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IT'S VERY WELL
MADE IN TAIWAN
CE ISO 9001
All specification are subject to change without prior notice.



Maxmill Machinery Co., Ltd.

Quality Machines Do Make a Difference. Maxmill Help You Stay Competitive.

- Sing Lung Trading Co., Ltd., was established in 1960 as a cooperation with the Japanese Mitutoyo and Sumitomo as their exclusive representative in Taiwan.
- 1988, the company Lien Sheng Electrical Co. Ltd was established. They specialized in the Manufacture of EDM and Wire EDM cutting machinery.
- 1996, the company Maxmill Machinery Co, Ltd. Was established. Through research, designing, building and final testing, Maxmill produced a complete line of quality Vertical Machining Centers based on the many years of technical experience garnered from their team of dedicated employee's.
- 2003, saw the introduction to the Maxmill line of machining centers, a Bridge-Type machining center.

CREATING THROUGH ADVANCED THINKING

Established in 1996, Maxmill has leveraged its technical experience, gained since 1960, to design and manufacture the best machine tool possible. Since it's establishment, the philosophy of Maxmill has been to provide the best machine possible for achieving increased productivity, accuracy and reliability. Each and every one of Maxmill machine tools is highly dependable, being manufactured in the tradition that is Maxmill quality and Maxmill reliability. On top of Maxmill's superior design and manufacturing capabilities, Maxmill implements rigorous quality control protocols in each or the manufacturing processes to ensure that only the best machine tool is delivered to our customers. This is why Maxmill can fully satisfy each and everyone of their domestic and international customers.

EXCEPTIONAL R&D CAPABILITIES

Maxmill commitment to their customers keeps us constantly focused on researching new technologies to improve our machines performance. Maxmill full staff of exceptional R&D engineers with 20 plus years of experience, utilizing the most advanced design and computer analysis technology, are constantly improving the machines we build. The main reason for Maxmill's quality are the innovations and improvements found in all our machine tools. For us at Maxmill, this is our philosophy, this is the Maxmill tradition.

QUALITY ASSURANCE

Quality is the goal of all maxmill employees. Maxmill employs a rigorous quality assurance protocol through each and every step of the manufacturing process. Utilizing the latest inspection tools (Ball-bar testing, laser instruments) Maxmill ensures the optimum performance and accuracy of their machine tools. As well, Maxmill adheres to the protocols of machine inspection using established international quality assurance programs, such as ISO9001, JIS, DIN, UL, CSA and CE. Through our efforts of quality ensurance, we have gained the loyalty and trust of our customers.

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With **CRONOS**'s powerful capabilities, conquering extremely heavy duty workloads will never be a problem for you.



CRONOS series

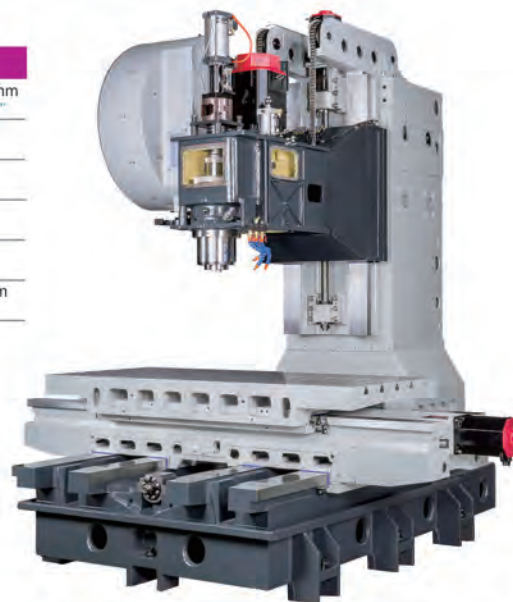
■ **VMC-1490 / 1690**
■ **VMC-1890 / 2090**

Rigid, box-type slideways on 3 axes, high chip removal rate, rugged construction throughout, a massive machining bed and high torque spindle are all present on the **CRONOS** series to make heavy duty machining the easiest ever.



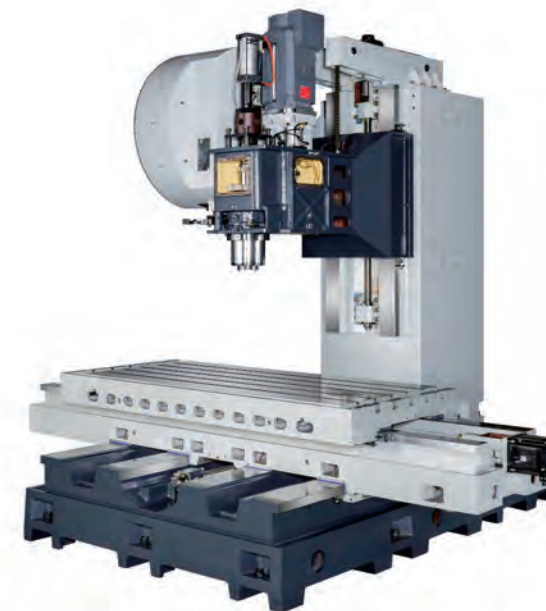
Machine Specifications:

Model	VMC-1490	VMC-1690
X x Y x Z axis	1,400 x 900 x 700 mm 55.2" x 35.5" x 27.5"	1,600 x 900 x 700 mm 63.0" x 35.5" x 27.5"
TRAVEL		
Spindle nose to table	200~900 mm 7.8"~35.5"	200~900 mm 7.8"~35.5"
Spindle center to solid column surface	990 mm 39.0"	990 mm 39.0"
Working area	1,700 x 850 mm 67.0" x 33.5"	1,900 x 850 mm 74.8" x 33.5"
TABLE		
Max. loading	1,600 kg	2,000 kg
T-Slots (No. x Width x Pitch)	5 x 22 mm x 150 mm 5 x 0.9" x 6.0"	5 x 22 mm x 150 mm 5 x 0.9" x 6.0"



OUTSTANDING FEATURES:

- The pyramid machine construction features a perfect structural ratio. The major cast parts are scientifically rib reinforced, ensuring high accuracy for various machining applications. The outstanding machine construction effectively extends service life and features stable thermal effect and added dampening effect.
- All three axes are subjected to a rigorous inspection routine utilizing Ball-bar testing and laser pitch measurement to achieve the highest accuracy possible.
- X, Y, Z axes are rigid box type slideways. The machine is constructed from high quality alloyed cast iron which ensures maximum machine stability, with minimal base distortion and extended lifetime reliability. All axis slide-ways feature low friction turcite coverings for improved accuracy and life.
- Head stock gears are manufactured from Japanese imported CHROME MOLYBDENUM steel, heat treated then precision ground to class 0 tolerances (JIS standards.)



VMC-1890 / 2090

Machine Specifications:

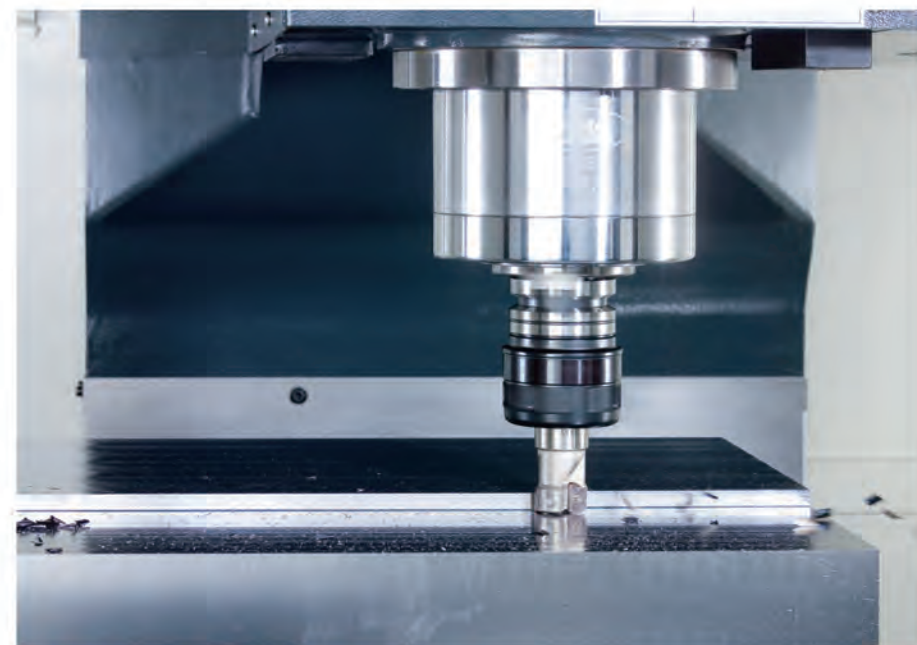
Model	VMC-1890	VMC-2090
X x Y x Z axis	1,800 x 900 x 700 mm 70.9" x 35.5" x 27.6"	2,000 x 900 x 700 mm 78.8" x 35.5" x 27.6"
TRAVEL		
Spindle nose to table	250~950 mm 9.9"~37.4"	250~950 mm 9.9"~37.4"
Spindle center to solid column surface	990 mm 39.0"	990 mm 39.0"
Working area	2,100 x 970 mm 82.7" x 38.2"	2,300 x 970 mm 90.6" x 38.2"
TABLE		
Max. loading	2,500 kg	2,800 kg
T-Slots (No. x Width x Pitch)	5 x 22 mm x 150 mm 5 x 0.9" x 6.0"	5 x 22 mm x 150 mm 5 x 0.9" x 6.0"



Gear Accuracy Meets JIS Class 0 Standards.

The speed gears in spindle stock are manufactured from Japan-imported Chromolybedenum alloy steel, carburized and precision ground to class 0 of JIS standards.

Producing the next Generation of Machine tool providing exceptional quality, extra value and superior accuracy. The **MASTARR** series, using a combination of high speed spindle and precise linear guide-way is defined by its superior efficiency and accuracy.



MASTARR series

- Linear guide-ways are expertly mounted and adjusted to ensure superior feed rates and accuracy with an exceptional service life.
- High speed machining technology with the most advanced servo systems along with optional direct drive spindle technology.
- Superior versatility with superior rigidity is provided at the most competitive of prices.
- Utilizing a box structure for the base and trapezoid structure for the column provides an exceptionally rigid machine frame.

■ TMC-500
QMC-600 / 850 / 1050
HQM-1050 / 1260
HQM-1480 / 1680

QMC-600



Machine Specifications:

Model	QMC-600	
TRAVEL	X x Y x Z axis	610 x 410 x 530 mm 24.1" x 16.2" x 20.8"
	Spindle nose to table	100~630 mm 4.0"~24.8"
	Spindle center to solid column surface	495 mm 19.5"
TABLE	Working area	710 x 410 mm 27.9" x 16.2"
	Max. loading	300 kg
	T-Slots (No. x Width x Pitch)	3 x 18 mm x 125 mm 4 x 0.7" x 5.0"

Model	TMC-500	
TRAVEL	X x Y x Z axis	510 x 400 x 320 mm 20.0" x 15.7" x 12.5"
	Spindle nose to table	150~470 mm 5.9"~18.5"
	Spindle center to solid column surface	474 mm 18.6"
TABLE	Working area	660 x 400 mm 25.9" x 15.7"
	Max. loading	250 kg
	T-Slots (No. x Width x Pitch)	3 x 14 mm x 125 mm 3 x 0.5" x 4.9"

TMC-500



TMC-500



HQM-1260



QMC-850 / 1050

Machine Specifications:

Model	QMC-850	QMC-1050
TRAVEL	X x Y x Z axis	850 x 550 x 560 mm 33.5" x 21.7" x 22.1"
	Spindle nose to table	120~680 mm 4.8"~26.8"
	Spindle center to solid column surface	600 mm 23.7"
TABLE	Working area	950 x 500 mm 37.4" x 19.7"
	Max. loading	500 kg
	T-Slots (No. x Width x Pitch)	4 x 18 mm x 125 mm 4 x 0.7" x 5.0"



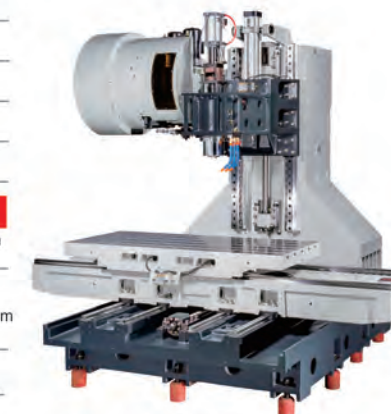
HQM-1260



Machine Specifications:

Model	HQM-1050	HQM-1260
TRAVEL	X x Y x Z axis	1,050 x 550 x 600 mm 41.4" x 21.7" x 23.7"
	Spindle nose to table	120~720 mm 4.8"~28.3"
	Spindle center to solid column surface	600 mm 23.7"
TABLE	Working area	1,150 x 550 mm 45.3" x 21.7"
	Max. loading	880 kg
	T-Slots (No. x Width x Pitch)	4 x 18 mm x 130 mm 4 x 0.7" x 5.2"

HQM-1480 / 1680



Model	HQM-1480	HQM-1680
TRAVEL	X x Y x Z axis	1400 x 800 x 750 mm 55.2" x 31.5" x 29.6"
	Spindle nose to table	75~825(BT40) mm 3.0"~32.5" opt : 40~790(BT50) mm 1.6"~31.1"
	Spindle center to solid column surface	863 mm 34.0"
TABLE	Working area	1550 x 700 mm 61.1" x 27.6"
	Max. loading	1000 kg
	T-Slots (No. x Width x Pitch)	5 x 18 mm x 125 mm 5 x 0.7" x 5.0"



KOLOSSO series

BMC-2217 / 2220
BMC-3217 / 3220
BMC-4217 / 4220



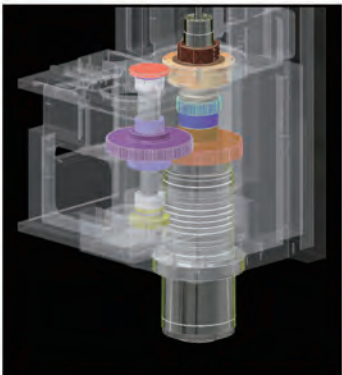
Oversized Ball Screws

The X and Y axes are transmitted through Ø 63 mm oversized ball screws to achieve the highest transmission rigidity.



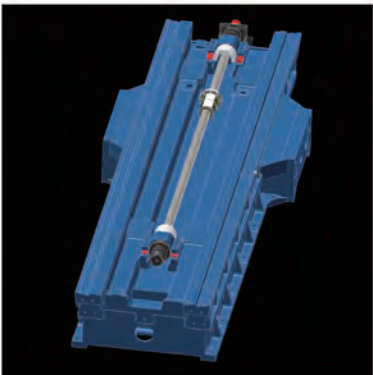
Operation Box

The ergonomic design of the operation box provides added convenience of operation.



Powerful Gear Head

The spindle head is driven by a powerful gearbox with 30 mm thick gear (competitor's gear thickness is 20-25 mm) that aids heavy cutting capability.



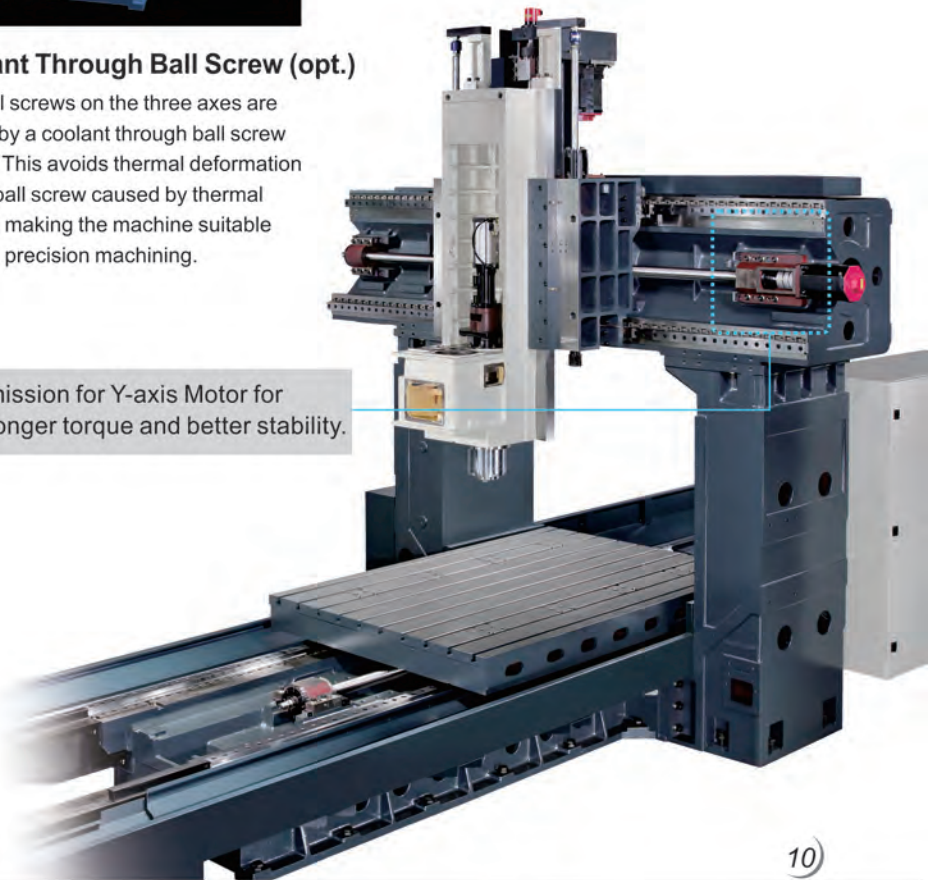
Coolant Through Ball Screw (opt.)

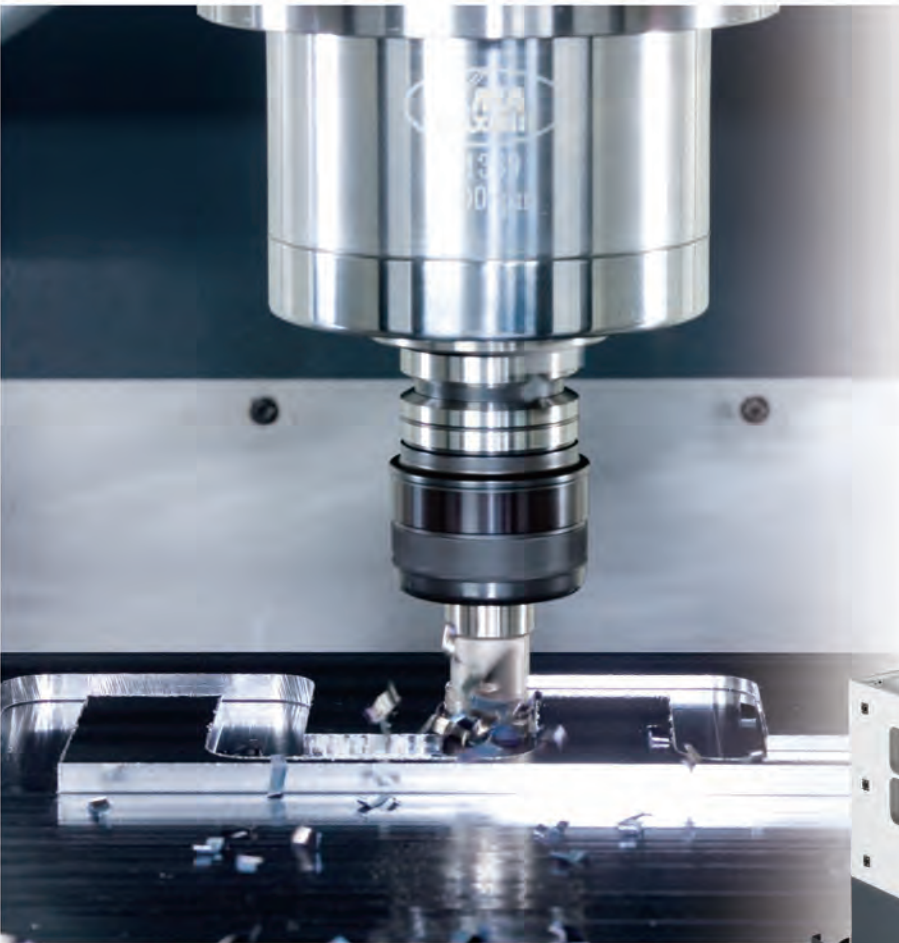
The ball screws on the three axes are cooled by a coolant through ball screw device. This avoids thermal deformation on the ball screw caused by thermal growth, making the machine suitable for high precision machining.

Machine Specifications:

Model		BMC-2217	BMC-2220	BMC-3217
TRAVEL	X x Y x Z axis	2,200 x 2,050 x 850 (1,050) mm 86.6" x 80.7" x 33.5" (41.3")	2,200 x 2,350 x 850 (1,050) mm 86.6" x 92.5" x 33.5" (41.3")	3,200 x 2,050 x 850 (1,050) mm 126.0" x 80.7" x 33.5" (41.3")
	Spindle nose to table	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")
	Spindle center to solid column surface	550 mm 21.7"	550 mm 21.7"	550 mm 21.7"
	Working area	2,200 x 1,500 mm 86.6" x 59.1"	2,200 x 1,800 mm 86.6" x 70.9"	3,200 x 1,500 mm 126.0" x 59.1"
TABLE	Max. loading	8,000 kg	8,000 kg	10,000 kg
	T-Slots (No. x Width x Pitch)	10 x 22 mm x 150 mm 10 x 0.9" x 6.0"	12 x 22 mm x 150 mm 12 x 0.9" x 6.0"	10 x 22 mm x 150 mm 10 x 0.9" x 6.0"
Model		BMC-3220	BMC-4217	BMC-4220
TRAVEL	X x Y x Z axis	3,200 x 2,350 x 850 (1,050) mm 126.0" x 92.5" x 33.5" (41.3")	4,200 x 2,050 x 850 (1,050) mm 165.4" x 80.7" x 33.5" (41.3")	4,200 x 2,350 x 850 (1,050) mm 165.4" x 92.5" x 33.5" (41.3")
	Spindle nose to table	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")	200~1,050 (200~1,250) mm 7.9"~41.3" (7.9"~49.2")
	Spindle center to solid column surface	550 mm 21.7"	550 mm 21.7"	550 mm 21.7"
	Working area	3,200 x 1,800 mm 126.0" x 70.9"	4,200 x 1,500 mm 165.4" x 59.1"	4,200 x 1,800 mm 165.4" x 70.9"
TABLE	Max. loading	10,000 kg	12,000 kg	12,000 kg
	T-Slots (No. x Width x Pitch)	12 x 22 mm x 150 mm 12 x 0.9" x 6.0"	10 x 22 mm x 150 mm 10 x 0.7" x 6.0"	12 x 22 mm x 150 mm 12 x 0.7" x 6.0"

Direct Transmission for Y-axis Motor for delivering stronger torque and better stability.





Look to the Maxmill **SPARQ series** for better ideas in heavy and precision cutting



SPARQ series

- BMC-3224

BMC-4224

BMC-5224

BMC-6224
- BMC-3227

BMC-4227

BMC-5227

BMC-6227
- BMC-3230

BMC-4230

BMC-5230

BMC-6230
- BMC-3233

BMC-4233

BMC-5233

BMC-6233

- The column and bridge are annealed and stress relieved to ensure structural stability.
- The entire machine structure has been analyzed and designed by PE and CAD for superior rigidity and accuracy.
- Linear guideways on X and Y axes, box ways on Z axis.
- High precision pre-loaded linear guideways feature low frictional co-efficient, low stick-slip and high thrust force sensitivity ensuring dynamic movement accuracy.
- 6,000 rpm gear-driven spindle is standard.
- 32-tool chain type ATC.
- Extra wide of side door for easy loading and unloading of workpieces.
- Ideal for: Automobile forming dies, plastic injection molds, machine parts machining, aerospace parts machining.



Machine Specifications:

Model		BMC-3224	BMC-4224	BMC-5224	BMC-6224	BMC-3227	BMC-4227	BMC-5227	BMC-6227
TRAVEL	X x Y x Z axis	3,200 x 2,700 x 920 (1,100) mm 126.0" x 106.3" x 36.2" (43.3")	4,200 x 2,700 x 920 (1,100) mm 165.4" x 106.3" x 36.2" (43.3")	5,200 x 2,700 x 920 (1,100) mm 204.7" x 106.3" x 36.2" (43.3")	6,200 x 2,700 x 920 (1,100) mm 244.1" x 106.3" x 36.2" (43.3")	3,200 x 3,000 x 920 (1,100) mm 126.0" x 118.2" x 36.2" (43.3")	4,200 x 3,000 x 920 (1,100) mm 165.4" x 118.2" x 36.2" (43.3")	5,200 x 3,000 x 920 (1,100) mm 204.7" x 118.2" x 36.2" (43.3")	6,200 x 3,000 x 920 (1,100) mm 244.1" x 118.2" x 36.2" (43.3")
	Spindle nose to table	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")
TABLE	Working area	3,200 x 2,100 mm 126.0" x 82.7"	4,200 x 2,100 mm 165.4" x 82.7"	5,200 x 2,100 mm 204.7" x 82.7"	6,200 x 2,100 mm 244.1" x 82.7"	3,200 x 2,400 mm 126.0" x 94.5"	4,200 x 2,400 mm 165.4" x 94.5"	5,200 x 2,400 mm 204.7" x 94.5"	6,200 x 2,400 mm 244.1" x 94.5"

Model		BMC-3230	BMC-4230	BMC-5230	BMC-6230	BMC-3233	BMC-4233	BMC-5233	BMC-6233
TRAVEL	X x Y x Z axis	3,200 x 3,300 x 920 (1,100) mm 126.0" x 130.0" x 36.2" (43.3")	4,200 x 3,300 x 920 (1,100) mm 165.4" x 130.0" x 36.2" (43.3")	5,200 x 3,300 x 920 (1,100) mm 204.7" x 130.0" x 36.2" (43.3")	6,200 x 3,300 x 920 (1,100) mm 244.1" x 130.0" x 36.2" (43.3")	3,200 x 3,600 x 920 (1,100) mm 126.0" x 141.8" x 36.2" (43.3")	4,200 x 3,600 x 920 (1,100) mm 165.4" x 141.8" x 36.2" (43.3")	5,200 x 3,600 x 920 (1,100) mm 204.7" x 141.8" x 36.2" (43.3")	6,200 x 3,600 x 920 (1,100) mm 244.1" x 141.8" x 36.2" (43.3")
	Spindle nose to table	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")	200~1,120 (200~1,300) mm 7.9"~44.1" (7.9"~51.2")
TABLE	Working area	3,200 x 2,700 mm 126.0" x 106.3"	4,200 x 2,700 mm 165.4" x 106.3"	5,200 x 2,700 mm 204.7" x 106.3"	6,200 x 2,700 mm 244.1" x 106.3"	3,200 x 2,700 mm 126.0" x 106.3"	4,200 x 2,700 mm 165.4" x 106.3"	5,200 x 2,700 mm 204.7" x 106.3"	6,200 x 2,700 mm 244.1" x 106.3"

CRUISER series Machine specifications:

Model		Unit	VMC-855	VMC-955	NVM-1150	VMC-1270	VMC-1470
TRAVEL	X x Y x Z axis	mm (inch)	800 x 500 x 520 (31.5 x 19.7 x 20.5)	900 x 650 x 600 (35.4 x 25.6 x 23.6)	1,150 x 670 x 600 (45.3 x 26.4 x 23.6)	1,200 x 700 x 600 (BT-40) / 630 (BT-50) (47.2 x 27.6 x 23.6) (BT-40) / (24.8 x 23.6) (BT-50)	1,400 x 700 x 600 (BT-40) / 630 (BT-50) (55.1 x 27.6 x 23.6) (BT-40) / (24.8 x 23.6) (BT-50)
	Spindle nose to table	mm (inch)	100~620 (3.9~24.5)	120~720 (4.7~28.3)	100~700 (4.0~27.6)	130~730 (BT-40) / 130~760 (BT-50) (5.1~28.7 (BT-40) / (5.3~30.0) (BT-50)	130~730 (BT-40) / 130~760 (BT-50) (5.1~28.7 (BT-40) / (5.3~30.0) (BT-50)
	Spindle center to solid column surface	mm (inch)	550 (21.7)	701 (27.6)	720 (28.4)	780 (30.7)	780 (30.7)
TABLE	Working area	mm (inch)	950 x 460 (37.5 x 18.1)	1,100 x 600 (43.3 x 23.7)	1,300 x 600 (51.2 x 23.7)	1,350 x 650 (53.2 x 25.6)	1,550 x 650 (61.0 x 25.6)
	Max.loading	kg	500	1,000	1,200	1,200	1,400
	T-Slots (No. x Width x Pitch)	mm (inch)	4 x 18 x 100 (4 x 0.7 x 4.0)	5 x 18 x 100 (5 x 0.7 x 4.0)	5 x 18 x 100 (5 x 0.7 x 4.0)	5 x 18 x 125 (5 x 0.7 x 5.0)	5 x 18 x 125 (5 x 0.7 x 5.0)
SPINDLE	Tool shank	—	BT-40	BT-40	BT-40	BT-40 (BT-50)	BT-40 (BT-50)
	Speed	rpm	10,000	10,000	10,000	8,000 (6,000)	8,000 (6,000)
	Transmission	—	Belt Drive	Belt Drive	Belt Drive	Belt Drive	Belt Drive
	Bearing lubrication	—	Grease	Grease	Grease	Grease	Grease
	Cooling system	—	Oil cooled	Oil cooled	Oil cooled	Oil cooled	Oil cooled
	Spindle motor max. rating	kw (HP)	7.5 (10)	11 (15)	11 (15)	15 (20)	15 (20)
	Axis motor max. rating (MITSUBISHI)	kw	1.5 / 2.0 / 1.5	2.0 / 3.5 / 2.0	2.0 / 3.5 / 3.5	3.5 / 3.5 / 3.5	3.5 / 3.5 / 3.5
FEED RATES	Axis motor max. rating (FANUC α)	kw	1.6 / 1.6 / 1.6	3.0 / 3.0 / 3.0	3.0 / 3.0 / 3.0	4.0 / 4.0 / 4.0	4.0 / 4.0 / 4.0
	Rapids on X & Y & Z axis	m/min	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20
	Max. cutting feedrate	m/min	10	10	10	10	10
TOOL MAGAZINE	Tool storage capacity	pcs	24 arm	24 arm	24 arm	24 arm	24 arm
	Type of tool (optional)	type	BT-40 (CAT-40)	BT-40 (CAT-40)	BT-40 (CAT-40)	BT-40 (CAT-40) / BT-50 (CAT-50)	BT-40 (CAT-40) / BT-50 (CAT-50)
	Max. tool diameter	mm (inch)	100 (4.0) armless / 76 (3.0) arm	100 (4.0) armless / 76 (3.0) arm	100 (4.0) armless / 76 (3.0) arm	100 (4.0) armless / 76 (3.0) arm	100 (4.0) armless / 76 (3.0) arm
	Max. tool weight	kg	7	7	7	7 (BT-40) / 15 (BT-50)	7 (BT-40) / 15 (BT-50)
	Max. tool length	mm (inch)	250 (9.8) armless / 300 (11.8) arm	250 (9.8) armless / 300 (11.8) arm	250 (9.8) armless / 300 (11.8) arm	250 (9.8) armless / 300 (11.8) arm	250 (9.8) armless / 300 (11.8) arm
AVG. CHANGING TIME (ARM)	Tool to tool	sec.	2.7	2.7	2.7	2.7 (BT-40) / 3.8 (BT-50)	2.7 (BT-40) / 3.8 (BT-50)
	Chip to chip (50% Z axis)	sec.	6.7	6.7	6.7	6.7 (BT-40) / 11 (BT-50)	6.7 (BT-40) / 11 (BT-50)
	Air source required	kg/cm²	6 up	6 up	6 up	6 up	6 up
ACCURACY	Positioning VDI 3341	mm (inch)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)
	Repeatability VDI 3341	mm (inch)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)
	Machine weight (Net)	kg	5,000 armless / 5,400 arm	6,200 armless / 6,700 arm	6,700 armless / 7,000 arm	9,600	10,000
DIMENSION	Power source required (KVA.)	KVA	15	15	15	30	30
	Floor space (L x W x H)	mm (inch)	2,508 x 2,745 x 2,720 (98.8 x 108.1 x 107.1)	2,795 x 2,875 x 2,700 (110.1 x 113.2 x 106.3)	3,140 x 2,880 x 2,850 (123.2 x 113.4 x 112.2)	3,418 x 3,380 x 2,920 (BT-40) (134.5 x 133.1 x 115.0) (BT-40) 3,418 x 3,380 x 3,030 (BT-50) (134.5 x 133.1 x 119.3) (BT-50)	3,858 x 3,380 x 2,920 (BT-40) (151.9 x 133.1 x 115.0) (BT-40) 3,858 x 3,380 x 3,030 (BT-50) (151.9 x 133.1 x 119.3) (BT-50)
	Shipment advice	—	1 x 40' HQ (3 sets)	1 x 40' HQ (2 sets)	1 x 40' HQ (2 sets)	1 x 40' HQ (1 set)	1 x 40' HQ (1 set)

STANDARD ACCESSORIES

- Mitsubishi M70 controller
- Spindle speed 6,000 / 8,000 / 10,000 rpm (depend on machine model)
- Automatic tool changer
- Full splash guard
- Heat exchanger for electric cabinet
- Automatic lubricating system
- Spindle oil cooler
- Spindle air blast system (M code)

- Spindle air curtain
- Spindle orientation
- Coolant gun and air socket
- Leveling kits
- Removable manual & pulse generator (M.P.G.)
- LED light
- Rigid tapping
- Coolant system and tank

- Cycle finish indicator and alarm lights
- RS-232C interface with cable (10 m) (M/F)
- Tool Box
- Operational and maintenance manual
- Transformer (M/F)

OPTIONAL ACCESSORIES:

- Controller (FANUC / SIEMENS / HEIDENHAIN)
- Spindle speed 12,000 rpm (Belt type)
- Spindle speed 12,000/15,000 rpm (Direct type)
- Coolant through spindle (CTS)
- Spindle coolant ring (M code)
- German ZF gear box
- Automatic tool length measuring device
- Automatic work piece measurement system

- Quick tool change (2 sec.)
- CNC rotary table and tailstock
- Oil skimmer
- Link/Screw type chip conveyor with chip bucket
- Linear scales (X/Y/Z axis)
- Coolant through tool holder
- Armless type ATC

CRONOS series Machine specifications:

Model		Unit	VMC-1490	VMC-1690	VMC-1890	VMC-2090
TRAVEL	X x Y x Z axis	mm (inch)	1,400 x 900 x 700 (55.1 x 35.4 x 27.6)	1,600 x 900 x 700 (63.0 x 35.4 x 27.6)	1,800 x 900 x 700 (70.9 x 35.4 x 27.6)	2,000 x 900 x 700 (78.8 x 35.4 x 27.6)
	Spindle nose to table	mm (inch)	200~900 (7.9~35.4)	200~900 (7.9~35.4)	250~950 (9.8~37.4)	250~950 (9.8~37.4)
	Spindle center to solid column surface	mm (inch)	990 (39.0)	990 (39.0)	990 (39.0)	990 (39.0)
TABLE	Working area	mm (inch)	1,700 x 850 (67.0 x 33.5)	1,900 x 850 (74.8 x 33.5)	2,100 x 970 (82.7 x 38.2)	2,300 x 970 (90.6 x 38.2)
	Max.loading	kg	1,600	2,000	2,500	2,800
	T-Slots (No. x Width x Pitch)	mm (inch)	5 x 22 x 150 (5 x 0.9 x 6.0)	5 x 22 x 150 (5 x 0.9 x 6.0)	5 x 22 x 150 (5 x 0.9 x 6.0)	5 x 22 x 150 (5 x 0.9 x 6.0)
SPINDLE	Tool shank	—	BT-50	BT-50	BT-50	BT-50
	Speed	rpm	6,000	6,000	6,000	6,000
	Transmission	—	2-Speed Gear Head	2-Speed Gear Head	2-Speed Gear Head	2-Speed Gear Head
	Bearing lubrication	—	Grease	Grease	Grease	Grease
	Cooling system	—	Oil cooled	Oil cooled	Oil cooled	Oil cooled
	Spindle motor max. rating	kw (HP)	15 (20)	15 (20)	18.5 (25)	18.5 (25)
	Axis motor max. rating (MITSUBISHI)	kw	3.5 / 3.5 / 3.5	3.5 / 4.5 / 3.5	4.5 / 7.0 / 4.5	4.5 / 7.0 / 4.5
FEED RATES	Axis motor max. rating (FANUC α)	kw	4.0 / 4.0 / 4.0	7.0 / 7.0 / 7.0	7.0 / 7.0 / 7.0	7.0 / 7.0 / 7.0
	Rapids on X & Y & Z axis	m/min	15 / 15 / 15	15 / 15 / 15	10 / 10 / 10	10 / 10 / 10
	Max. cutting feedrate	m/min	12	12	10	10
TOOL MAGAZINE	Tool storage capacity	pcs	24 / 32 arm	24 / 32 arm	32 arm	32 arm
	Type of tool (optional)	type	BT-50 (CAT-50)	BT-50 (CAT-50)	BT-50 (CAT-50)	BT-50 (CAT-50)
	Max. tool diameter	mm (inch)	110 (4.3)	110 (4.3)	110 (4.3)	110 (4.3)
	Max. tool weight	kg	15	15	15	15
	Max. tool length	mm (inch)	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)
AVG. CHANGING TIME (ARM)	Tool to tool	sec.	3.8	3.8	3.8	3.8
	Chip to chip (50% Z axis)	sec.	11	11	11	11
	Air source required	kg/cm²	6 up	6 up	6 up	6 up
ACCURACY	Positioning VDI 3341	mm (inch)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)
	Repeatability VDI 3341	mm (inch)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)	Ps 0.006 (0.0003)
	Machine weight (Net)	kg	11,800	12,800	17,500	18,500
DIMENSION	Power source required (KVA.)	KVA	30	35	35	35
	Floor space (L x W x H)	mm (inch)	3,420 x 3,675 x 3,280 (134.7 x 144.7 x 129.2)	4,030 x 3,675 x 3,280 (158.7 x 144.7 x 129.2)	5,360 x 4,170 x 3,500 (211.0 x 164.2 x 137.8)	5,620 x 4,170 x 3,500 (221.7 x 164.2 x 137.8)
	Shipment advice	—	1 x 20' FR (1 set)	1 x 20' FR (1 set)	1 x 20' FR (1 set)	1 x 20' FR (1 set)

STANDARD ACCESSORIES

- Mitsubishi M70 controller
- Spindle speed 6,000 rpm (Gear)
- Automatic tool changer
- YZ-axis slant cover protection chip auger (Work table rear)
- Full splash guard
- Heat exchanger for electric cabinet
- Automatic lubricating system
- Spindle oil cooler

- Spindle air blast system (M code)
- Spindle air curtain
- Spindle orientation
- Coolant gun and air socket
- Leveling kits
- Removable manual & pulse generator (M.P.G.)
- LED light
- Rigid tapping

- Coolant system and tank
- Cycle finish indicator and alarm lights
- RS-232C interface with cable (10 m) (M/F)
- Tool Box
- Operational and maintenance manual
- Transformer (M/F)
- Oil skimmer

OPTIONAL ACCESSORIES:

- Controller (FANUC / SIEMENS / HEIDENHAIN)
- Spindle speed 8000 / 10,000 rpm (Belt type)
- Spindle speed 8000 / 10,000 rpm (Direct drive)
- Coolant through spindle (CTS)
- Spindle coolant ring (M code)
- Automatic tool length measuring device
- Automatic work piece measurement system
- CNC rotary table and tail stock
- Link type chip conveyor with chip bucket
- Linear scales (X/Y/Z axis)
- Coolant through tool holder

MASTARR series Machine specifications:

Model		Unit	TMC-500	QMC-600	QMC-850	QMC-1050	HQM-1050	HQM-1260	HQM-1480	HQM-1680
TRAVEL	X x Y x Z axis	mm (inch)	510 x 400 x 320 (20.1 x 15.7 x 12.6)	610 x 410 x 530 (24.0 x 16.1 x 20.9)	850 x 550 x 560 (33.5 x 21.7 x 22.1)	1,050 x 550 x 560 (41.3 x 21.7 x 22.1)	1,050 x 550 x 600 (41.3 x 21.7 x 23.6)	1,200 x 650 x 630 (47.2 x 25.6 x 24.8)	1,400 x 800 x 750 (55.1 x 31.5 x 29.5)	1,600 x 800 x 750 (63.0 x 31.5 x 29.5)
	Spindle nose to table	mm (inch)	150~470 (5.9~18.5)	100~630 (3.9~24.8)	120~680 (4.7~26.8)	120~680 (4.7~26.8)	120~720 (4.7~28.3)	100~730 (3.9~28.7)	Std:75~825 (3.0~32.5) Opt:40~790 (1.6~31.1)	Std:75~825 (3.0~32.5) Opt:40~790 (1.6~31.1)
	Spindle center to solid column surface	mm (inch)	474 (18.7)	495 (19.5)	600 (23.6)	600 (23.6)	600 (23.6)	700 (27.6)	863 (33.9)	863 (33.9)
TABLE	Working area	mm (inch)	660 x 400 (25.9 x 15.7)	710 x 410 (27.9 x 16.1)	950 x 500 (37.4 x 19.7)	1,150 x 500 (45.3 x 19.7)	1,150 x 550 (45.3 x 21.7)	1,350 x 600 (53.1 x 23.6)	1,550 x 700 (61.0 x 27.6)	1,750 x 700 (68.9 x 27.6)
	Max.loading	kg	250	300	500	700	880	880	1000	1200
	T-Slots (No. x Width x Pitch)	mm (inch)	3 x 14 x 125 (3.0 x 0.5 x 4.9)	3 x 18 x 125 (3.0 x 0.7 x 4.9)	4 x 18 x 125 (4.0 x 0.7 x 4.9)	4 x 18 x 125 (4.0 x 0.7 x 4.9)	4 x 18 x 130 (4.0 x 0.7 x 5.1)	4 x 18 x 130 (4.0 x 0.7 x 5.1)	5 x 18 x 125 (5.0 x 0.7 x 4.9)	5 x 18 x 125 (5.0 x 0.7 x 4.9)
SPINDLE	Tool shank	—	BT-30	BT-40	BT-40	BT-40	BT-40	BT-40	Std : BT-40 / Opt. BT-50	Std : BT-40 / Opt. BT-50
	Speed	rpm	20,000	12,000	10,000	10,000	10,000	10,000	Std : 10,000(BT-40) Opt : 8,000(BT-50)	Std : 10,000(BT-40) Opt : 8,000(BT-50)
	Transmission	—	Direct Drive	Direct Drive	Belt Drive	Belt Drive	Belt Drive	Belt Drive	Belt Drive	Belt Drive
	Bearing lubrication	—	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease
	Cooling system	—	Oil cooled	Oil cooled	Oil cooled	Oil cooled	Oil cooled	Oil cooled	Oil cooled	Oil cooled
	Spindle motor max. rating	kw(HP)	3.7(5)	7.5(10)	7.5(10)	11(15)	11(15)	11(15)	BT-40 : 15(20)/BT-50 :18.5(25)	BT-40 : 15(20)/BT-50 :18.5(25)
	Axis motor max. rating (MITSUBISHI)	kw	1.5 / 1.5 / 3.0	1.5 / 1.5 / 3.0	1.5 / 2.0 / 3.5	2.0 / 3.5 / 3.5	2.0 / 3.5 / 3.5	2.0 / 3.5 / 3.5	3.5 / 3.5 / 3.5	3.5 / 3.5 / 3.5
	Axis motor max. rating (FANUC α)	kw	1.2 / 1.2 / 1.8	1.2 / 1.2 / 1.8	3.0 / 3.0 / 4.0	3.0 / 3.0 / 4.0	3.0 / 3.0 / 4.0	3.0 / 3.0 / 4.0	4.0 / 4.0 / 4.0	4.0 / 4.0 / 4.0
FEED RATES	Rapids on X / Y & Z axis (linear guideway)	m/min	48 / 48 / 48	48 / 48 / 48	36 / 36 / 25	36 / 36 / 25	36 / 36 / 25	40 / 40 / 30	30 / 30 / 25	30 / 30 / 25
	Max. cutting feedrate	m/min	10	10	10	10	15	15	10	10
	Tool storage capacity	pcs	16 turret	20 arm	20 armless / 24 arm	20 armless / 24 arm	20 armless / 24 arm	24 arm	24 arm	24 arm
TOOL MAGAZINE	Type of tool (optional)	type	BT-30 turret type	BT-40(CAT-40)	BT-40(CAT-40)	BT-40(CAT-40)	BT-40(CAT-40)	BT-40(CAT-40)	Std:BT-40(CAT-40) Opt:BT-50(CAT-50)	Std:BT-40(CAT-40) Opt:BT-50(CAT-50)
	Max. tool diameter	mm (inch)	60 (2.4) turret	76 (3.0) arm	100 (4.0) armless 76 (3.0) arm	100 (4.0) armless 76 (3.0) arm	100 (4.0) armless 76 (3.0) arm	76 (3.0) arm	76 (3.0) arm	76 (3.0) arm
	Max. tool weight	kg	3	5	7	7	7	7	7	7
	Max. tool length	mm (inch)	200 (7.9) turret	250 (9.8) arm	250 (9.8) armless 300 (11.8) arm	250 (9.8) armless 300 (11.8) arm	250 (9.8) armless 300 (11.8) arm	300 (11.8) arm	300 (11.8) arm	300 (11.8) arm
AVG. CHANGING TIME (ARM)	Tool to tool	sec.	1.4	2.5	2.7	2.7	2.7	2.7	2.7(BT-40) / 3.8(BT-50)	2.7(BT-40) / 3.8(BT-50)
	Chip to chip (50% Z axis)	sec.	3.6	3.6	6.7	6.7	6.7	6.7	6.7(BT-40) / 11(BT-50)	6.7(BT-40) / 11(BT-50)
	Air source required	kg/cm ²	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up
ACCURACY	Positioning VDI 3341	mm (inch)	P 0.01 (0.0004)	P 0.005 (0.0002)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)	P 0.01 (0.0004)
	Repeatability VDI 3341	mm (inch)	Ps 0.006 (0.0002)	Ps 0.003 (0.0001)	Ps 0.006 (0.0002)	Ps 0.006 (0.0002)	Ps 0.006 (0.0002)	Ps 0.006 (0.0002)	Ps 0.006 (0.0002)	Ps 0.006 (0.0002)
DIMENSION	Machine weighe (Net)	kg	3,000 arm	4,000 arm	5,300 armless / 5,900 arm	5,800 armless / 6,300 arm	7,500 arm	7,700 arm	11,600 arm	12,100 arm
	Power source required (KVA.)	KVA	15	15	15	15	20	20	30	30
	Floor space (L x W x H)	mm (inch)	1,600 x 2,150 x 2,320 (63.0 x 84.6 x 91.3)	1,900 x 2,265 x 2,705 (74.8 x 89.2 x 106.5)	2,710 x 3,000 x 2,863 (106.7 x 118.1 x 112.7)	2,850 x 3,000 x 2,863 (112.2 x 118.1 x 112.7)	3,100 x 2,467 x 2,642 (121.6 x 97.1 x 103.7)	3,640 x 3,796 x 2,847 (143.3 x 149.1 x 112.1)	3,930 x 3,200 x 3,050 (154.7 x 125.6 x 120.5)	4,330 x 3,200 x 3,050 (170.5 x 125.6 x 120.5)
	Shipment advice	—	1 x 40' HQ (4 sets)	1 x 40' HQ (4 sets)	1 x 40' HQ (3 sets)	1 x 40' HQ (3 sets)	1 x 40' HQ (2sets)	1 x 40' HQ (1 set)	1 x 40' HQ (1 set)	1 x 40' HQ (1 set)

STANDARD ACCESSORIES: - Mitsubishi M70 controller - Spindle speed 6,000 / 8,000 / 10,000 / 12,000 rpm(depend on machine model) - Automatic tool changer - Full splash guard - Heat exchanger for electric cabinet - Automatic lubricating system - Spindle air blast system (M code)	- Spindle oil cooler - Spindle air curtain - Spindle orientation - Coolant gun and air socket - Leveling kits - Removable manual & pulse generator (M.P.G.) - LED light - Rigid tapping	- Coolant system and tank - Cycle finish indicator and alarm lights - RS-232C interface with cable (10 m) (M/F) - Tool Box - Operational and maintenance manual - Transformer (M/F) - Twin-chip auger(rear-out)(HQM-1260)	OPTIONAL ACCESSORIES: - Spindle speed 12,000 rpm (Belt type) - Spindle speed 12,000/15,000 rpm (Direct type) - Coolant through spindle (CTS) - Spindle coolant ring (M code) - Controller (FANUC / SIEMENS / HEIDENHAIN) - German ZF gear box - Automatic tool length measuring device - Automatic work piece measurement system	- Quick tool change (2 sec.) - CNC rotary table and tailstock - Oil skimmer - Link/Screw type chip conveyor with chip bucket - Linear scales (X/Y/Z axis) - Coolant through tool holder
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QMC-600 Optional Accessories:

- Spindle speed 15,000 rpm (Direct drive)
- Coolant through spindle (CTS)(NOP Brand)
- Controller (FANUC / SIEMENS / HEIDENHAIN)
- Work piece measurement system
- Auto tool length measuring device
- CNC rotary table and tail stock
- Oil skimmer
- Spindle coolant ring
- Coolant through tool holder
- Link type chip conveyor with chip bucket

⚠ TMC-500 Accessories is not included shown, for more information please contact sales person.

KOLOSSO series Machine specifications:

Model		Unit	BMC-2217	BMC-2220	BMC-3217	BMC-3220	BMC-4217	BMC-4220
TRAVEL	X x Y x Z axis	mm (inch)	2,200 x 2,050 x 850 (1050 opt.) (86.6 x 80.7 x 33.5) (41.3 opt.)	2,200 x 2,350 x 850 (1050 opt.) (86.6 x 92.5 x 33.5) (41.3 opt.)	3,200 x 2,050 x 850 (1050 opt.) (126.0 x 80.7 x 33.5) (41.3 opt.)	3,200 x 2,350 x 850 (1050 opt.) (126.0 x 92.5 x 33.5) (41.3 opt.)	4,200 x 2,050 x 850 (1050 opt.) (165.4 x 80.7 x 33.5) (41.3 opt.)	4,200 x 2,350 x 850 (1050 opt.) (165.4 x 92.5 x 33.5) (41.3 opt.)
	Spindle nose to table	mm (inch)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)	200~1,050 (200~1,250) (7.9~41.3) (7.9~49.2)
	Distance between spindle center to bridge	mm (inch)	550 (21.7)	550 (21.7)	550 (21.7)	550 (21.7)	550 (21.7)	550 (21.7)
	Door width	mm (inch)	1,700 (66.9)	2,000 (78.7)	1,700 (66.9)	2,000 (78.7)	1,700 (66.9)	2,000 (78.7)
TABLE	Working area	mm (inch)	2,200 x 1,500 (86.6 x 59.1)	2,200 x 1,800 (86.6 x 70.9)	3,200 x 1,500 (126.0 x 59.1)	3,200 x 1,800 (126.0 x 70.9)	4,200 x 1,500 (165.4 x 59.1)	4,200 x 1,800 (165.4 x 70.9)
	Max. loading	kg	8,000	8,000	10,000	10,000	12,000	12,000
	T-Slots (No. x Width x Pitch)	mm (inch)	10 x 22 x 150 (10.0 x 0.8 x 6.0)	12 x 22 x 150 (12.0 x 0.8 x 6.0)	10 x 22 x 150 (10.0 x 0.8 x 6.0)	12 x 22 x 150 (12.0 x 0.8 x 6.0)	10 x 22 x 150 (10.0 x 0.8 x 6.0)	12 x 22 x 150 (12.0 x 0.8 x 6.0)
SPINDLE	Spindle speed	rpm	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000
	Spindle motor max. rating	kw	18.5 (26 opt.)	18.5 (26 opt.)	18.5 (26 opt.)	18.5 (26 opt.)	18.5 (26 opt.)	18.5 (26 opt.)
	Motor for 3 axes	kw	7 / 7 / 7	7 / 7 / 7	7 / 7 / 7	7 / 7 / 7	7 / 7 / 7	7 / 7 / 7
	Taper size	—	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50
	Rapid on X / Y / Z axis	m/min	20 / 20 / 15	20 / 20 / 15	20 / 20 / 15	20 / 20 / 15	20 / 20 / 15	20 / 20 / 15
FEED RATES	Cutting feedrate	m/min	10	10	10	10	10	10
	Tool number	pcs	32 (40 / 60 opt.)	32 (40 / 60 opt.)	32 (40 / 60 opt.)	32 (40 / 60 opt.)	32 (40 / 60 opt.)	32 (40 / 60 opt.)
TOOL MAGAZINE	Max. tool diameter	mm (inch)	127 (5.0)	127 (5.0)	127 (5.0)	127 (5.0)	127 (5.0)	127 (5.0)
	Max. tool weight	kg	15	15	15	15	15	15
	Max. tool length	mm (inch)	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)
	Tool to tool (change time)	sec.	8	8	8	8	8	8
ACCURACY	Positioning VDI 3341	mm (inch)	P 0.02 (0.0008)	P 0.02 (0.0008)	P 0.025 (0.001)	P 0.025 (0.001)	P 0.03 (0.0012)	P 0.03 (0.0012)
	Repeatability VDI 3341	mm (inch)	Ps 0.015 (0.0006)	Ps 0.015 (0.0006)	Ps 0.02 (0.0008)	Ps 0.02 (0.0008)	Ps 0.025 (0.001)	Ps 0.025 (0.001)
DIMENSION	Air source required	kg/cm ²	6	6	6	6	6	6
	Machine weighe (Net)	kg	24,000	25,500	27,500	29,000	31,000	32,500
	Power source required	KVA	50	50	50	50	50	50
	Floor space (L x W x H)	mm (inch)	6,800 x 4,435 x 4,535 (267.7 x 174.6 x 178.5)	6,800 x 4,735 x 4,535 (267.7 x 186.4 x 178.5)	8,800 x 4,435 x 4,535 (346.5 x 174.6 x 178.5)	8,800 x 4,735 x 4,535 (346.5 x 186.4 x 178.5)	10,800 x 4,435 x 4,535 (425.2 x 174.6 x 178.5)	10,800 x 4,735 x 4,535 (425.2 x 186.4 x 178.5)

STANDARD ACCESSORIES

- Fanuc 0i-MF controller
- BT-50 / Spindle speed 6,000 rpm (Gear)
- 32 tools chain type ATC
- Twin screw and one link chip conveyor with chip bucket
- Full splash guard (No roof)
- Heat exchanger for electric cabinet
- Foot switch for tool clamping / unclamping
- Twin hydraulic counter weight cylinders

- Cycling lubricating oil collector for 3 axes
- Automatic lubricating system
- Spindle oil cooler
- Spindle air blast system (M code)
- Spindle air curtain
- X, Y axes linear way (Roller Type) ; Z axis: box way
- Coolant gun and air socket
- Foundation bolt kit

- Remote manual & pulse generator (M.P.G.)
- LED light
- Rigid tapping
- Coolant system and tank
- Cycle finish indicator and alarm lights
- RS-232C interface with cable (10 m) (M/F)
- Tool Box
- Oil skimmer
- Operational and maintenance manual
- Transformer (M/F)

OPTIONAL ACCESSORIES:

- Controller (MITSUBISHI / SIEMENS / HEIDENHAIN)
- Z axis travel up to 1,050 mm
- ATC (24 / 40 / 60 tools)
- Spindle speed 8,000 / 10,000 rpm (Direct drive)
- 30 HP spindle motor upgrade
- Ball screw cooling system (X/Y/Z axis)
- Manual 90 degree head
- Manual universal head
- Automatic tool length measuring device
- Automatic work piece measurement system
- Coolant through spindle (CTS)
- Linear scales (X/Y/Z axis)
- CNC rotary table and tailstock

⚠ All specifications are subject to change without prior notice. Machine colors shown in this catalog are for reference only. Correct colors are dependent on the actual machine.

SPARQ series Machine specifications:

Model		Unit	BMC-3224	BMC-4224	BMC-5224	BMC-6224	BMC-3227	BMC-4227	BMC-5227	BMC-6227	BMC-3230	BMC-4230	BMC-5230	BMC-6230	BMC-3233	BMC-4233	BMC-5233	BMC-6233
TRAVEL	X x Y x Z axis	mm(inch)	3,200 x 2,700 x 920(1,100 opt.) (126.0 x 106.3 x 36.2)(43.3 opt.)	4,200 x 2,700 x 920(1,100 opt.) (165.4 x 106.3 x 36.2)(43.3 opt.)	5,200 x 2,700 x 920(1,100 opt.) (204.7 x 106.3 x 36.2)(43.3 opt.)	6,200 x 2,700 x 920(1,100 opt.) (244.1 x 106.3 x 36.2)(43.3 opt.)	3,200 x 3,000 x 920(1,100 opt.) (126.0 x 118.1 x 36.2)(43.3 opt.)	4,200 x 3,000 x 920(1,100 opt.) (165.4 x 118.1 x 36.2)(43.3 opt.)	5,200 x 3,000 x 920(1,100 opt.) (204.7 x 118.1 x 36.2)(43.3 opt.)	6,200 x 3,000 x 920(1,100 opt.) (244.1 x 118.1 x 36.2)(43.3 opt.)	3,200 x 3,300 x 920(1,100 opt.) (126.0 x 130.0 x 36.2)(43.3 opt.)	4,200 x 3,300 x 920(1,100 opt.) (165.4 x 130.0 x 36.2)(43.3 opt.)	5,200 x 3,300 x 920(1,100 opt.) (204.7 x 130.0 x 36.2)(43.3 opt.)	6,200 x 3,300 x 920(1,100 opt.) (244.1 x 130.0 x 36.2)(43.3 opt.)	3,200 x 3,600 x 920(1,100 opt.) (126.0 x 141.8 x 36.2)(43.3 opt.)	4,200 x 3,600 x 920(1,100 opt.) (165.4 x 141.8 x 36.2)(43.3 opt.)	5,200 x 3,600 x 920(1,100 opt.) (204.7 x 141.8 x 36.2)(43.3 opt.)	6,200 x 3,600 x 920(1,100 opt.) (244.1 x 141.8 x 36.2)(43.3 opt.)
	Spindle nose to table	mm(inch)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)	200~1,120(200~1,300) (7.9~44.1)(7.9~51.2)
	Distance between spindle center to bridge	mm(inch)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)	475(18.7)
	Distance between columns	mm(inch)	2,350(92.5)	2,350(92.5)	2,350(92.5)	2,350(92.5)	2,650(104.3)	2,650(104.3)	2,650(104.3)	2,650(104.3)	2,950(116.2)	2,950(116.2)	2,950(116.2)	2,950(116.2)	3,250(128.0)	3,250(128.0)	3,250(128.0)	3,250(128.0)
TABLE	Working area	mm(inch)	3,200 x 2,100(126.0 x 82.7)	4,200 x 2,100(165.4 x 82.7)	5,200 x 2,100(204.7 x 82.7)	6,200 x 2,100(244.1 x 82.7)	3,200 x 2,400(126.0 x 94.5)	4,200 x 2,400(165.4 x 94.5)	5,200 x 2,400(204.7 x 94.5)	6,200 x 2,400(244.1 x 94.5)	3,200 x 2,700(126.0 x 106.3)	4,200 x 2,700(165.4 x 106.3)	5,200 x 2,700(204.7 x 106.3)	6,200 x 2,700(244.1 x 106.3)	3,200 x 2,700(126.0 x 106.3)	4,200 x 2,700(165.4 x 106.3)	5,200 x 2,700(204.7 x 106.3)	6,200 x 2,700(244.1 x 106.3)
	Max. loading	kg	15,000	17,000	20,000	22,000	16,000	18,000	21,000	23,000	17,000	19,000	22,000	24,000	17,000	19,000	22,000	24,000
	T-Slots (No. x Width x Pitch)	mm(inch)	10 x 22 x 200(4 x 0.875 x 7.9)	10 x 22 x 200(4 x 0.875 x 7.9)	10 x 22 x 200(4 x 0.875 x 7.9)	10 x 22 x 200(4 x 0.875 x 7.9)	12 x 22 x 200(4 x 0.875 x 7.9)	12 x 22 x 200(4 x 0.875 x 7.9)	12 x 22 x 200(4 x 0.875 x 7.9)	12 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)	14 x 22 x 200(4 x 0.875 x 7.9)
SPINDLE	Tool shank	—	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50
	Spindle speed	rpm	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000	50~6,000
	Spindle motor max. rating	kw	18.5(26 opt.)	26	26	26	18.5(26 opt.)	26	26	26	18.5(26 opt.)	26	26	26	18.5(26 opt.)	26	26	26
	Axis motor max. rating	kw	7/7/7	9/7/7	9/7/7	9/7/7	7/7/7	9/7/7	9/7/7	9/7/7	7/7/7	9/7/7	9/7/7	9/7/7	7/7/7	9/7/7	9/7/7	9/7/7
FEED RATES	Rapid on X / Y / Z axis	m/min	15 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12	15 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12	15 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12	15 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12
	Max. cutting feedrate	m/min	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
TOOL MAGAZINE	Tool storage capacity	pcs	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)	32(40 / 60 opt.)
	Type of tool	type	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50	BT-50
	Max. tool diameter	mm(inch)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)	127(5.0)
	Max. tool weight	kg	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	Max. tool length	mm(inch)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)	300(11.8)
	Tool to tool (change time)	sec.	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
ACCURACY	Positioning VDI 3341	mm(inch)	P 0.025(0.0010)	P 0.03(0.0012)	P 0.04(0.0016)	P 0.05(0.0020)	P 0.025(0.0010)	P 0.03(0.0012)	P 0.04(0.0016)	P 0.05(0.0020)	P 0.025(0.0010)	P 0.03(0.0012)	P 0.04(0.0016)	P 0.05(0.0020)	P 0.025(0.0010)	P 0.03(0.0012)	P 0.04(0.0016)	P 0.05(0.0020)
	Repeatability VDI 3341	mm(inch)	Ps 0.02(0.0008)	Ps 0.025(0.0010)	Ps 0.03(0.0012)	Ps 0.035(0.0014)	Ps 0.02(0.0008)	Ps 0.025(0.0010)	Ps 0.03(0.0012)	Ps 0.035(0.0014)	Ps 0.02(0.0008)	Ps 0.025(0.0010)	Ps 0.03(0.0012)	Ps 0.035(0.0014)	Ps 0.02(0.0008)	Ps 0.025(0.0010)	Ps 0.03(0.0012)	Ps 0.035(0.0014)
DIMENSION	Machine weight (Net)	kg	38,000	42,000	47,000	51,500	39,500	43,500	48,500	53,500	41,000	45,000	50,000	55,000	42,000	49,000	53,000	58,000
	Power source required (KVA.)	KVA	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Floor space (L x W x H)	mm(inch)	8,470 x 5,240 x 4,600 (333.5 x 206.3 x 181.1)	10,470 x 5,240 x 4,600 (412.2 x 206.3 x 181.1)	12,470 x 5,240 x 4,600 (490.9 x 206.3 x 181.1)	14,470 x 5,240 x 4,600 (569.7 x 206.3 x 181.1)	8,470 x 5,540 x 4,600 (333.5 x 218.2 x 181.1)	10,470 x 5,540 x 4,600 (412.2 x 218.2 x 181.1)	12,470 x 5,540 x 4,600 (490.9 x 218.2 x 181.1)	14,470 x 5,540 x 4,600 (569.7 x 218.2 x 181.1)	8,470 x 5,840 x 4,600 (333.5 x 230.0 x 181.1)	10,470 x 5,840 x 4,600 (412.2 x 230.0 x 181.1)	12,470 x 5,840 x 4,600 (490.9 x 230.0 x 181.1)	14,470 x 5,840 x 4,600 (569.7 x 230.0 x 181.1)	8,470 x 6,140 x 4,600 (333.5 x 241.8 x 181.1)	10,470 x 6,140 x 4,600 (412.2 x 241.8 x 181.1)	12,470 x 6,140 x 4,600 (490.9 x 241.8 x 181.1)	14,470 x 6,140 x 4,600 (569.7 x 241.8 x 181.1)
	Air source required	kg/cm²	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up	6 up
	Shipment advice	—	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise	Will advise

STANDARD ACCESSORIES

- Fanuc 0i-MF controller
- BT-50 / Spindle speed 6,000 rpm (Gear)
- 32 tools chain-type tool change
- Twin screw and one link chip conveyor with chip bucket
- Full splash guard (No roof)
- Heat exchanger for electric cabinet
- Foot switch for tool clamping / unclamping
- Twin hydraulic counter weight cylinders
- Cycling lubricating oil collector for 3 axes
- Automatic lubricating system
- Spindle oil cooler
- Spindle air blast system (M code)
- Spindle air curtain
- X, Y axes linear way (Roller Type) ; Z axis : box way
- Ball screw cooling system (X axis)
- Coolant gun and air socket
- Foundation bolt kit
- Removable manual & pulse generator (M.P.G.)

OPTIONAL ACCESSORIES:

- Controller (MITSUBISHI / SIEMENS / HEIDENHAIN)
- Z axis travel up to 1,100 mm
- Heighten column by 200 mm
- ATC (40 / 60 tools)
- Spindle speed 8,000 rpm (Belt drive)
- Spindle speed 8,000 / 10,000 rpm (Direct drive, Linear way)
- 30/35 HP spindle motor upgrade
- Ball screw cooling system (Y/Z axis)
- Schneeberger X / Z axis linear guide way (roller type)
- Z axis linear guide way
- Manual 90 degree head
- Manual universal head
- Extended head with clamping / unclamping tool
- Ladder for maintenance (Opt. for 3m and 4m M/C)
- Automatic tool length measuring device
- Automatic work piece measurement system
- Coolant through spindle (CTS)
- Linear scales (X/Y/Z axis)
- CNC rotary table and tailstock

Controller

A controller is the brain inside every machine. Maxmill provides complete choices for your varied preferences.



mitsubishi:

M70/M80-Economical solution that completes all part machining needs. The same operational method as M720 / M730.
M720-Great for part / mold / dye.
M730/M830-Advance new model which is ultra powerful in processing speed, operate with window system.

Options:

- CF card (front slot) - Standard in M70, M720 and M730
- USB outlet-Standard in M720 and M730
- Data server/Ethernet-Large memory for program (standard for M70, M720, M730)
- Navi mill-User-friendly helpful interface, swiftly takes you step through the complexity of operation menu. (Standard for M70, M720, M730)
- G61.1/G08P1-High accuracy control, avoid over cutting.
- G05.1Q1-High speed high accuracy control : Mode 1, the performance of simultaneous 3 axes and 1mm-length fine-segment as 16.8m / min for M70, 33.7m / min for M730 avoid over-cutting.
- G05P10000-High speed high accuracy control : Mode 2, the performance of simultaneous 3 axes and 1mm-length fine-segment as 33.7m / min for M70, 67m / min for M720, 135m / min for M730 avoid over-cutting.
- SSS-Super smooth surface (for M720 and M730)

HEIDENHAIN:

iTNC-530 / TNC-640 / TNC-620 - Powerful functions, high processing speed controller, superior controlling interface, great for part / mold / dye in any field.
Features a new, more powerful processor architecture in order to enable jobs in the workshop to be finished quicker than ever. It has a sophisticated closed-loop control methods and short block processing times, a fast editor allowing speedy editing and optimized graphic buildup enabling users to quickly verify even the most complex of programs.

FANUC:

0i-MF- can be applied to the parts and mold in general working.

Standard accessories: PCMCIA card

31i-MB- can be applied to the parts and mold working of high-speed and high-accuracy

Standard accessories: PCMCIA card and USB interface

Options:

0i-MF

- AICC I : Pre-read 40 blocks (Standard)
- AICC II : Pre-read 200 blocks (Option)

31i-MB

- AICC I : Pre-read 40 blocks (Standard)
- AICC II : Pre-read 200 blocks (Option)
- AICC II High Speed Processing I : Pre-read 600 blocks (Option)
- AICC II High Speed Processing II : Pre-read 1000 blocks (Option)

Quality & Inspection



Measurement of inspection
by 2D coordinate 2D



Measurement of accuracy



Measurement of accuracy



Measurement of
inspection for hardness



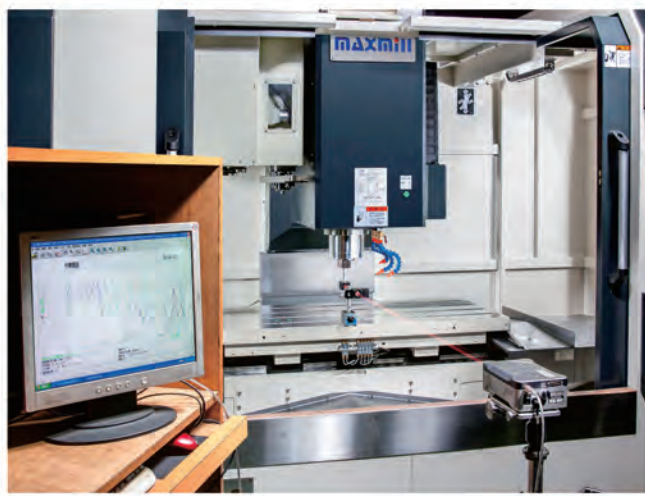
Measurement of accuracy



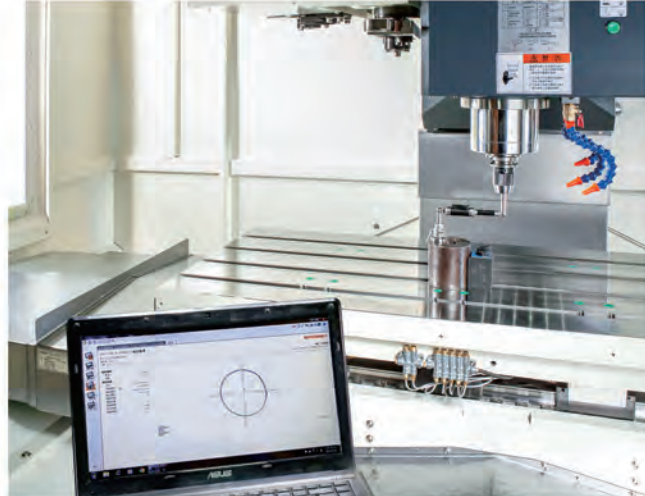
Measurement of accuracy



Measurement of parallelism
and concentricity



Measurement by Laser



Measurement by Ball-bar

Direct Driven Spindle (optional)



Chip Conveyor (optional)

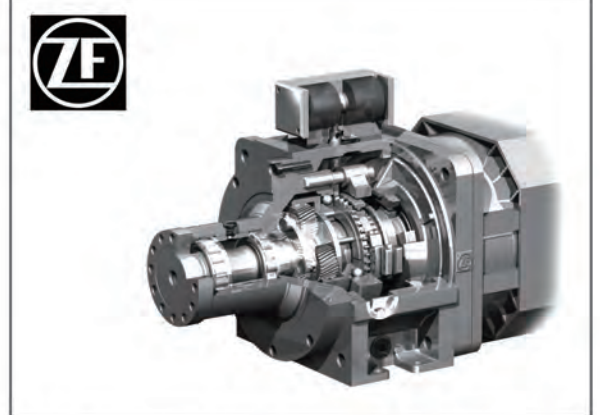
- ◆ Link Type Chip Conveyor
- ◆ Screw Type Chip Conveyor
- ◆ Scraper Type Chip Conveyor
- ◆ Vanes Type Chip Conveyor

During machining, chips are flushed into the chip auger, then delivered to chip tray. This ensures a cleaner working area at all time.
Please choose the most suitable chip conveyor accordance to your machining chip scenario

Chip type Conveyor type	Curly Iron Chip	Metallic Chip	Non-Curly Chip	Curly Aluminum Chip	Aluminum Chip	Non-Metallic Chip
Link type	●	●	●	○		○
Screw type		○	○		○	○
Scraper type			○	●	●	●
Vanes type		○	○		○	○

● Best efficiency ○ Above average efficiency ○ Other possible choices

Gear Box (optional)



Spindle bearing and gear-box using the strong enforced auto-cooling-lubricated system, continuous circulation of cooling and lubrication which greatly minimizes heat deformation and extends machine-life.