























Microcut Challenger Machining Center

F-Line	
Vertical Machining Center	 RH  MM-400  MM-430  MM-800  MM-1000
Box way 40 taper	
Vertical Machining Center	 VM-1000/40  VMC-1100/40  VMC-1300/40  VMC-1600F/40  VMC-1600/40
Box way 50 taper	
Vertical Machining Center	 VMC-1100/50  VMC-1300/50  VMC-1600F/50  VMC-1600/50
5-Axis	
Vertical Machining Center	 MCG-5X  MCG-5XM
HSM	
Vertical Machining Center	 V-20  V-26  V-30
Travel column	
Vertical Machining Center	 TC-1850  TC-2100  TC-3200  TC-4200  TC-5200
Bridge	
Vertical Machining Center	 TT-40
Large	
Vertical Machining Center	 VMC-2100  VMC-3100
HBM T-type	
Boring Machine	 HBM-5T  HBM-5TE  HBM-4T
HBM TABLE-type	
Boring Machine	 HBM-4

MM Series Linear Guide Way Machining Center



Photo shown MM-1000

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ISO 14001:2004
EMS 546518



ISO 9001:2008
FM 538421

MICROCUT VMC MEETS YOUR NEEDS

The MICROCUT compact series vertical machining center are designed with precision, high-speed and high performance functions. With all the latest technological advancements, capabilities and features loaded on the new MM series. The most valuable investment on MICROCUT MM Series High Value Machining Center.

FEATURES:

- Heavily ribbed cast iron components
- One piece base with internal rib design
- Heavy duty metal guarding with removable side doors
- Large fully ground working table
- Precision ground ball screw
- Linear way (ball type) and extremely high rapid traverse
- ISO40 spindle, 10000rpm spindle speed as standard; 12000rpm on request
- Six leveling bolts for stable machine level
- Various choices of Automatic Tool Changer pockets
- Telescopic way covers
- Automatic lubrication
- Coolant system with check valve
- Low voltage circuit control system
- Rigid tapping
- CE declaration of conformity for EU countries



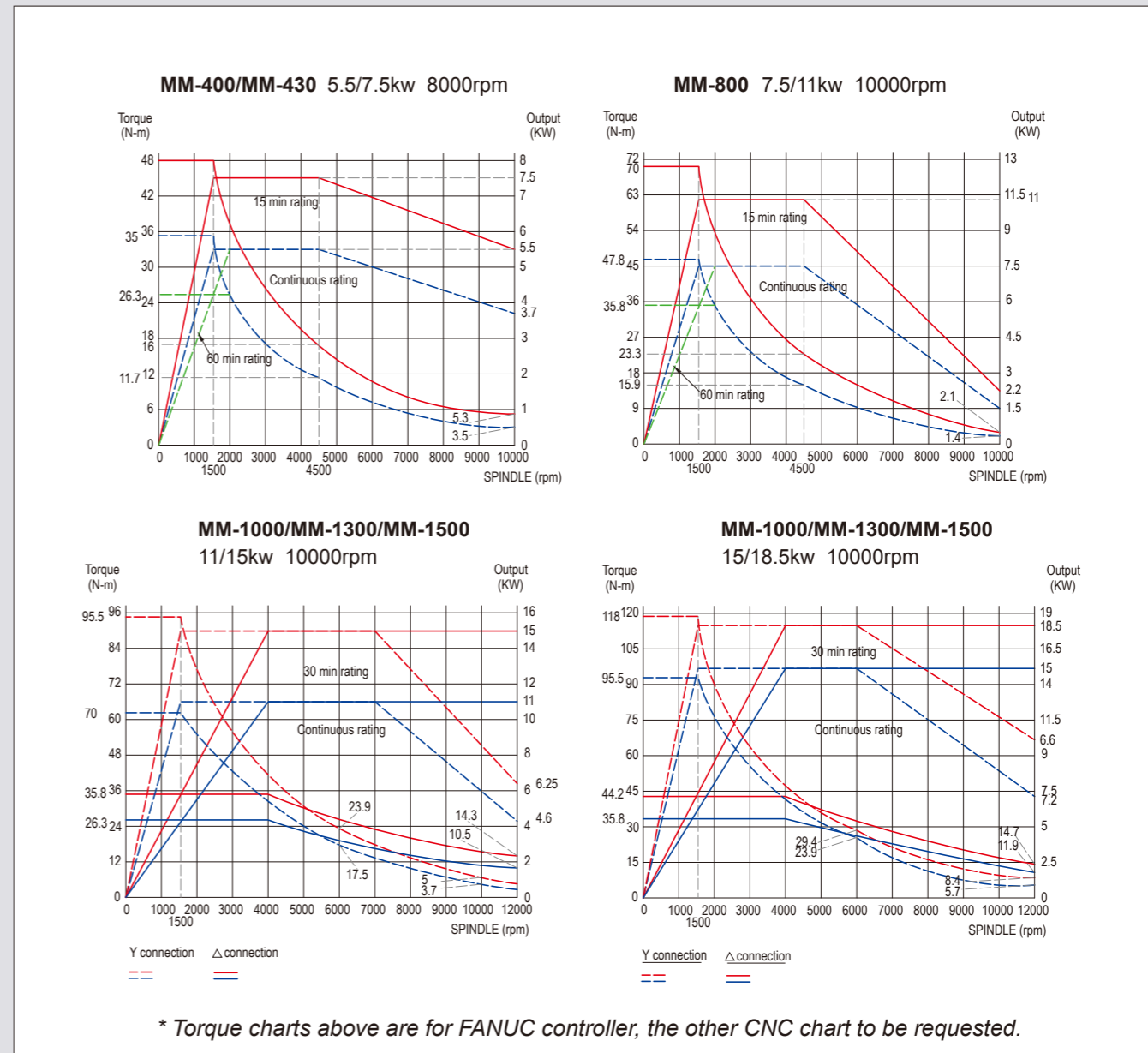
POWER SPINDLE

Belt Drive Spindle



- High speed
- High torque
- High removable Rate
- Easy maintenance

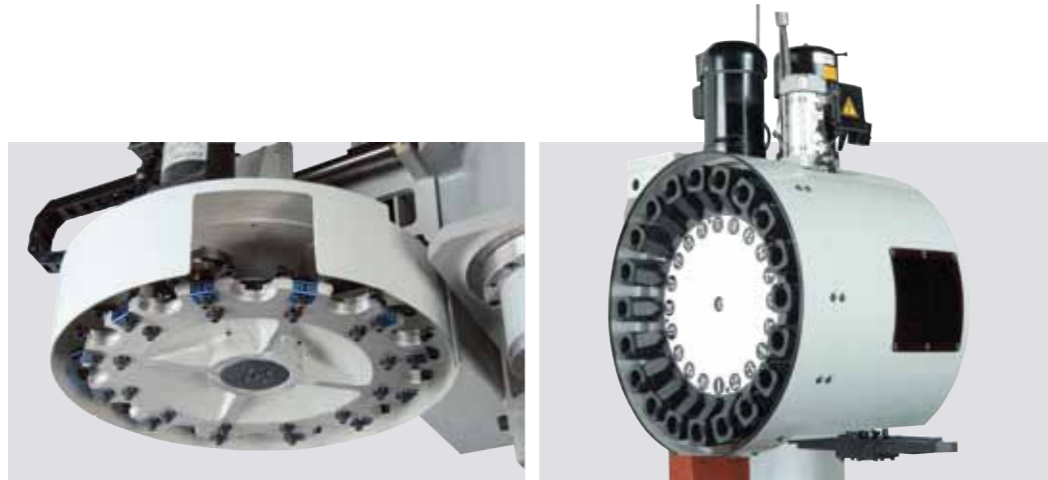
TORQUE CHART



ATC

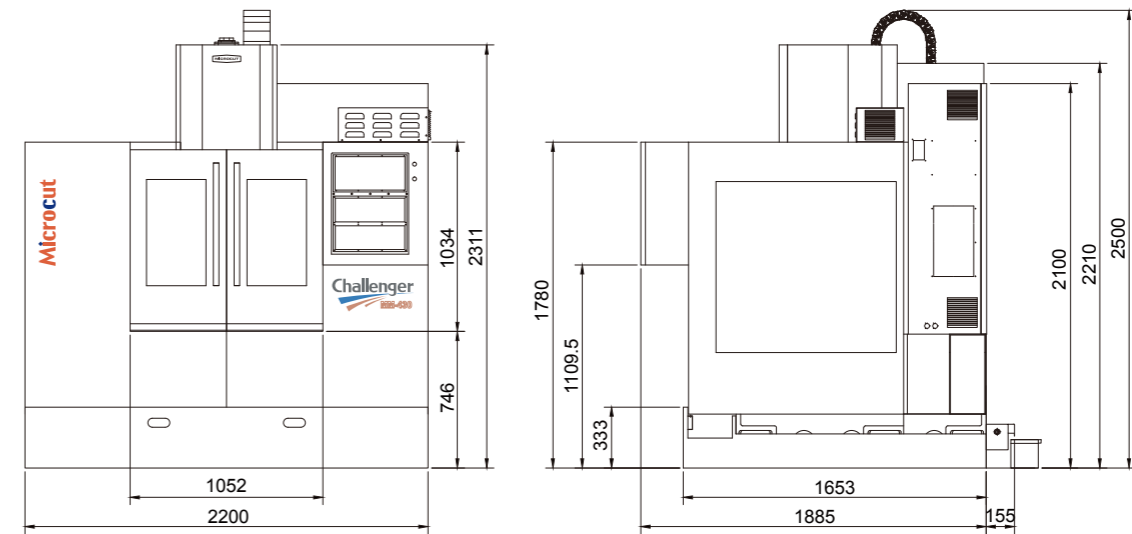
**The side mounted tool magazine capacity is up to 30 tools;
tool selection is bi-directional and takes the shortest random path.**

- The fast, simple and long-life automatic tool changer provides stable and reliable tool change
- 16 tools carousel type ATC or 24 tools arm type ATC for MM-400/430
- 20 tools carousel type or 24 tools arm type ATC for MM-800
- 20 tools carousel type or 24 or 30 tools arm type ATC for MM-1000/1300/1500

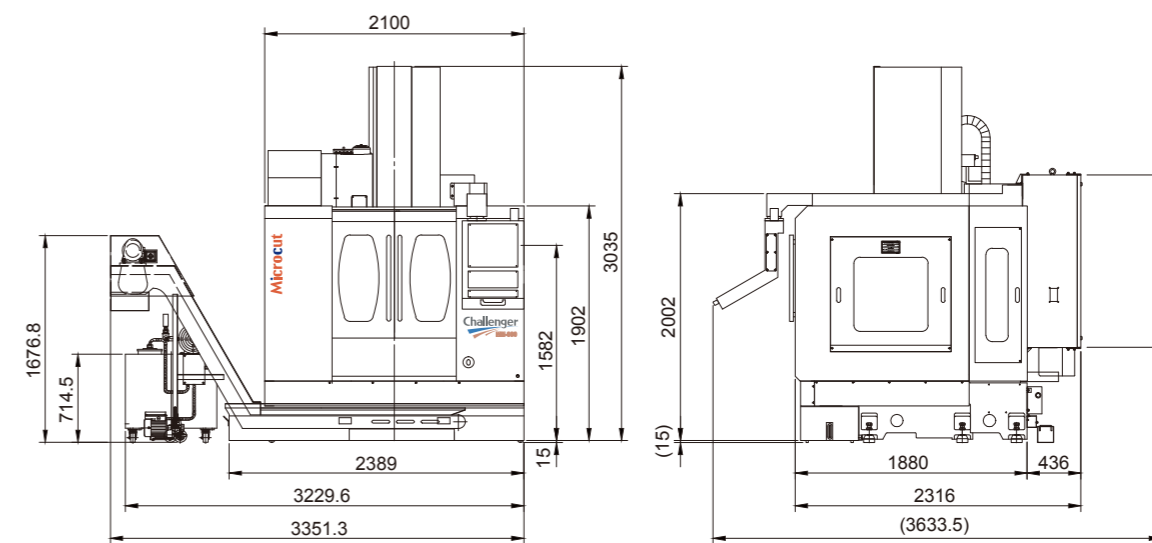


DIMENSIONS

MM-400 / MM-430



MM-800



(Chip conveyor is option)

The right control for scores of applications

The latest & greatest technology controller fit on MICRO CUT MM Series VMC, which is integrated to boost up even higher performance of machining capability.



Siemens 828D SL controller



Heidenhain TNC620



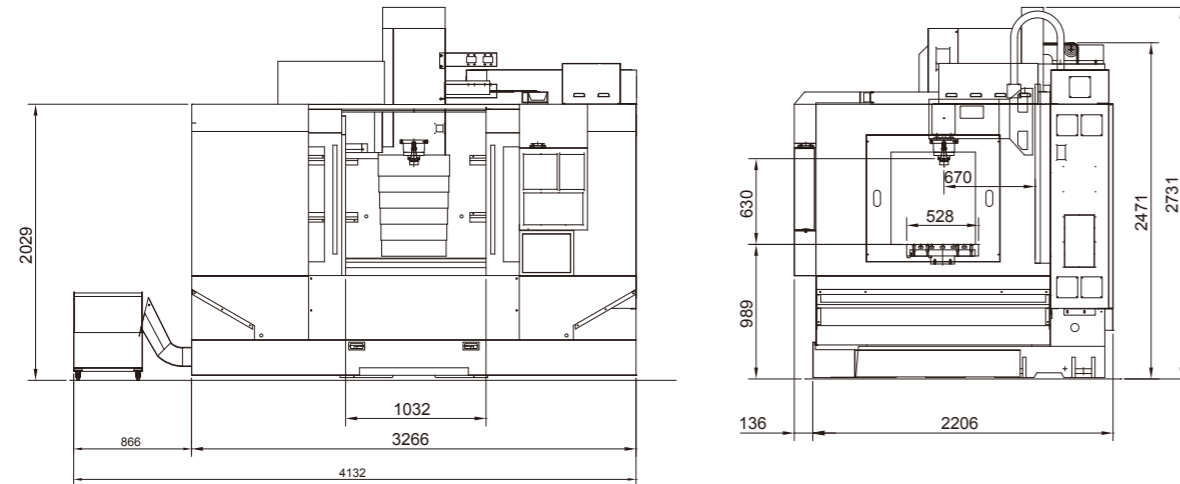
Fanuc 0iMD

- 8.4 / 10.4 LCD screen
- Fast data transfer
- Fast block processing
- Blocks look ahead
- Rigid tapping
- Helical interpolation
- Jerk control

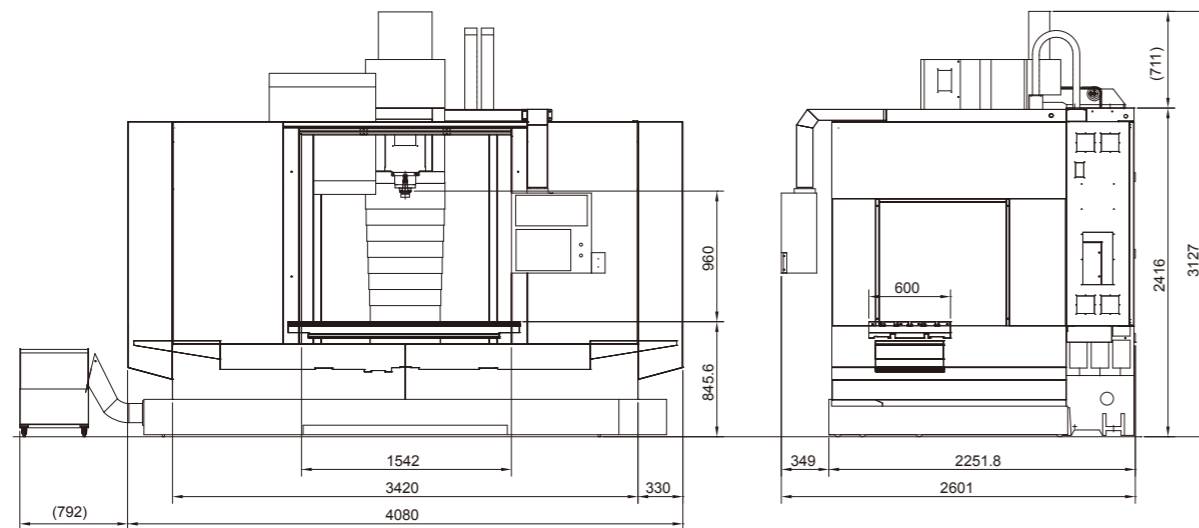
- program storage length
- pairs tool offset
- work pieces coordinate system
- Tool data table for easy tool position setup
- User-defined softkeys (Heidenhain)
- Reference-point

DIMENSIONS

MM-1000



MM-1300/1500



(Chip auger is option)

SPECIFICATION

	Unit	MM-400	MM-430	MM-800	MM-1000	MM-1300	MM-1500
Table							
Table size	mm	770x410	900x410	900x500	1200x528	1700x600	1700x600
Table height	mm	820	820	900	1000	830	830
T-slot(w/pitch/no)	mm	16x100x4	16x100x4	16x63x5	16x80x5	18x100x5	18x100x5
Max. table load	kg	250	350	450	800	1000	1000
Travel							
X axis	mm	450	760	800	1000	1300	1500
Y axis	mm	400	460	500	560	680	680
Z axis	mm	400	460	500	550	730	880
Spindle							
Spindle taper		ISO40	ISO40	ISO40	ISO40		
transmission		Belt	Belt	Belt	Belt		
Spindle speed	rpm	8000(std.) / 10000(opt.)	8000(std.) / 10000(opt.)	10000(std.) / 12000(opt.)	10000(std.) / 12000(opt.)		
Motor output	kw	5.5/7.5(Fagor)	5.5/7.5(Fagor)	7.5/11(Fanuc)	11/15(std.) / 15/18.5(opt.) (Fanuc)		
Spindle nose to table	mm	120~520	120~580	120~720	50~600	100~830	100~980
Axes feed rate							
Rapid feed X	m/min	24	24	30	30		
Rapid feed Y	m/min	24	24	30	30		
Rapid feed Z	m/min	24	24	24	24		
ATC system							
ATC type		Carousel(std.) / Arm(opt.)					
No. of tools		16(std.) / 24(opt.)		20(std.)/24(opt.)		20(std.) / 24(opt.) / 30(opt.)	
Max.tool diameter with next tool empty	mm	ø130 / ø150				ø130(20T / 24T) / ø125(30T)	
Max. tool length	mm	300 / 350		350 / 350		300	
Max. tool weight	kg	8					
Max. loading weight	kg	128 / 170		140 / 170		160(20T) / 192(24T) / 240(30T)	
Dimensions							
Length	mm	2200	2200	2200	3266	4080	4080
Width	mm	2050	2050	2520	2206	2252	2252
Height	mm	2500	2500	2730	2750	2675	2675
Weight	kg	3430 (full guard)	3630(full guard) / 2914(table guard)	4200	4760	6600	6600
Floor space	mm	2200x2050	2200x2050	2100x2485	4150x2970	4900x3200	4900x3200

Accessories

S = Standard O = Option N/A = Not available

Model	MM-400	MM-430	MM-800	MM-1000	MM-1300	MM-1500
Spindle & axes servo motor package	S	S	S	S	S	S
Auto. Lubrication	S	S	S	S	S	S
Coolant system	S	S	S	S	S	S
8000rpm spindle speed	S	S	N/A	N/A	N/A	N/A
10000rpm spindle speed	O	O	S	S	S	S
12000rpm spindle speed	O	O	O	O	O	O
15000rpm spindle speed	O	O	N/A	N/A	N/A	N/A
Spindle cooler	O	O	O	S	S	S
CTS system with high pressure 20/70 bar pump	O	O	O	O	O	O
Chip auger	O	O	O	O	O	O
Chip conveyor	O	O	O	O	O	O
Telescopic way covers	S	S	S	S	S	S
Rigid tapping	S	S	S	S	S	S
Work light	S	S	S	S	S	S
Heat exchanger	O	O	O	O	O	O
Air conditioner	O	O	O	O	O	O
Coolant gun	O	O	O	O	O	O
Oil skimmer	O	O	O	O	O	O
Wash down system	O	O	O	O	O	O
4th axis completed	O	O	O	O	O	O
Tool setting	O	O	O	O	O	O
Work piece probe	O	O	O	O	O	O
Linear scale for X/Y/Z axis	N/A	N/A	O	O	O	O