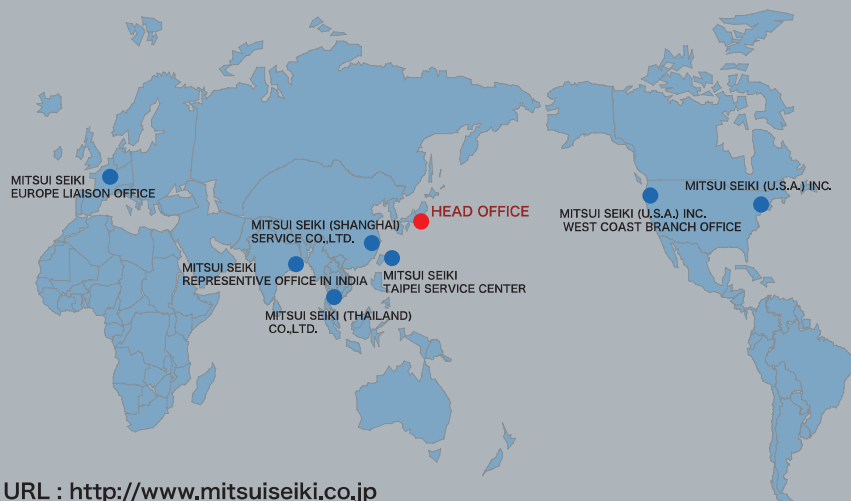




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MACHINE TOOLS



MITSUI SEIKI KOGYO CO.,LTD.



JQA-Q904



JQA-EM2883



MITSUI SEIKI KOGYO CO.,LTD.



Ultimate precision is “ Identity of MITSUI SEIKI”

In search of Ultimate Precision

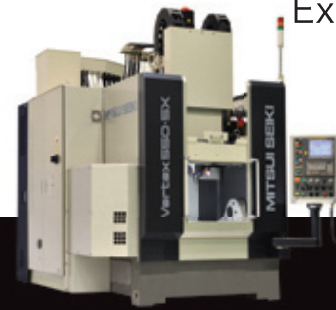


Mitsui Seiki production history begins with the manufacturing of precision gauge blocks and micrometers. Today' s machine tools manufactured at our world class precision facility are recognized world wide as the “Mother Machines” for the most stringent accuracies requirements in manufactured parts.

Today' s CNC technologies with sophisticated software and servo systems provide easy corrections for accuracy compensation. However, geometrical accuracy (volumetric accuracy) cannot be corrected by servo and software compensation. Geometrical features such as straightness of travel, squareness, flatness that produce accurate volumetric positions in the machining envelop are only achieved by hand scraping and fitting of the machine tool components.

Accuracy requirements for Jig Borers, Jig grinders, thread grinders and high precision machining centers can only be realized when the machines are hand scraped and finished assembled by this technique.

Expertise of making ultimate precision machine tools from a long history



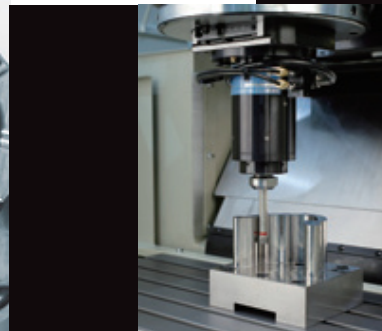
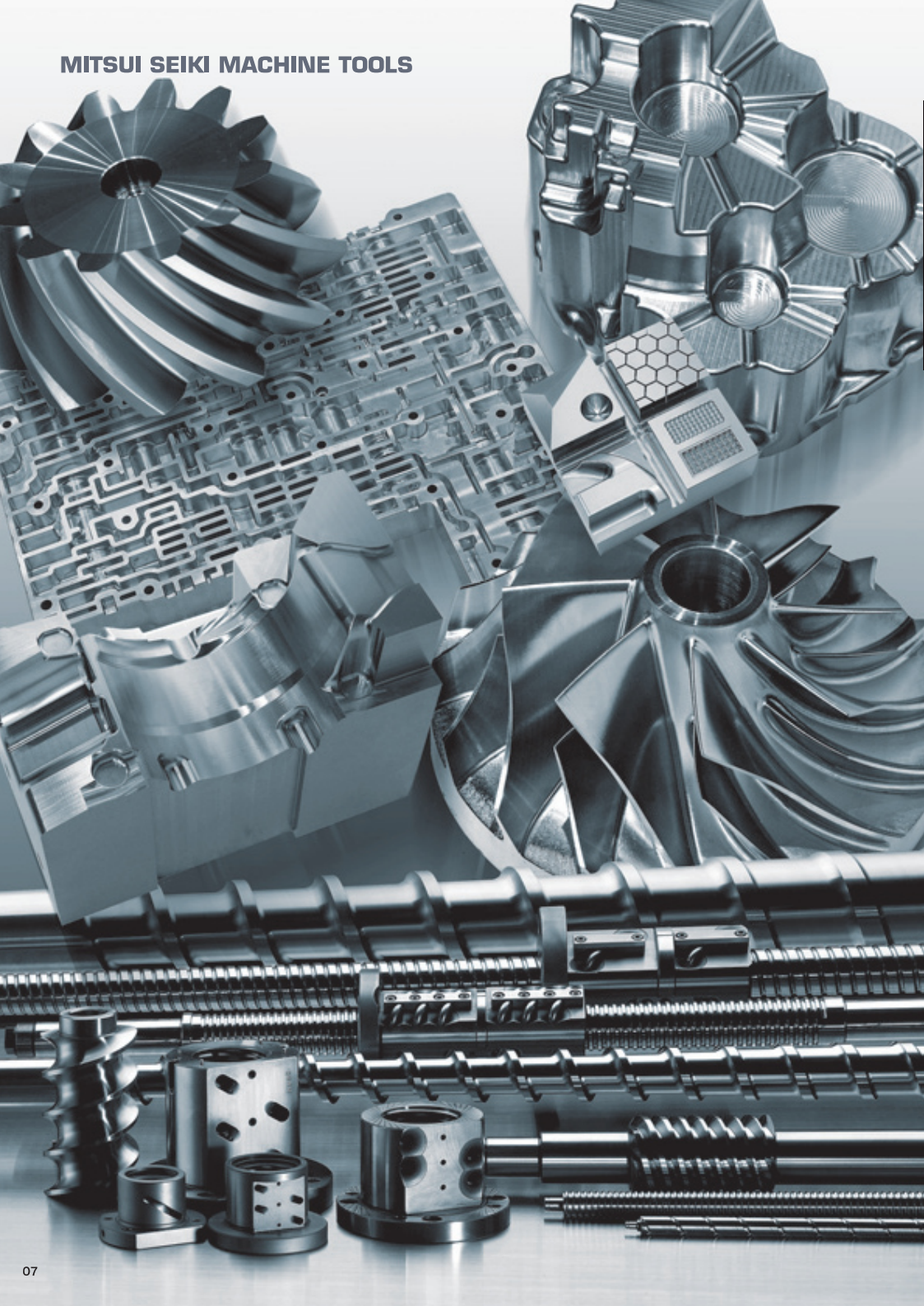
The "Mother Machines" are not mass produced. These machine tools are scraped, fit, assembled and measured with this process repeated until the final precision tolerance required is achieved. There is no compromising when removing the last micron of inaccuracy from a machine tool. All critical assemblies and components such as spindles, ball screws, tables, etc. that make these "Mother Machines" are produced in our factory. This assures the required quality, accuracy and process controls needed to produce this caliber of machine tools.

The technical ability to measure accuracies smaller than $1\mu\text{m}$ provides Mitsui Seiki with the capability to produce ultra precision machine tools.



When measuring accuracies of $1/1000\text{mm}$, the measuring equipment used must be 10 times more accurate (capable of $1/10000\text{mm}$ measurement) to assure reliable consistent results. But when using high accuracy measurement equipment, it must also be in perfect environmental conditions. Also, the procedures when using this equipment requires consistence measurement procedures and the equipment must be traceable to an international bureau of standards for compliance for usage in high precision measurement environments. Mitsui Seiki's history is in the development of manufacturing measurement equipment and the development of industrial standards for high precision industries. This is why Mitsui Seiki is a world leader in the manufacture of precision machine tools.





Product line up

Horizontal Machining Center	
HU50A	9~10p
HU63EX	9~10p
HPX63	9~10p
HU80A	9~10p
HU100 series	9~10p
HS8A	9~10p
H5D	9~10p
H6D	9~10p
FH550R	11~12p
HW550A	11~12p
FH630R	11~12p
HW630A	11~12p

5-axes Control Horizontal Machining Center(Table on Table)	
HU40-T	11~12p
HU50-T	11~12p
HU63-T	11~12p
HU100-T	11~12p

5-axes Control Horizontal Machining Center(Trunnion)	
HU50A-5X	13~14p
HU63A-5X	13~14p
HU80A-5X	13~14p
HU100-5X	13~14p
HU100-5XL	13~14p
HU100-5XLL	13~14p

5-axes Control Horizontal Machining Center(Spindle Tilt)	
HU100-TS	13~14p

Vertical Machining Center(3-axes,5-axes)	
Vertex550	15~16p
Vertex550-5X	15~16p
Vertex750	15~16p
Vertex750-5X	15~16p
VU50A	15~16p
VU65A	15~16p

Linear Motor Drive High-speed Precision Center(3-axes,5-axe)	
VL30	15~16p
VL30-5X	15~16p
VL50	15~16p

Jig Borer	
J6CN-II	17~18p
J7CN-II	17~18p
Jidic J1220	17~18p
Jidic J1230	17~18p

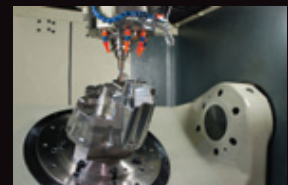
Jig Grinder	
J300G	17~18p
J3GEN	17~18p
J4GDN	17~18p
J6GCN	17~18p
J7GAN	17~18p

External Thread Grinder (GSE-A,GSE-B series)	
GSE30A	17~18p
GSE50A	17~18p
GSE100A	17~18p
GSE200A	17~18p
GSE320A	17~18p
GSE500A	17~18p
GSE100B	19~20p
GSE200B	19~20p
GSE320B	19~20p

Internal Thread Grinder	
GSN180iS	19~20p

Vertical Thread Grinder	
VGE20A	19~20p
VGE60A	19~20p

Screw Heavy Grinder(GSE-H series,GSC100H)	
GSE100H	19~20p
GSE200H	19~20p
GSC100H	19~20p



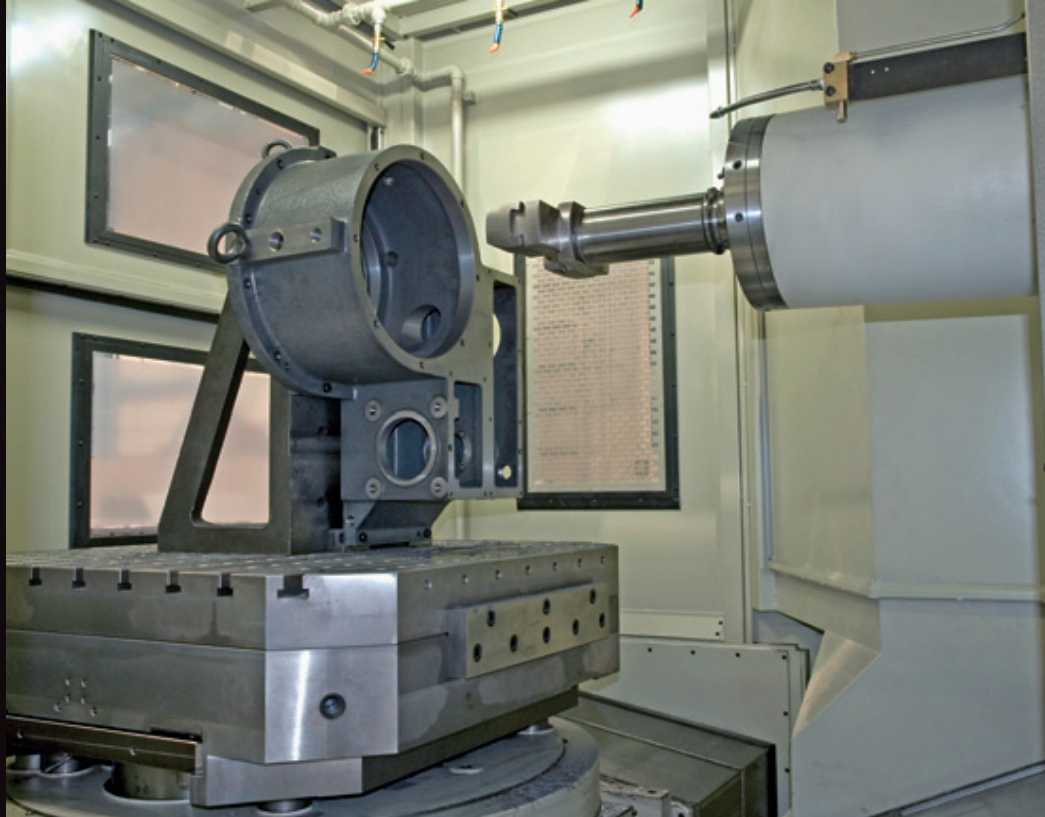
Horizontal Machining Center



HU50A



HU63EX



HPX63



HU80A



HU100 series

MITSUI SEIKI MACHINE TOOLS

Horizontal Machining Center



H5D



HS8A

	Item	HU50A	HU63EX	HPX63	HU80A
Stroke	X-axis mm	720	900	1,000	1,200
	Y-axis mm	700	800	800	950
	Z-axis mm	650	800	900	900
Table	Palette size mm	500×500	630×630	630×630	800×800
	Maximum loading weight kg	800	1,200	1,200	1,600
Spindle	Taper	ISO 7/24 Taper No.40			
	Spindle rotation speed min ⁻¹	50~8,000 (OP:12,000/20,000)			
Rapid feed rate	m/min	36	24	32	24
APC		2APC Front side turn type			2APC Front side boxer type
ATC Number of tools to be stored		60			
Machine weight	kg	About 12,000	About 17,000	About 17,000	About 20,000
OP : Option					

OP : Option

	Item	(STANDARD)	HU100	(OPTION)	HS8A	H5D	H6D
Stroke	X-axis mm	1,300	1,600 / 2,000	1,800 (OP:2,400/3,000)	850	1,300	1,300
	Y-axis mm	1,000	1,200 / 1,500	1,500 (OP:1,800)	700	900	900
	Z-axis mm	1,000	1,200 / 1,400	1,200 (OP:1,500)	750	900	900
Table	Palette size mm	1,000×1,000	1,200×1,200	1,500×1,500	630×630	800×800	800×800
	Maximum loading weight kg	3,000	5,000 / 8,000	8,000	1,200	1,600	1,600
Spindle	Taper	ISO 7/24 Taper No.50					
	Spindle rotation speed min ⁻¹	15~4,500	6,000(26kW) / 6,000(37kW) 12,000(30kW)	15~3,150 (OP:6,000)	60~6,000 (OP:80~8,000)		
Rapid feed rate	m/min	20	15 (differs by stroke)	X:7 YZ:10	5		
APC		2APC Front Boxer Type	4/6/8/10	OP:2/4/6	OP:2/4/6/8/10		
ATC Number of tools to be stored		60	90/120/180/240/360	60 (OP:90/120/180/240/360)			
Machine weight	kg	About 30,000	differs by spec.	About 35,000	About 18,000	About 21,000	About 21,000

OP : Option

Horizontal Machining Center



FH550R



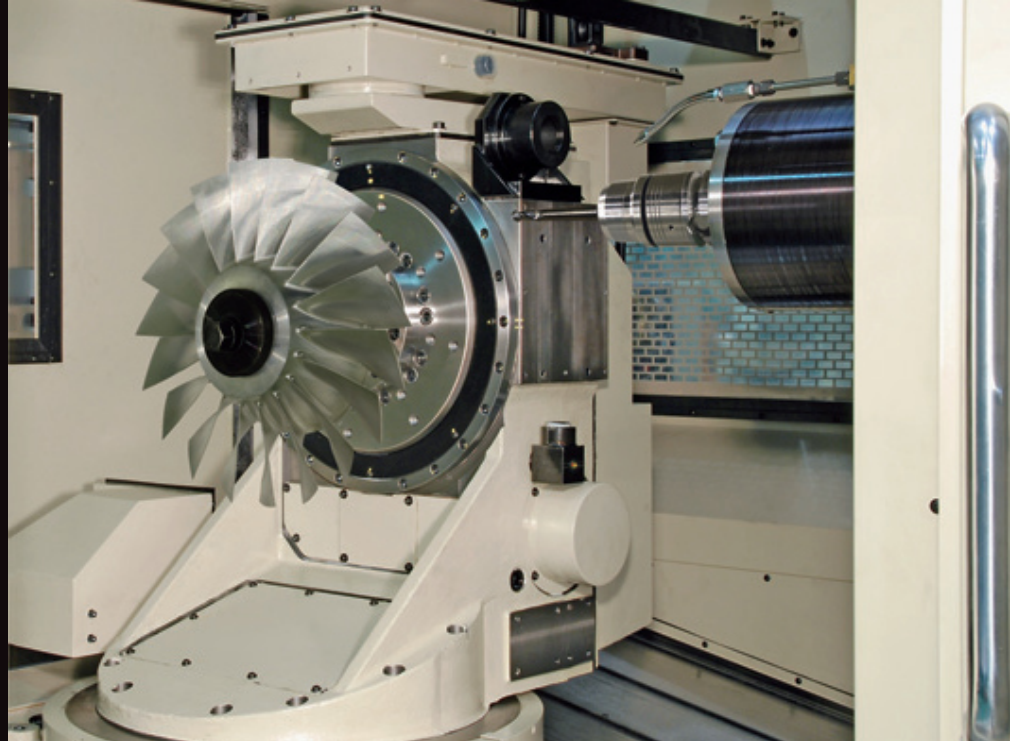
FH630R



HW550A



HW630A



MITSUI SEIKI MACHINE TOOLS

5-axes Control Horizontal Machining Center(Table on Table)



HU40-T



HU50-T



HU100-T



HU63-T

Item			FH550R/HW550A	FH630R/HW630A
Stroke	X-axis	mm	750	1,000
	Y-axis	mm	FH:800 / HW:850	
	Z-axis	mm	850	
Table	Palette size	mm	550×550	630×630
	Maximum loading weight	kg	800	1,000
Spindle	Taper		ISO 7/24 Taper NO.50 (OP:HSK-A100)	ISO 7/24 Taper NO.50 (OP:HSK-A100)
	Spindle rotation speed	min ⁻¹	50~6,000 (OP:15,000)	50~6,000 (OP:15,000)
Rapid feed rate		m/min	48	48
APC	2APC Front side turn type			
ATC Number of tools to be stored	FH:40 / HW:60			
Machine weight	kg		About 18,000	About 19,000

OP : Option

Item		HU40-T	HU50-T	HU63-T	HU100-T
Stroke	X-axis	mm	610	770	900
	Y-axis	mm	560	700	800
	Z-axis	mm	560	650	800
	B-axis	°	-90~-+180 (Indexing of 0.001°)		
	C-axis	°	360 (Indexing of 0.001°)		
Table	Palette size	mm	φ360		φ600
	Maximum loading weight	kg	100		600
Spindle	Taper	ISO 7/24 Taper NO.40		ISO 7/24 Taper NO.50	ISO 7/24 Taper NO.50
	Spindle rotation speed	min ⁻¹	80~8,000 (OP:12,000/20,000)	50~12,000 (OP:20,000 (40T))	15~6,000 (OP:12,000/20,000)
Rapid feed rate	X,Y,Z-axis	m/min	36	24	20
	B-axis	min ⁻¹	30	15	10
	A-axis	min ⁻¹	30	15	10
APC			4	Not available	
ATC Number of tools to be stored			60	60	
Machine weight	kg	About 13,000	About 15,000	About 18,000	About 30,000

OP : Option

5-axes Control Horizontal Machining Center(Trunnion)

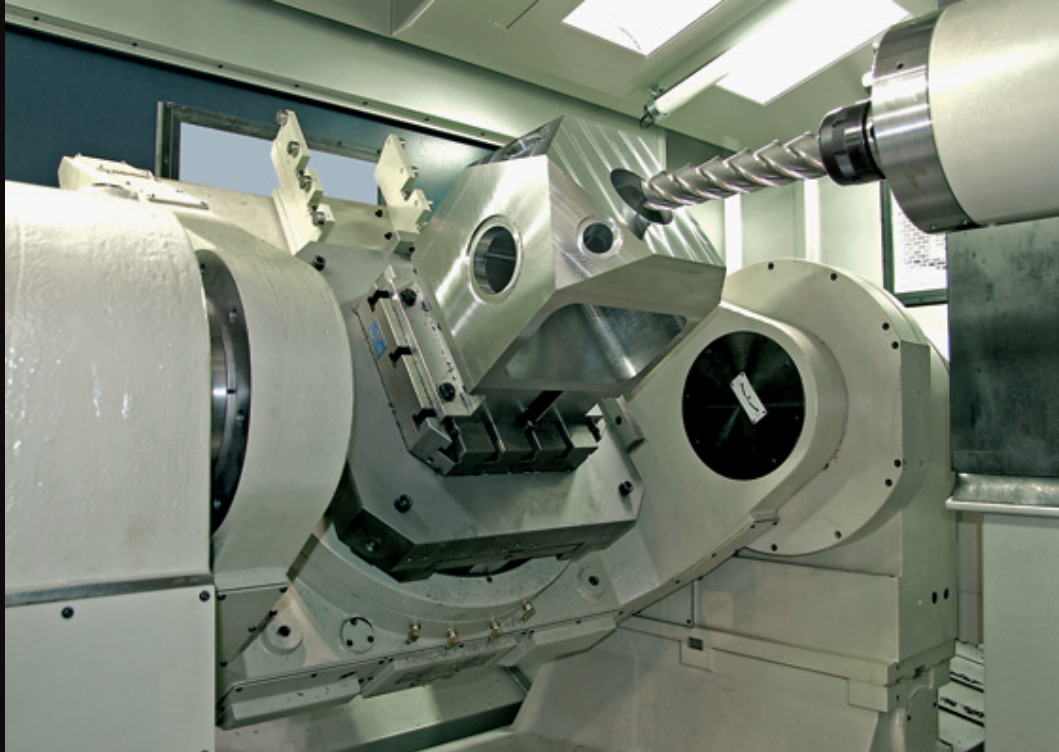
HU50A-5X



HU63A-5X



HU80A-5X



MITSUI SEIKI MACHINE TOOLS

Vertical Machining Center

VU50A



VU65A



5-axes Control Horizontal Machining Center(Spindle Tilt)

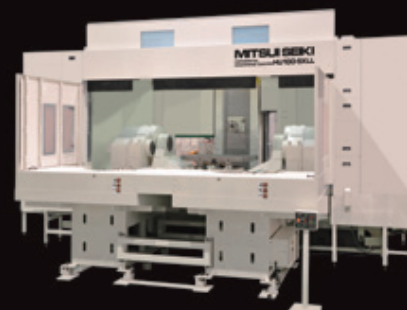
HU100-5X



HU100-5XL



HU100-5XLL



HU100-TS



	Item		HU50A-5X	HU63A-5X	HU80A-5X	HU100-5X	HU100-5XL	HU100-5XLL
Stroke	X-axis	mm	720	900	1,200	1,300	2,000	2,500
	Y-axis	mm	850	900	1,000	1,200	1,500	1,750
	Z-axis	mm	850	900	1,050	1,200	1,400	1,400
	B-axis	°	360(Indexing of 0.001°)					
	C-axis	°	+5~-95(Indexing of 0.001°)(OP:+20~-110)					
Table	Palette size	mm	500×500	630×630	800×800	1,000×1,000		1,700×1,000
	Maximum loading weight	kg	650	800	1,200	2,000	3,000	
Spindle	Taper	ISO 7/24 Taper NO.50						
	Spindle rotation speed	min ⁻¹	50~12,000 (OP:20,000)	15~6,000 (OP:12,000/20,000)		15~4,500 (OP:12,000)		4,500
	X,Y,Z-axis	m/min	X:24 YZ:36	X:12 YZ:24		XY:12		X:10 YZ:12
Rapid feed rate	B-axis	min ⁻¹	12	10		6	4	
	A-axis	min ⁻¹	6			4	2	
APC			2APC Front side shuttle type (OP:6/10)	2APC Front side boxer type (OP:6/8/10)		OP:2/4/6/8/10		Option
ATC Number of tools to be stored		60 (OP:90/120/180/240/360)						
Machine weight	kg	About18,000		About26,000	About28,000	About35,000	About40,000	About43,000

OP : Option

	Item	HU100-TS
Stroke	X-axis mm	1,300
	Y-axis mm	1,500
	Z-axis mm	1,400
	B-axis °	360
	C-axis °	-30~+120
Table	Palette size mm	1,000×1,000
	Maximum loading weight kg	3,000
	Taper	ISO 7/24 Taper N0.50
Spindle	Spindle rotation speed min ⁻¹	10,000
	X,Y,Z-axis m/min	X:15 YZ:12
	B-axis min ⁻¹	10
Rapid feed rate	B-axis min ⁻¹	6
	A-axis min ⁻¹	
APC		Option
ATC Number of tools to be stored		60
Machine weight	kg	About31,000

OP : Option

	Item	VU50A	VU65A
Stroke	X-axis mm	700	1,280
	Y-axis mm	500	650
	Z-axis mm	450	610
	Table size mm	1,100×580	1,500×600
	Maximum loading weight kg	600	1,500
Spindle	Taper	ISO 7/24 Taper N0.40	ISO 7/24 Taper N0.50
	Spindle rotation speed min ⁻¹	120~12,000 (OP:20,000)	15~6,000 (OP:12,000/20,000)
	Spindle rotation speed min ⁻¹		
Rapid feed rate	m/min	XY:36 Z:24	24
ATC Number of tools to be stored		20 (OP:30/40/60)	
Machine weight	kg	About9,400	About13,000

OP : Option

5-axes Control Vertical Machining Center

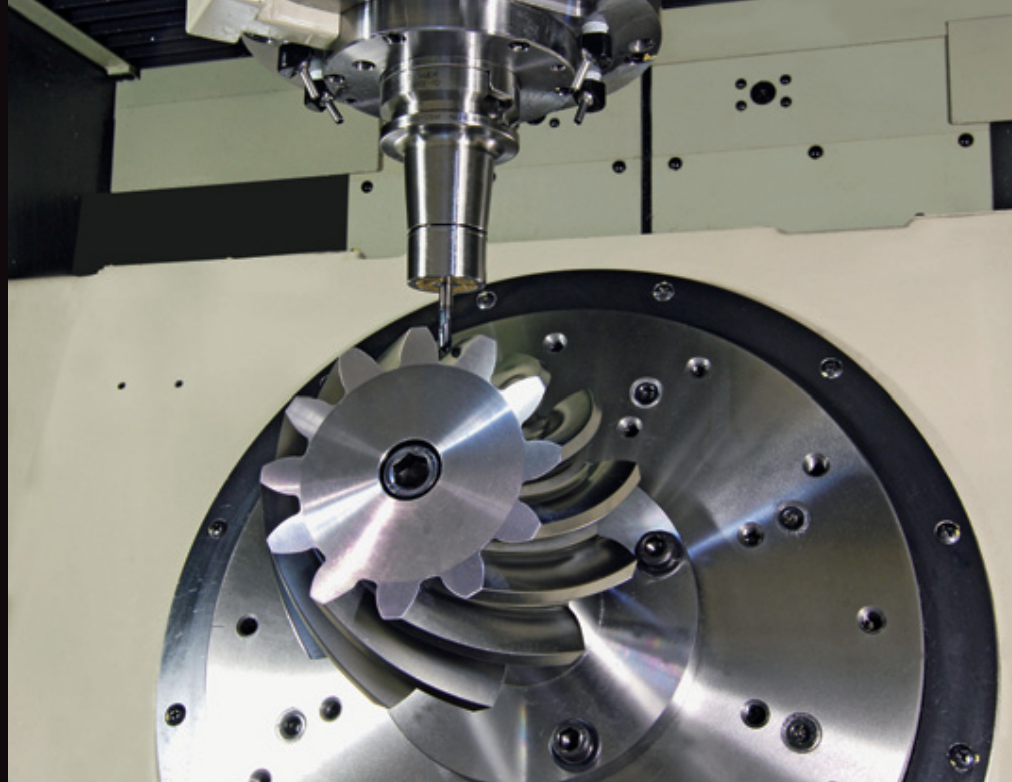


Vertex550

Vertical Machining Center



Vertex750-5X



Vertex550-5X

MITSUI SEIKI MACHINE TOOLS

Linear Motor Drive High-speed Precision Center



VL30



VL30-5X



VL50

	Item	Vertex550	Vertex550-5X	Vertex750	Vertex750-5X
Stroke	X-axis mm	550		750	
	Y-axis mm	600		800	
	Z-axis mm	500		700	
	B-axis °	—	+15~ -105(Indexing of 0.001°)	—	+15~ -105(Indexing of 0.001°)
	C-axis °	—	360(Indexing of 0.001°)	—	360(Indexing of 0.001°)
Table	Table size mm	700×600	φ400	900×800	φ500
	Maximum loading weight kg	800	350(at A-axis 0°)	1,000	500
	Taper	ISO 7/24 Taper NO.40			
Spindle	Spindle rotation speed min ⁻¹	50~25,000 or 50~15,000			
	Rapid feed rate m/min	XYZ:48	XYZ:48 A:30min ⁻¹ C:50min ⁻¹	XYZ:48	XYZ:48 A:20min ⁻¹ C:40min ⁻¹
ATC Number of tools to be stored		24 (OP:40/60)	40	24 (OP:40/60)	40
Machine weight kg		About 8,800	About 9,500	About 11,500	About 12,500

OP : Option

	Item	VL30	VL30-5X	VL50
Stroke	X-axis mm	200		400
	Y-axis mm	300		300
	Z-axis mm	200		200
	B-axis °	—	-40~ +110(Indexing of 0.001°)	—
	C-axis °	—	360(Indexing of 0.001°)	—
Table	Table size mm	300×400	φ180	500×400
	Maximum loading weight kg	200	20	400
	Taper	type I: HSK-E25 / type II: HSK-E32 / type III: HSK-E40		
Spindle	Spindle rotation speed min ⁻¹	type I: 500~50,000 / type II: 300~30,000 / type III: 250~25,000		
	Rapid feed rate m/min	40	XYZ:40 A:100min ⁻¹ C:150min ⁻¹	40
ATC Number of tools to be stored		12		16
Machine weight kg		About 5,800		About 6,500

* The spindle can be selected the following 3 types.

Jig Grinder



J300G



J46DN



J66CN



J76AN



J1230

Item			J300G	J36EN	J46DN	J66CN	J76AN
Stroke	X-axis	mm	500		610	1,020	1,530
	Y-axis	mm	300		410	760	1,020
Table	Table size	mm	700×350		790×600	1,280×960	1,830×1,200
	Maximum loading weight	kg	300		750	1,200	2,000
Quill	Chopping stroke	mm	95		135		
	Number of chopping cycles	cycle/min*	200	400	200		
Machine weight		kg	About 3,200	About 3,300	About 4,300	About 9,000	About 14,000

*at 25mm stroke

MITSUI SEIKI MACHINE TOOLS

Jig Borer



J6CN-II



J7CN-II

Item			J6CN-II	J7CN-II
Stroke	X-axis	mm	1,020	1,530
	Y-axis	mm	760	1,020
	Z-axis	mm	300	
Table	Table size	mm	1,280×960	1,830×1,200
	Maximum loading weight	kg	1,200	2,000
Spindle	Taper		ISO 7/24 Taper NO.45 (OP: ISO 7/24 Taper NO.50)	
	Spindle rotation speed	min ⁻¹	40~3,200	
Machine weight		kg	About 9,000	About 14,000

OP : Option

Item			J1220	J1230
Stroke	X-axis	mm	2,000	3,000
	Y-axis	mm	1,250	
	Z-axis	mm	500	
Table	Table size	mm	2,000×1,250	3,000×1,250
	Maximum loading weight	kg	3,000	5,000
Spindle	Spindle rotation speed	min ⁻¹	50~10,000 (OP: 25,000)	
	ATC Number of tools to be stored		40 (OP: 60/90/120)	
Machine weight		kg	About 30,000	About 35,000

OP : Option

External Thread Grinder (GSE-A,GSE-B series)

GSE30A



GSE50A



GSE100A



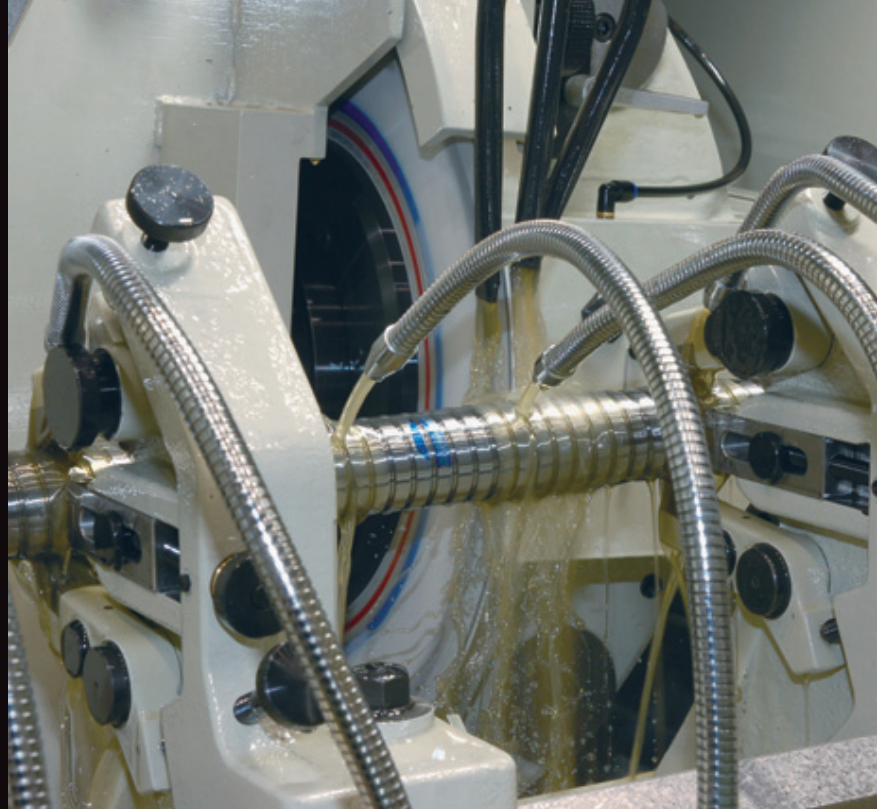
GSE200A



GSE320A



GSE500A



MITSUI SEIKI MACHINE TOOLS

External Thread Grinder (GSE-H,GSC-H series)

GSE200H



GSC100H



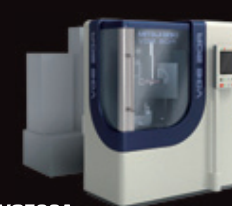
Internal Thread Grinder

GSN180is



Vertical Thread Grinder

VGE20A



VGE60A



GSE200B



GSE320B



Item		GSE30A	GSE50A	GSE100A	GSE200A	GSE320A	GSE500A	GSE100B	GSE200B	GSE320B
Capacity/ capacity	Swing over table	mm	φ270		φ480			φ480		
	Distance between centre	mm	450	750	1,250	2,250	3,650	1,250	2,250	3,650
	Maximum screw length can be grind	mm	300	500	1,000	2,000	3,200	1,000	2,000	3,200
Wheel spindle	Wheel size	mm	φ350×10~32×φ152.4				φ510×10~50×φ228.6			
	Max. grinding wheel surface speed	m/min	2,700							
	Wheel spindle motor power	kW	2.2	3.7		7.5		11		
Table stroke		mm	360	650	1,150	2,150	3,300	5,100	1,150	2,150
Work spindle	Penetrating hole diameter	mm	φ35	φ76 (OP: φ103)			φ172		φ76 (OP: φ103)	
	Spindle rotation speed	min ⁻¹	100			80		100		80
Machine weight		kg	About 4,500	About 9,500	About 11,000	About 13,000	About 18,500	About 20,000	About 11,000	About 13,000

OP : Option

Item		GSE100H	GSE200H	GSC100H
Capability/capacity	Swing over table	mm	φ480	
	Distance between centre	mm	1,250	2,250
	Maximum screw length can be ground	mm	1,000	2,000
Wheel/spindle	Wheel size	mm	φ510×10~50×φ228.6	
	Max. grinding wheel surface speed	m/min	3,600	
	Wheel spindle motor power	kW	OP:45	
Table stroke	mm	1,440	2,440	1,440
	Penetrating hole diameter	mm	φ76 (OP: φ103)	φ76 (OP: φ103)
Work spindle	Spindle rotation speed	min ⁻¹	100	30
	Machine weight	kg	About 13,000	About 15,000

OP : Option

Item		GSN180is	
Capability/ capacity	Swing over table	mm	φ480
	Minimum swing height	mm	180
Maximum tilt angle		°	±10
Wheel spindle	Standard type	min ⁻¹	15,000~24,000
	High stiffness type	min ⁻¹	8,000~15,000
	High speed type 1	min ⁻¹	24,000~45,000
	High speed type 2	min ⁻¹	45,000~70,000
Table stroke		mm	400
Work spindle		Spindle rotation speed	min ⁻¹ 100
Machine weight		kg	About 7,000

Item		VGE20A/VGE60A	
Capability/ capacity	Swing over table	mm	φ200
	Distance between centre	mm	250 700
		Minimum swing height	mm 200 600
Wheel spindle	Wheel size	mm	φ255
	Min. sliding table surface spec.	mm	3,600
	Wheel spindle motor power	kW	7
	Work spindle	Penetrating hole diameter	mm
		Spindle rotation speed	min ⁻¹ 200
Machine weight		kg	About 5,500 About 6,000



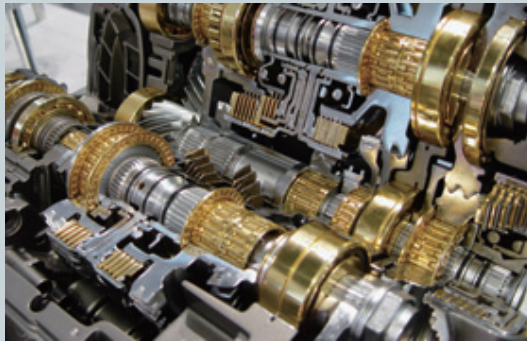
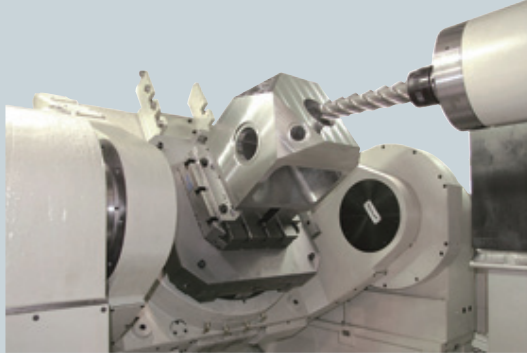
Mitsui Seiki "Mother Machines" are produced in our main factory in Kawajima-machi, central Saitama. This factory is designed to maintain thermo stability and vibration stability needed to achieve these exceptional tolerance requirements. Temperature control is import because one meter of iron expands and contracts 0.01 mm with each 1°C of temperature difference. Accomplishing 1 μ m accuracy in a machine tool is impossible unless the assembly environment is tightly controlled. Mitsui Seiki maintains the tightest temperature controlled environment in the industry for machine tool assembly.



Vibration control is also very important. Induced frequencies effect accuracy measurements on the assembly floor. Our factory has over 1700 pylons every three meters, supporting 1200 mm thick concrete floors and the pylons extent to bedrock to assure solid foundations for building "Mother Machines". All cranes are isolated from the machine assembly floor to isolate the vibration they may create.

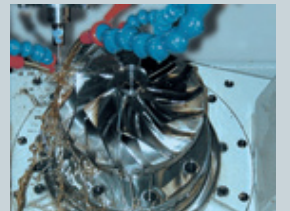


Today's leading edge technologies are increasing the demand for higher accuracy machine tools. **MITSUI SEIKI MACHINE TOOLS**

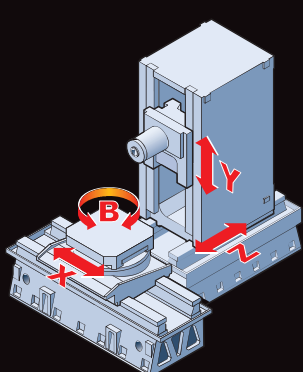


Essential industries such as aerospace, auto, transport machine, construction machinery, energy, electrical machine, semiconductor, engineering equipment, precision equipment, machine tool, mould, tool, medical equipment, industrial machinery, bio, electrical power generation, etc are directly and indirectly supported by these styles of machine tools.

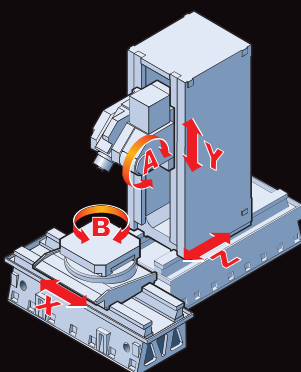
Mitsui Seiki maintains the highest reputation in supporting these industries with newly developed technologies, ultra precision machine tool products and support services that are meeting the most demanding requirements in industry.



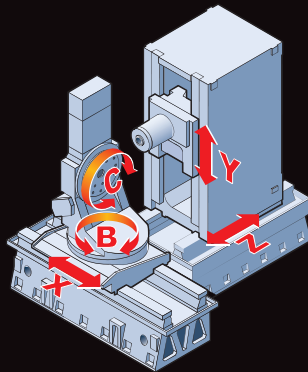
Name of each axis



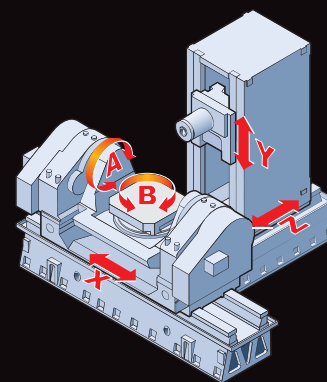
Horizontal Machining Center
(4-axes)



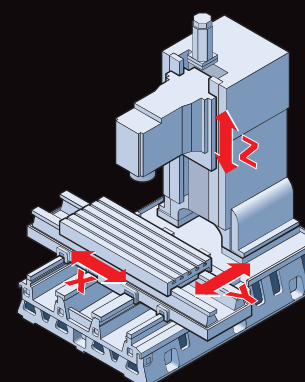
5-axes Control Horizontal Machining Center
(Spindle Tilt)



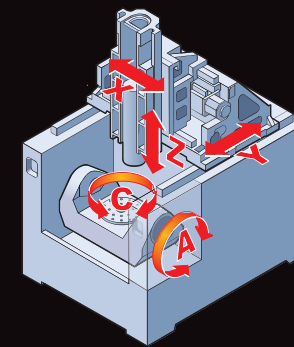
5-axes Control Horizontal Machining Center
(Table on Table)



5-axes Control Horizontal Machining Center
(Trunnion)



Vertical Machining Center(3-axes)



Vertical Machining Center(5-axes)

Machining Center Main Specification Chart

		Stroke						Table(Palette) Size mm	Maximum Workpiece (diameter X height) mm	Maximum Loading Weight kg
		X-axis	Y-axis	Z-axis	B-axis	A-axis	C-axis			
		mm	mm	mm	°	°	°			
Horizontal Machining Center	HU50A	720	700	650	360	-	-	500×500	φ800×1000	800
	HU63EX	900	800	800	360	-	-	630×630	φ950×1050	1200
	HPX63	1000	800	900	360	-	-	630×630	φ1050×1050	1200
	HU80A	1200	950	900	360	-	-	800×800	φ1200×1200	1600
	HU100	1300	1000	1000	360	-	-	1000×1000	φ1500×1400	3000
	HS8A	1800	1500	1200	360	-	-	1500×1500	φ2000×1800	8000
	H5D	850	700	750	360	-	-	630×630	φ950×1030	1200
	H6D	1300	900	900	360	-	-	800×800	φ1420×1080	1600
	HW550R	750	850	850	360	-	-	550×550	φ850×950	800
	HW630R	1000	850	850	360	-	-	630×630	φ1000×950	1000
	FH550R	750	800	850	360	-	-	550×550	φ850×950	800
5-Axes Control Horizontal Machining Center	FH630R	1000	800	850	360	-	-	630×630	φ1000×950	1000
	HU40-T	610	560	560	360	-	-90~+180	φ360	φ500×350	100
	HU50-T	770	700	650	360	-	-90~+180	φ360	φ500×350	100
	HU63-T	900	800	800	360	-	-90~+180	φ360	φ800×618	300
	HU100-T	1300	1000	1000	360	-	-90~+180	φ600	φ1200×700	600
	HU50A-5X	720	850	850	360	+5~-95	-	500×500	φ750×700	650
	HU63A-5X	900	900	900	360	+5~-95	-	630×630	φ950×900	800
	HU80A-5X	1200	1000	1050	360	+5~-95	-	800×800	φ1200×1000	1200
	HU100-5X	1300	1200	1200	360	+5~-95	-	1000×1000	φ1500×1200	2000
	HU100-5XLL	2000	1500	1400	360	+5~-95	-	1000×1000	φ2000×1200	2000
	HU100-5XLL	2500	1750	1400	360	+5~-95	-	1700×1000	φ2500×1200	3000
Vertical Machining Center	HU100-TS	1300	1500	1400	360	-30~+120	-	1000×1000	φ1250×1900	3000
	VU50A	700	500	450	-	-	-	1100×580	-	600
	VU65A	1280	650	610	-	-	-	1500×600	-	1500
	Vertex550	550	600	500	-	-	-	700×600	-	800
	Vertex750	750	800	700	-	-	-	900×800	-	1000
	VL30	200	300	200	-	-	-	300×400	-	200
5-Axes Control Vertical Machining	VL50	400	300	200	-	-	-	500×400	-	400
	Vertex550-5X	550	600	500	-	+15~-105	360	φ400	φ750×525	350
	Vertex750-5X	750	800	700	-	+15~-105	360	φ500	φ950×650	500
	VL30-5X	200	300	200	-	+40~-110	360	φ180	-	20

Machining Center Main Spindle Specification Chart

Machine	Item Taper Spindle RPM	Built-in						Built-in						Gear drive			
		HSK			BT			BT			BT			BT			
		E40	E32	E25	#40	#50	#50	#50	#50	#50	#50	#50	#50	#50	#50	#50	#50
		25000	30000	50000	8000	12000	15000	20000	25000	6000	10000	12000	15000	2250	3150	4500	6000
HU40-T		-	-	-	15/11 292/117	15/11 292/117	-	-	-	-	-	-	-	-	-	-	-
HU50A		-	-	-	15/11 292/117	15/11 292/117	-	-	-	-	-	-	-	-	-	-	-
HU50A-5X HU50-T		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HPX63		-	-	-	-	-	-	-	18.5/15 28.6/14	-	-	-	-	30/25 262/191	-	-	-
HU63EX, HU63A-5X, HU63-T HU80A, HU80A-5X		-	-	-	-	-	-	-	18.5/15 28.6/14	-	-	-	-	-	-	-	-
HU100 series HU100-5X, HU100-5XL, HU100-5XLL		-	-	-	-	-	-	-	18.5/15 28.6/14	-	-	-	-	-	-	-	-
HU100-TS		-	-	-	-	-	-	-	18.5/15 28.6/14	-	-	-	-	-	-	-	-
HS8A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H5D H6D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FH550R, FH630R HW550A, HW630A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VL30 VL30-5X VL50		37/15 353/143	41/15 131/672	55/15 131/672	-	-	-	-	-	-	-	-	-	-	-	-	-
Vertex550, Vertex550-5X Vertex750, Vertex750-5X		-	-	-	-	-	-	-	7.5/5.5 98/44	-	-	-	-	-	-	-	-
VU50A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VU65A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Upper : Power(kw 30min/continuous)
Lower : Torque(Nm 30min/continuous) 1min/continuous * 25%ED/continuous
Yellow=Standard Other=Option "-" =Not available