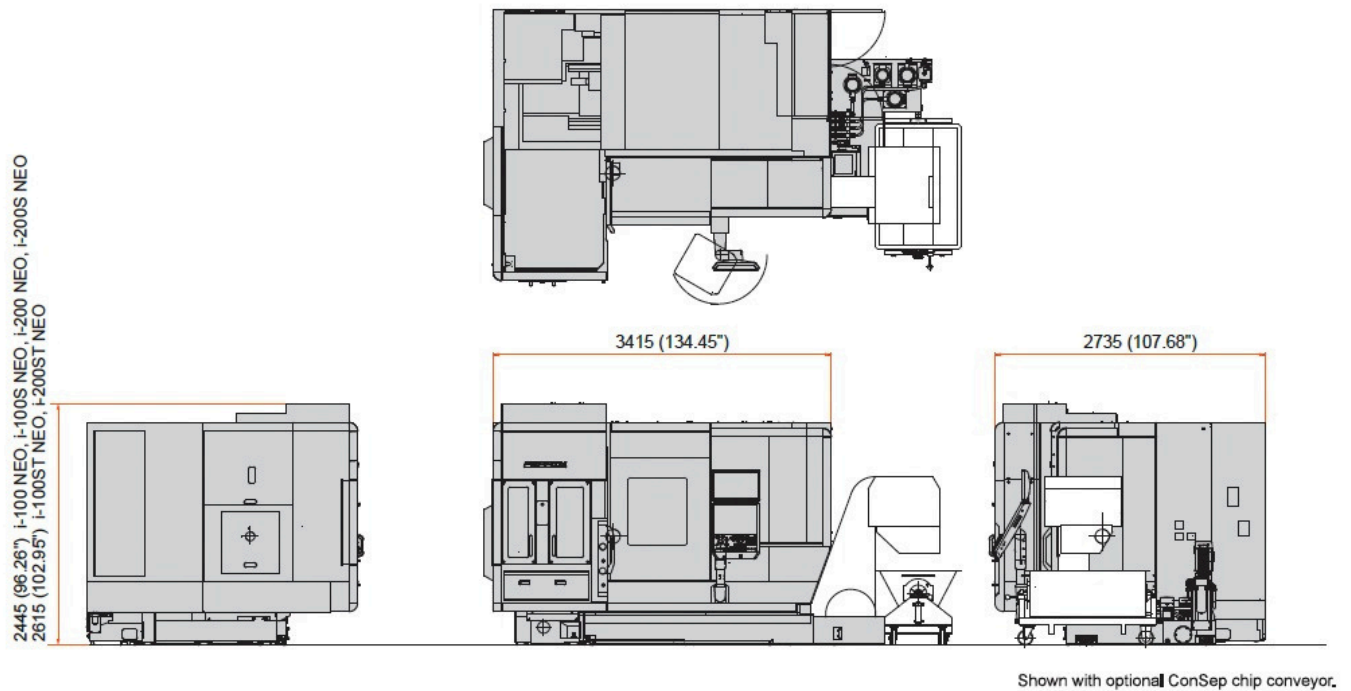
•: Standard ○: Option -: N/A

		i-450 NEO					i-450 NEO		
			S	ST				S	ST
Machine	Main spindle 0.0001° indexing / C-axis control	•	•	•	Factory automation	Tool eye (upper turret / automatic)	•	•	•
	Second spindle 0.001° indexing (without C-axis)	—	•	•		Tool eye (lower turret / automatic)	—	—	•
	Second spindle 0.0001° indexing / C-axis control / synchronization function	—	○	○		Automatic chuck jaw open / close	•	•	•
	12D orthogonal lower turret *1	—	—	•		Chuck jaw open / close confirmation	•	•	•
	Lower turret with rotary tools	—	—	○		Automatic opening / closing front door	○	○	○
	Main spindle hydraulic chuck (12" through-hole chuck)	•	•	•		Automatic power ON / OFF + warm-up system	•	•	•
	Main spindle hydraulic chuck (15" through-hole chuck)	○	○	○		Machining end buzzer	○	○	○
	Second spindle hydraulic chuck (10" through-hole chuck + non-through-hole cylinder)	—	•	•		Preparation for visual tool ID / data management	○	○	○
	Second spindle hydraulic chuck (12" through-hole chuck + non-through-hole cylinder)	—	○	○		Robot interface	○	○	○
	Workpiece stopper inside spindle	○	○	○	Coolant / Chip disposal	Cover coolant	•	•	•
	Y-axis control	•	•	•		Flood coolant	•	•	•
	B-axis 0.0001° indexing / contouring (EIA)	•	•	•		Simultaneous discharge of 0.5 MPa (73 PSI) coolant through spindle and flood coolant (upper turret)	•	•	•
	Milling spindle 12000 rpm (HSK-A63)	•	•	•		Simultaneous discharge of 1.5 MPa (218 PSI) high pressure coolant through spindle and flood coolant (upper turret)	○	○	○
	Milling spindle 12000 rpm (CAPTO C6 / KM4X-63)	○	○	○		Simultaneous discharge of 7.0 MPa (1015 PSI) SUPERFLOW coolant system and 0.5 MPa (73 PSI) flood coolant (upper turret)	○	○	○
	Milling spindle 20000 rpm (HSK-T63 / CAPTO C6 / KM4X-63)	○	○	○		Flood coolant for lower turret	—	—	•
	36 tool magazine (HSK)	•	•	•		Shower coolant (main spindle side)	○	○	•
	36 tool magazine (CAPTO / KM4X)	○	○	○		Shower coolant (second spindle side)	○	○	○
	72 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Oil skimmer	○	○	○
	110 tool magazine (HSK / CAPTO / KM4X)	○	○	○		Coolant temperature control	○	○	○
	Tailstock MT No.5 (built-in)	•	—	—	Others	Mist collector	○	○	○
	Work light	•	•	•		Coolant & air blast for chuck jaws (main spindle)	○	○	○
	Programmed chuck pressure control	○	○	○		Air blast through spindle	○	○	○
	Double foot pedal switch	○	○	○		Air blast for chuck jaws (main spindle)	○	○	○
	3 color machine status light (square)	○	○	○		Air blast for chuck jaws (second spindle)	—	•	•
	1 color machine status light (yellow : operation end / square)	○	○	○		Preparation for chip conveyor (side disposal / hinge)	•	•	•
	1 color machine status light (red : alarm / square)	○	○	○		Preparation for chip conveyor (side disposal / ConSep)	○	○	○
High accuracy	X-axis, Y-axis, Z-axis ball screw core cooling	•	•	•		Chip conveyor (side disposal / hinge)	○	○	○
	Mazak monitoring system B (RMP60QE)	○	○	○		Chip conveyor (side disposal / ConSep)	○	○	○
	Preparation for Mazak monitoring system B (RMP60QE)	○	○	○		Chip bucket (rotating)	○	○	○
	Scale feedback (B-axis)	•	•	•		Chip bucket (fixed)	○	○	○
	Scale feedback (X-, Y-, Z-axis)	○	○	○					
	Scale feedback (X2-axis for lower turret)	—	—	•					
	Scale feedback (Z2-axis for lower turret)	—	—	○					
Safety equipment	Absolute position detection (linear axis)	•	•	•					
	Hydraulic pressure interlock	•	•	•					
	Operator door interlock	•	•	•					
	Overload detection system	○	○	○					
	Tool breakage detection on magazine side	○	○	○					

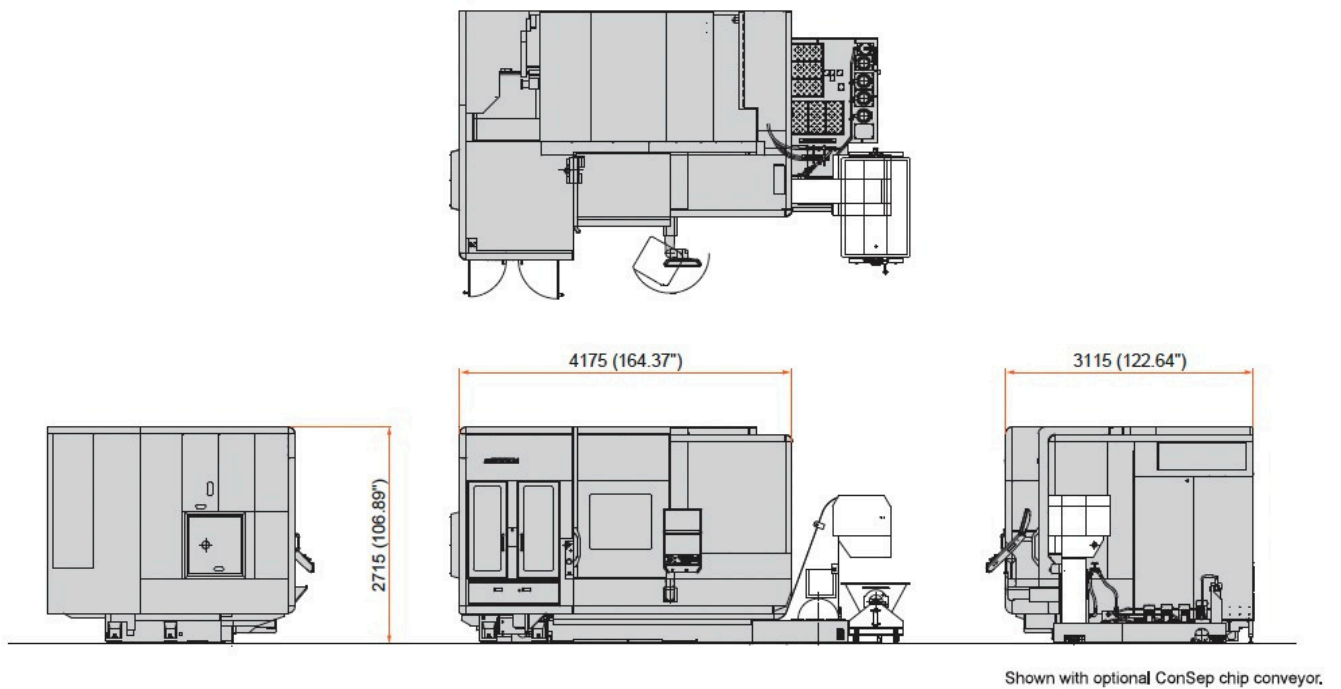
*1 9D lower turret (slant type) available

Machine Dimensions

INTEGREX i-100 NEO, i-100S NEO, i-100ST NEO, i-200 NEO, i-200S NEO, i-200ST NEO

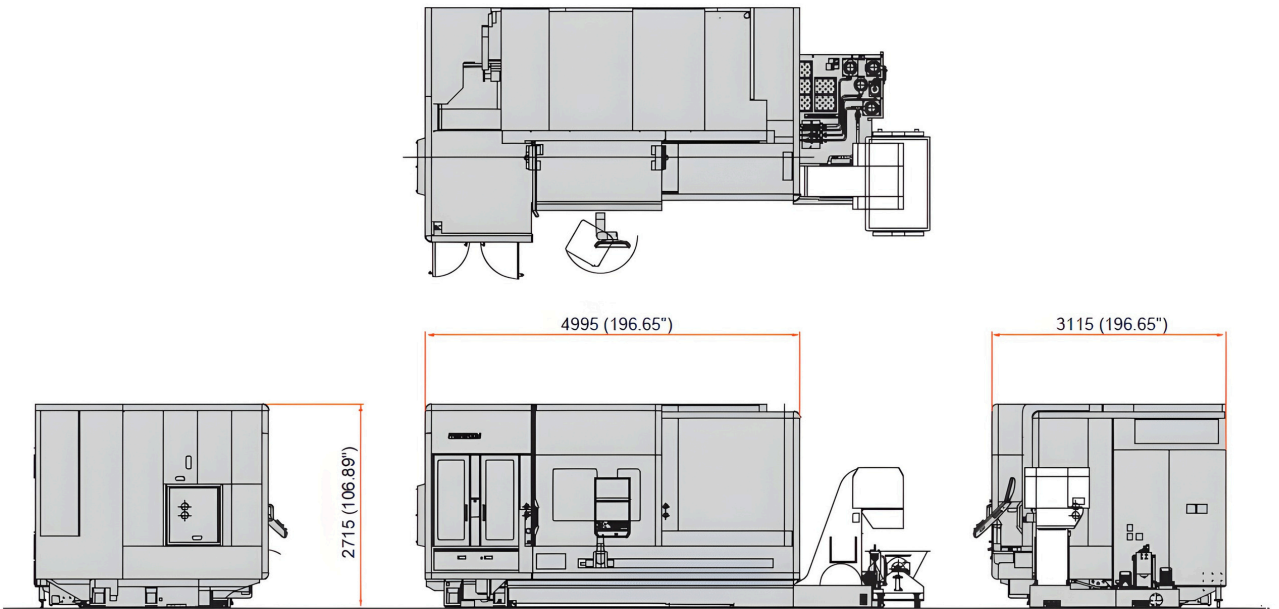


INTEGREX i-250 NEO, i-250S NEO, i-350 NEO, i-450 NEO (1000U)



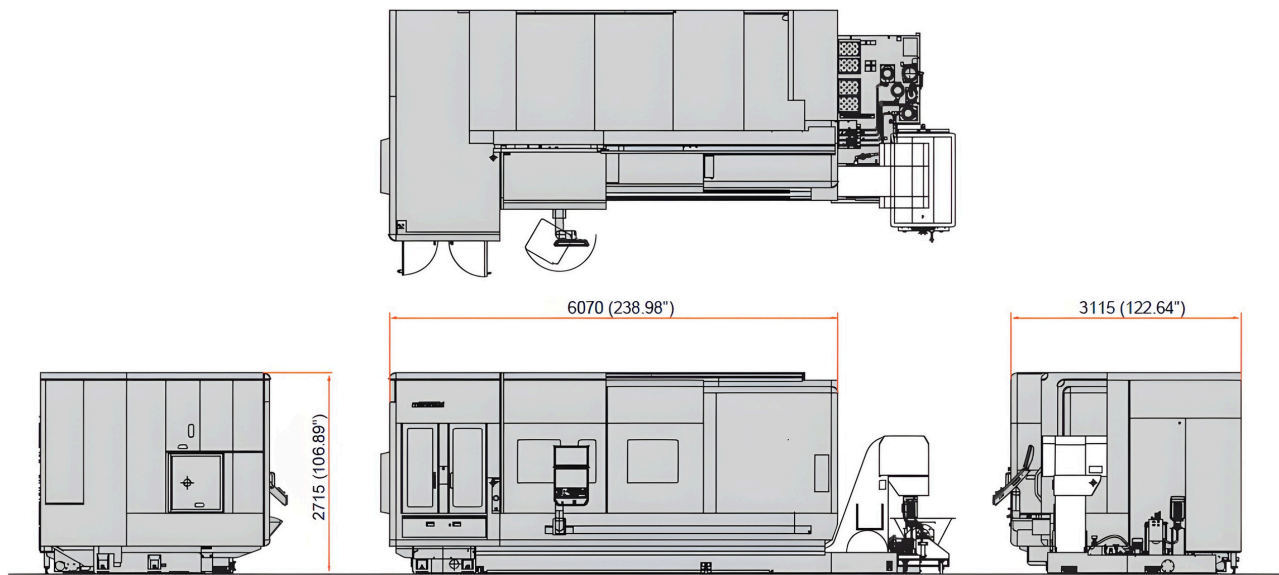
Unit : mm (inch)

INTEGREX i-250 NEO, i-250S NEO, i-250ST NEO, i-350 NEO, i-350S NEO, i-350ST NEO, i-450 NEO, i-450S NEO, i-450ST NEO (1500U)



Shown with optional ConSep chip conveyor.

INTEGREX i-350 NEO, i-350S NEO, i-450 NEO, i-450S NEO (2500U)



Shown with optional ConSep chip conveyor.



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