

maxmill Since 1960

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IT'S VERY WELL
MADE IN TAIWAN

CE ISO 9001

All specifications are subject to change without prior notice.



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SPARQ Series

5-Face Machining Center



Rugged and Robust Structure
The Very Basis of Ultimate Accuracy



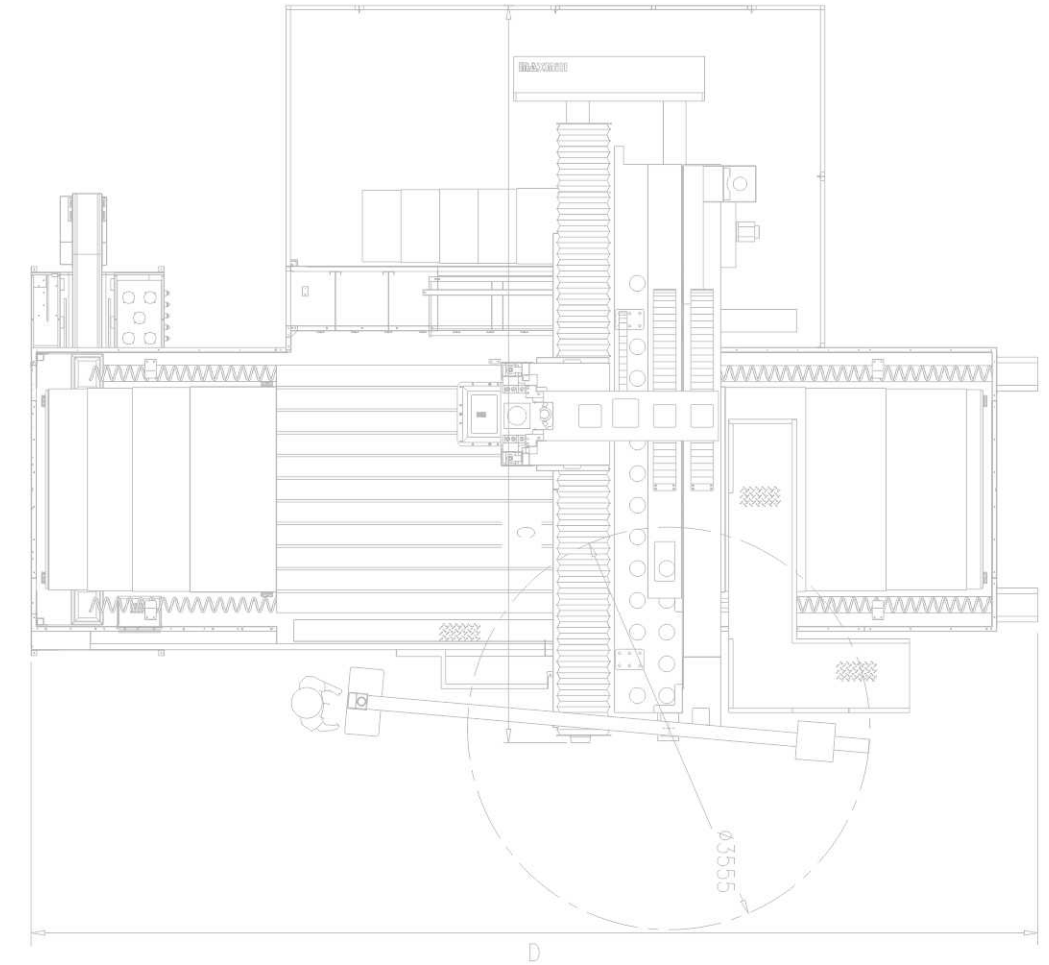
Finest Movement | Heavy-duty Cutting | Maximum Machining Space

SPARQ Series 5-face Machining Center Dimensions

Unit: mm(inch)

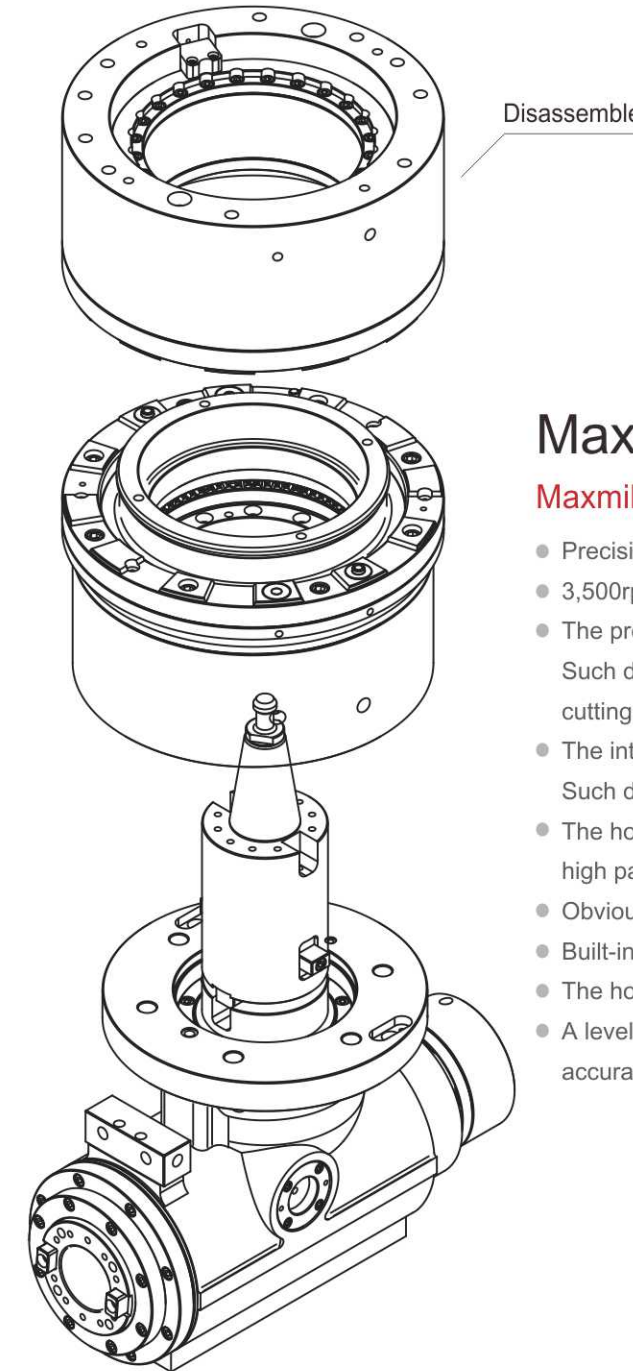
SPARQ Series	Z-axis Travel	A Between Two Columns	B M/C Height	C Width	D M/C Length	E Table to Ground	F Height	G Bottom of 90° Angular Head to Table (Horizontal)	H Spindle to Table Top (Vertical)	J 500mm Extended Head Spindle to Table Top (Vertical)
BMC-5F-3224		2,350 (92.5)		6,765 (266.3)						
BMC-5F-3227		2,650 (104.3)		7,065 (278.1)	8,470 (333.5)					
BMC-5F-3230		2,950 (116.1)		7,365 (289.9)						
BMC-5F-3233		3,250 (128.0)		7,665 (301.7)						
BMC-5F-4224		2,350 (92.5)		6,765 (266.3)						
BMC-5F-4227		2,650 (104.3)		7,065 (278.1)	10,470 (412.2)					
BMC-5F-4230		2,950 (116.1)		7,365 (289.9)						
BMC-5F-4233		3,250 (128.0)		7,665 (301.7)						
BMC-5F-5224	1,100 (43.3)	2,350 (92.5)	5,510 (216.9)	6,765 (266.3)		955 (37.6)	2,160 (85.0)	95~1,195 (3.7~47.0)	500~1,600 (19.7~63.0)	-200~900 (-7.9~35.4)
BMC-5F-5227		2,650 (104.3)		7,065 (278.1)	12,470 (490.9)					
BMC-5F-5230		2,950 (116.1)		7,365 (289.9)						
BMC-5F-5233		3,250 (128.0)		7,665 (301.7)						
BMC-5F-6224		2,350 (92.5)		6,765 (266.3)						
BMC-5F-6227		2,650 (104.3)		7,065 (278.1)	14,470 (569.7)					
BMC-5F-6230		2,950 (116.1)		7,365 (289.9)						
BMC-5F-6233		3,250 (128.0)		7,665 (301.7)						

*** The content size by the standard specification definition, specially heighten column, please inquiry separately.





The cutting performance of Maxmill ultra rigid angle head performs like no other

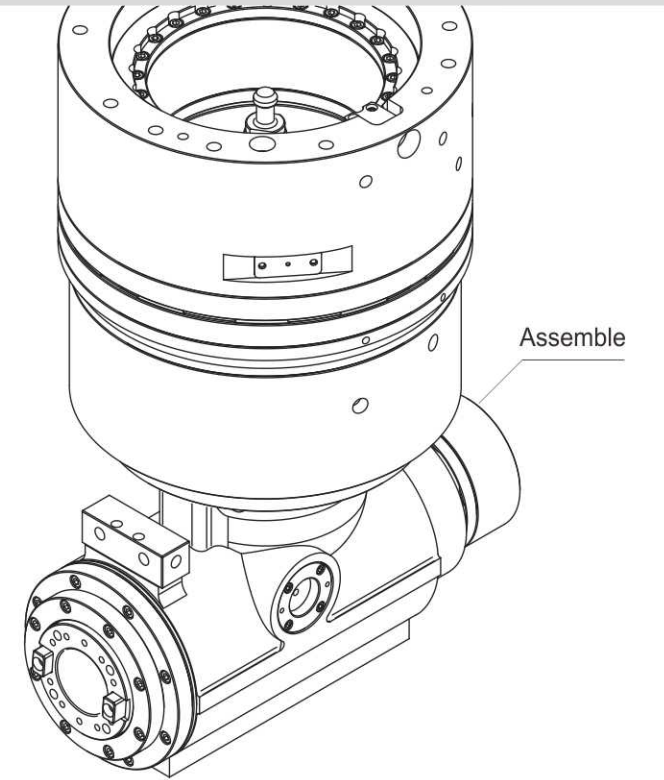


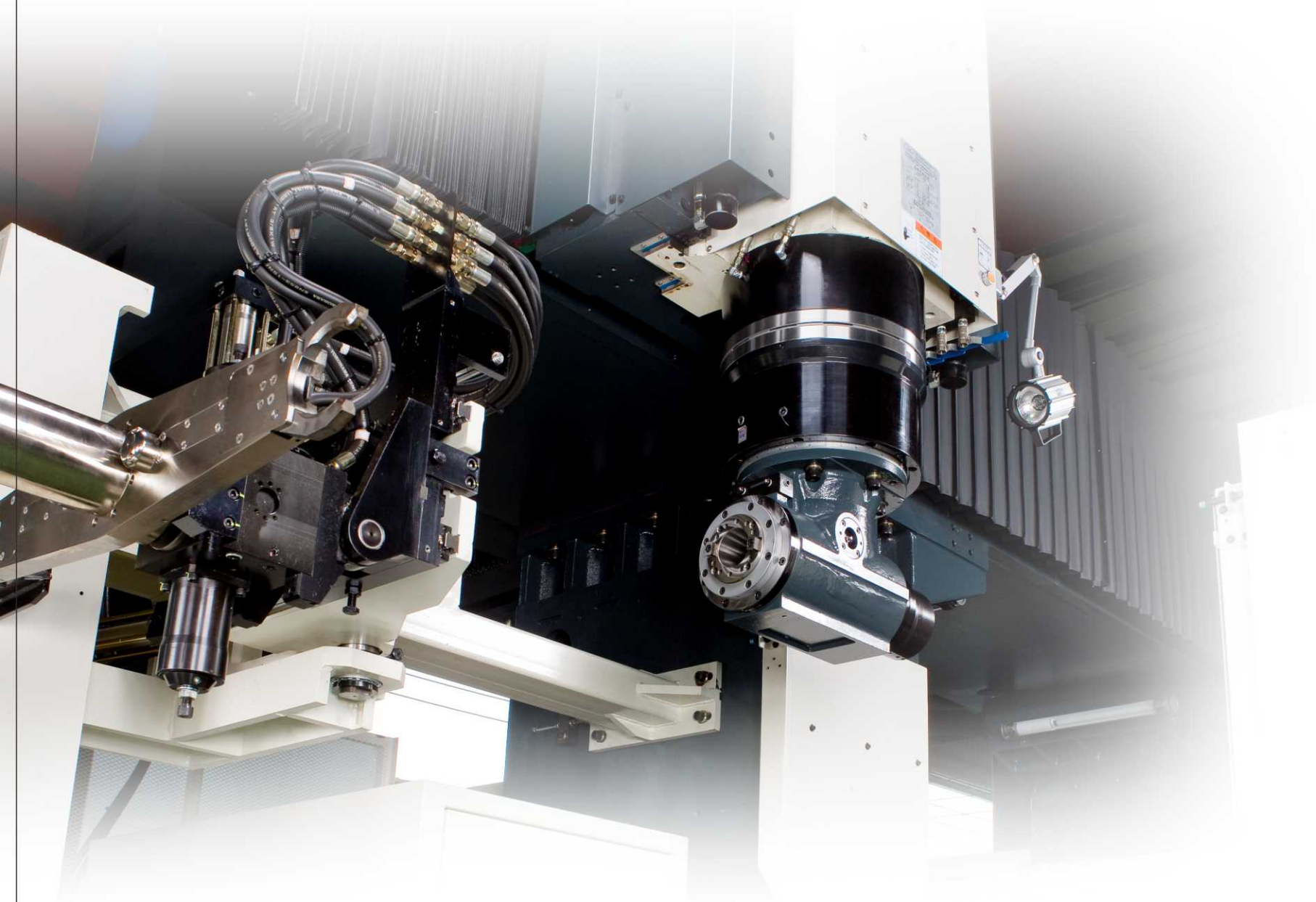
Maxmill Boosts Your Competitive Edge

Maxmill – Auto Exchange Head (5-face Machining Center)

- Precision gear-type clutch. Indexing accuracy ± 3 seconds, repeatability 1 second
- 3,500rpm spindle with horizontal head provides high cutting efficiency.
- The precision gear-type clutch of 280mm large external diameter features high rigidity. Such design provides stable angular position and deformation-free operation for heavy cutting tasks.
- The internal rotation face of the horizontal head is coated with PTFE material. Such design requires less rotation torque and extends sliding face lifetime.
- The horizontal head is equipped with large-sized clamping jaws. Larger contact faces feature well-dispersed stress and high parts stability.
- Obvious grease inlet can also be used as oil window for maintenance.
- Built-in oil and cutting coolant circuits enhance connection efficiency and features neat design in appearance.
- The horizontal spindle head incorporates tool clamping mechanism as one-piece structure, which saves space and time.
- A level surface at the exterior of the horizontal head is parallel to the spindle. This is a handy design for calibrations and accuracy inspection.

Multi-optional accessories for custom needs.

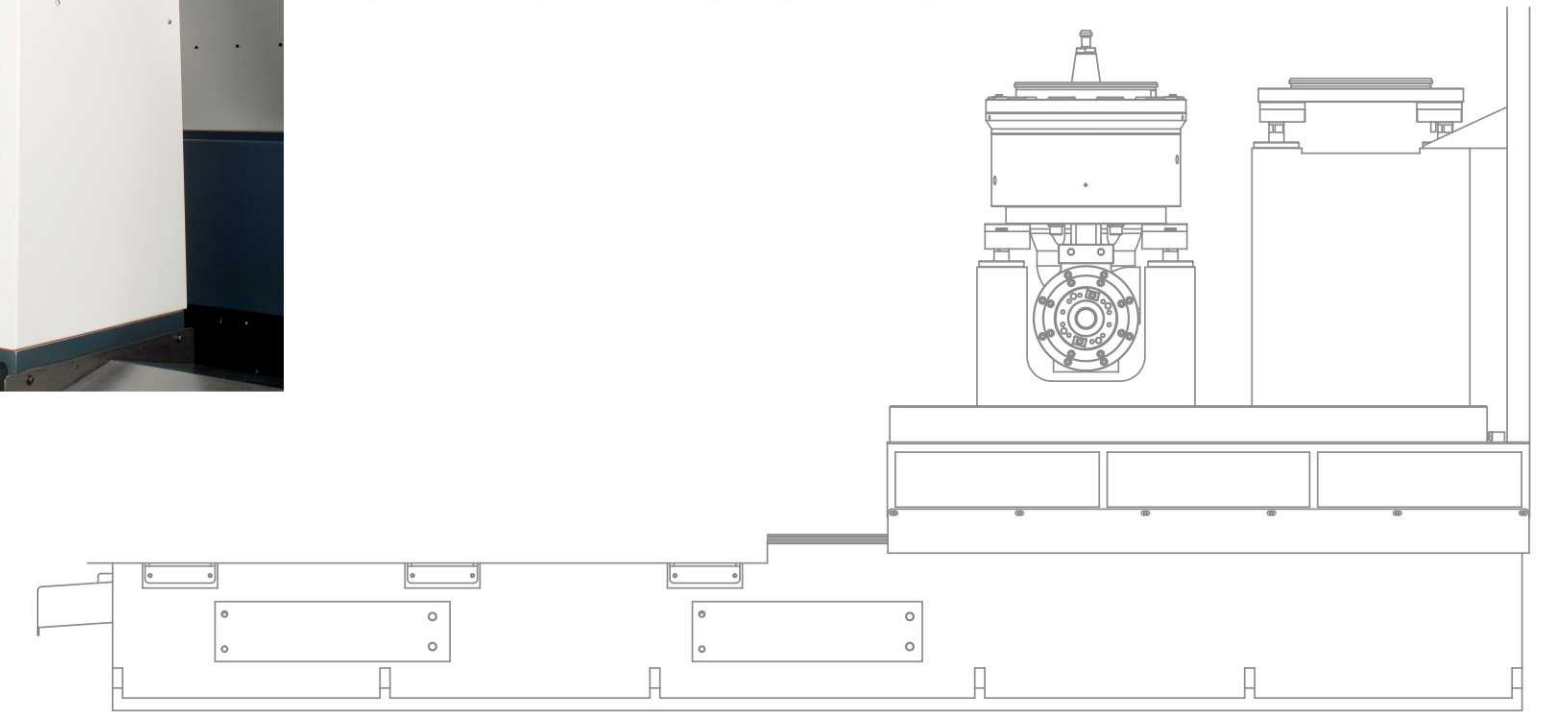




The Stock Case for the Attachment Head



The stock case can be flexibly designed and customized made.
A sophisticated design eliminates any unexpected damage to the attachment head.



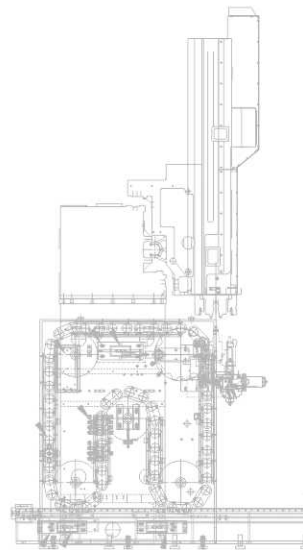
Maxmill - Tool Magazine (5-face Machining Center)

Item	Specifications			
	Tool Holder	ATC Arm	Solenoid Valve Voltage	Color
Arm-type Magazine #50 x 60T	BT-50	BT-50	DC24V	NA
	CAT-50	CAT-50	DC24V	NA
	DIN-50	DIN-50	DC24V	NA

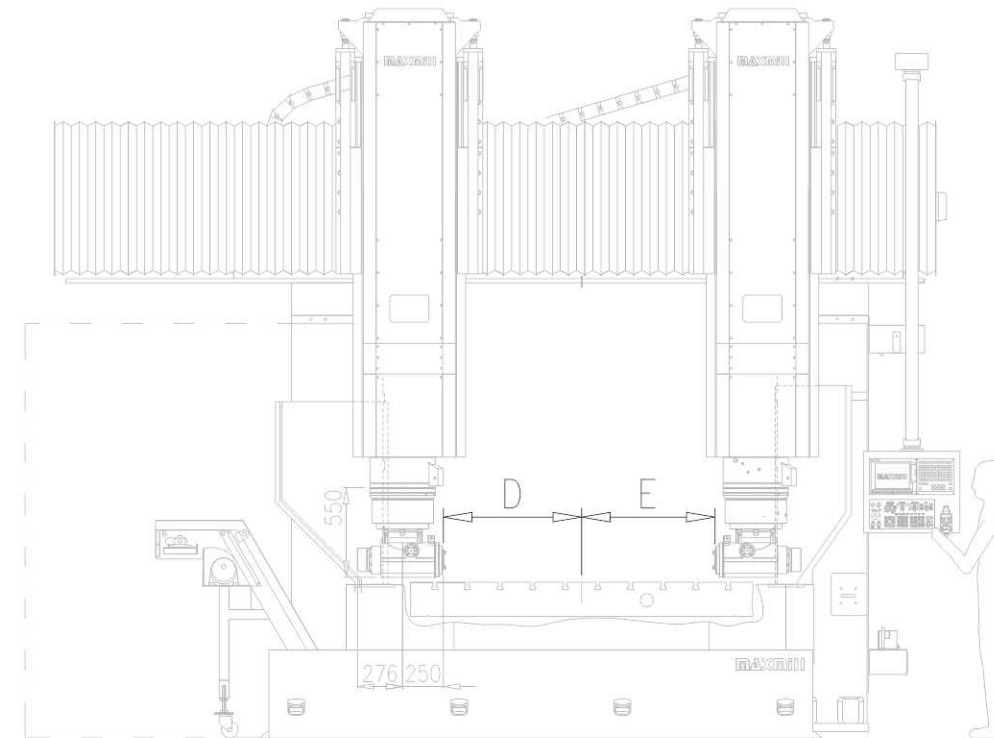


Accessories

- Vertical/Horizontal ATC
- Hydraulic motor
- Maximum tool length 400mm
- Tool weight imbalance 80kg
- Manual tool unclamping
- Foundation bolts
- Foot switch



SPARQ Series 5 Face Machine-Maximum Machining Space



SPARQ Series	Vertical Working Area			Horizontal Working Area				
	A	B	C	C	D	E	F	G
BMC-5F-3224	2,350(92.5)	3,200(126.0)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,050(41.3)	1,250(49.2)	2,700(106.3)	160 (6.3)
BMC-5F-3227	2,650(104.3)				1,200(47.2)	1,400(55.1)		
BMC-5F-3230	2,950(116.1)				1,350(53.1)	1,550(61.0)		
BMC-5F-3233	3,250(128.0)	4,200(165.4)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,500(59.1)	1,700(66.9)	3,700(145.7)	160 (6.3)
BMC-5F-4224	2,350(92.5)				1,050(41.3)	1,250(49.2)		
BMC-5F-4227	2,650(104.3)				1,200(47.2)	1,400(55.1)		
BMC-5F-4230	2,950(116.1)	5,200(204.7)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,350(53.1)	1,550(61.0)	4,700(185.0)	160 (6.3)
BMC-5F-4233	3,250(128.0)				1,500(59.1)	1,700(66.9)		
BMC-5F-5224	2,350(92.5)				1,050(41.3)	1,250(49.2)		
BMC-5F-5227	2,650(104.3)	6,200(244.1)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,200(47.2)	1,400(55.1)	5,700(224.4)	160 (6.3)
BMC-5F-5230	2,950(116.1)				1,350(53.1)	1,550(61.0)		
BMC-5F-5233	3,250(128.0)				1,500(59.1)	1,700(66.9)		
BMC-5F-6224	2,350(92.5)	6,200(244.1)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,050(41.3)	1,250(49.2)	5,700(224.4)	160 (6.3)
BMC-5F-6227	2,650(104.3)				1,200(47.2)	1,400(55.1)		
BMC-5F-6230	2,950(116.1)				1,350(53.1)	1,550(61.0)		
BMC-5F-6233	3,250(128.0)	6,200(244.1)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,500(59.1)	1,700(66.9)	5,700(224.4)	160 (6.3)
BMC-5F-6224	2,350(92.5)				1,050(41.3)	1,250(49.2)		
BMC-5F-6227	2,650(104.3)				1,200(47.2)	1,400(55.1)		
BMC-5F-6230	2,950(116.1)	6,200(244.1)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,350(53.1)	1,550(61.0)	5,700(224.4)	160 (6.3)
BMC-5F-6233	3,250(128.0)				1,500(59.1)	1,700(66.9)		
BMC-5F-6224	2,350(92.5)				1,050(41.3)	1,250(49.2)		
BMC-5F-6227	2,650(104.3)	6,200(244.1)	200~1,300 (7.9~51.2)	160~1,002 (6.3~39.4)	1,200(47.2)	1,400(55.1)	5,700(224.4)	160 (6.3)
BMC-5F-6230	2,950(116.1)				1,350(53.1)	1,550(61.0)		
BMC-5F-6233	3,250(128.0)				1,500(59.1)	1,700(66.9)		

NOTE:

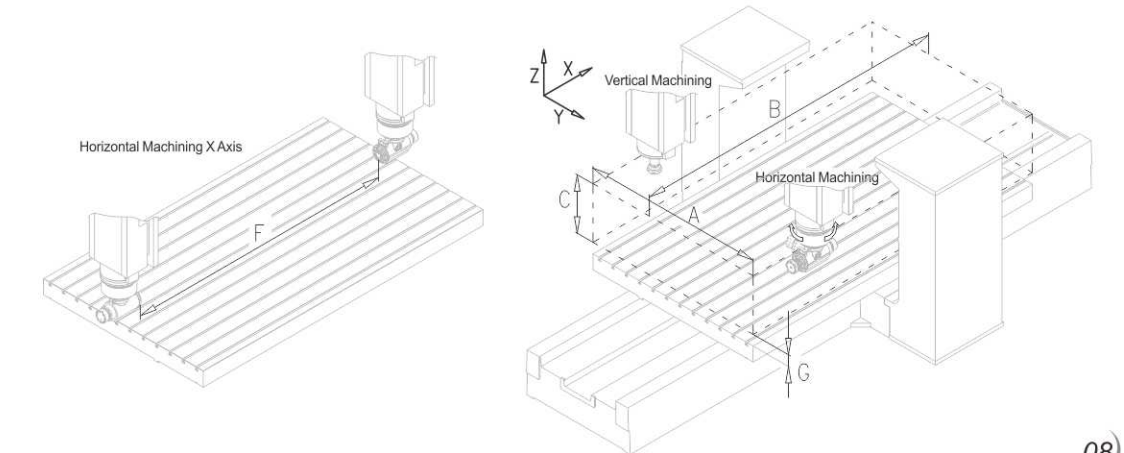
The working area will be changed according to the choice accessories different. The related matters concerned please contact the sales personal of Maxmill.

The heighten of vertical working area calculates by spindle nose to table. The working heighten will be reduced according to the using tool length.

D & E: Table center to spindle nose.

If inquiry tavel is big than D & E, please contact our sales person firstly.

Horizontal machining (for X axial): Working area is between both spindle noses.



Machine Specifications: (X,Y-axes: Linear Way ; Z-axis: Box Way)

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 axis	mm (inch)	3,200 (126.0)	4,200 (165.4)	5,200 (204.7)	6,200 (244.1)	3,200 (126.0)	4,200 (165.4)	5,200 (204.7)	6,200 (244.1)	3,200 (126.0)	4,200 (165.4)	5,200 (204.7)	6,200 (244.1)	3,200 (126.0)	4,200 (165.4)	5,200 (204.7)	6,200 (244.1)	
	Y axis	mm (inch)	2,700 (106.3)	2,700 (106.3)	2,700 (106.3)	2,700 (106.3)	3,000 (118.2)	3,000 (118.2)	3,000 (118.2)	3,000 (118.2)	3,300 (130.0)	3,300 (130.0)	3,300 (130.0)	3,300 (130.0)	3,600 (141.8)	3,600 (141.8)	3,600 (141.8)	3,600 (141.8)	
	Z axis	mm (inch)	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (43.3) opt.	920 (36.2) 1,100 (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)	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 (104.4)	2,650 (104.4)	2,650 (104.4)	2,650 (104.4)	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 (10 x 0.8 x 7.9)	10 x 22 x 200 (10 x 0.8 x 7.9)	10 x 22 x 200 (10 x 0.8 x 7.9)	10 x 22 x 200 (10 x 0.8 x 7.9)	12 x 22 x 200 (12 x 0.8 x 7.9)	12 x 22 x 200 (12 x 0.8 x 7.9)	12 x 22 x 200 (12 x 0.8 x 7.9)	12 x 22 x 200 (12 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 x 7.9)	14 x 22 x 200 (14 x 0.8 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		
	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		
	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		
	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		
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	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		
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.)		
	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		
	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)		
	Max. tool weight	kg	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)		
	Tool to tool (change time)	sec.	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 (0.0015)	P 0.05 (0.0020)	P 0.025 (0.0010)	P 0.03 (0.0012)	P 0.04 (0.0015)	P 0.05 (0.0020)	P 0.025 (0.0010)	P 0.03 (0.0012)	P 0.04 (0.0015)	P 0.05 (0.0020)	P 0.025 (0.0010)	P 0.03 (0.0012)		
	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)		
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		
	Power source required	KVA	50	50	50	50	50	50	50	50	50	50	50	50	50	50			
	Floor space	L	mm (inch)	8,470 (333.5)	10,470 (412.2)	12,470 (490.9)	14,470 (569.7)	8,470 (333.5)	10,470 (412.2)	12,470 (490.9)	14,470 (569.7)	8,470 (333.5)	10,470 (412.2)	12,470 (490.9)	14,470 (569.7)	8,470 (333.5)	10,470 (412.2)		
		W	mm (inch)	5,240 (206.3)	5,240 (206.3)	5,240 (206.3)	5,240 (206.3)	5,540 (218.2)	5,540 (218.2)	5,540 (218.2)	5,540 (218.2)	5,840 (230.0)	5,840 (230.0)	5,840 (230.0)	5,840 (230.0)	6,140 (241.8)	6,140 (241.8)		
		H	mm (inch)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)	4,600 (181.2)		
	Air source required	kg/cm ²	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				

* 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.

STANDARD ACCESSORIES:

- Fanuc 0i-MD controller
- Spindle 6,000 rpm (gear)
- Automatic lubricating system
- Automatic lubricating oil collector for 3 axes
- Spindle and gear transmission / temperature control
- Twin screw and one link chip conveyor with tank
- Foot switch for tool clamping / unclamping
- Heat exchanger for electric cabinet
- 32 tools arm-type tool change
- Spindle oil cooler
- Fully splash guard
- Air blow for chip (M code)
- X & Y linear guideway (roller type)
- Ball screw cooling system (X-axis)
- Foundation bolt kit
- Work light
- RS-232 interface (10 meters) / RJ45
- Oil skimmer
- Maintenance and operational manual
- Ladder for maintenance (5M, 6M only)
- Twin hydraulic counter weight cylinders
- Transformer

OPTIONAL ACCESSORIES:

- Controller (Heidenhain, Seimens, Mitsubishi)
- Direct Drive Spindle 8,000 / 10,000 rpm (for Linear Guide Way Only)
- 26kw spindle motor upgrade (Fanuc; 32XX series only)
- Z-axis travel up to 1,100 mm
- Heighten column by 200 mm
- ATC (40, 60 tools)
- X-axis Linear guide roller type (Schneeberger)
- Y-axis linear guide roller type (Schneeberger)
- Z-axis Linear guide way
- Ball screw cooling system (Y / Z axis)
- Ladder for maintenance (OPT. for 3M, 4M)
- 90° angular head
- Manual universal head
- Extended head with clamping / unclamping tool
- Coolant through spindle
- Linear scales Feedback (Heidenhain / Fagor)
- CNC rotary table & tail stock
- Auto Workpiece Measurement Device
- Auto tool length measurement