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NEW 2020-EN-M-B The text description, pictures and technical parameters in the sample are for reference only, and the changes due to technological development are subject to change without notice.

CNC MACHINE TOOLS FOR MOLD INDUSTRIES SOLUTIONS

HIGH SPEED | HIGH EFFICIENCY | HIGH ACCURACY

VMC II-CFV / GUe / MOUS II-MOUP / GRUe II-GNUe

HISION



VMC II series



CFV series



GUE series



MOUS II series
MOUP series



High-Speed Vertical Machining Center

VMC II / CFV

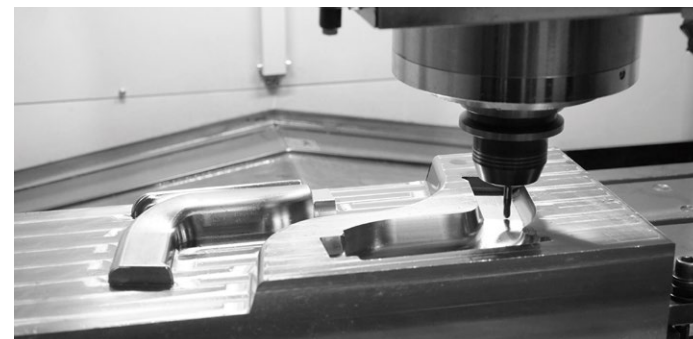
Vertical machining center used high-strength cast iron material, long-span bed base and column, which provide a solid foundation and stable performance for the machining performance of machine tools. With high-speed spindle and high-speed feed system, guaranteeing machine efficiency and stability.



Double Column Machining Center

GUE

On the basis of inheriting the double column structure and market demand, the product has newly introduced with boxway ram structure, which further expands the advantages of the double column vertical machining center and the traditional machining center, bringing a new experience to customers.

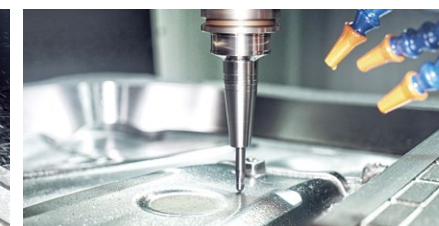
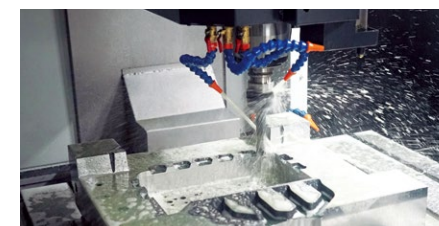


Fixed Crossrail High-speed Double Column Machining Center

MOUS II / MOUP

The high-speed series adopts Hison's patented technology to combine high-end technology such as high dynamic response, ergonomics, energy saving and environmental protection to present a perfect high-speed cutting experience for users.

The product is suitable for processing in high hardness materials, non-ferrous metals, plastics and other fields. Widely used in high-end manufacturing industries such as mold, aerospace, rail transportation, automobiles, house appliances, and medical.





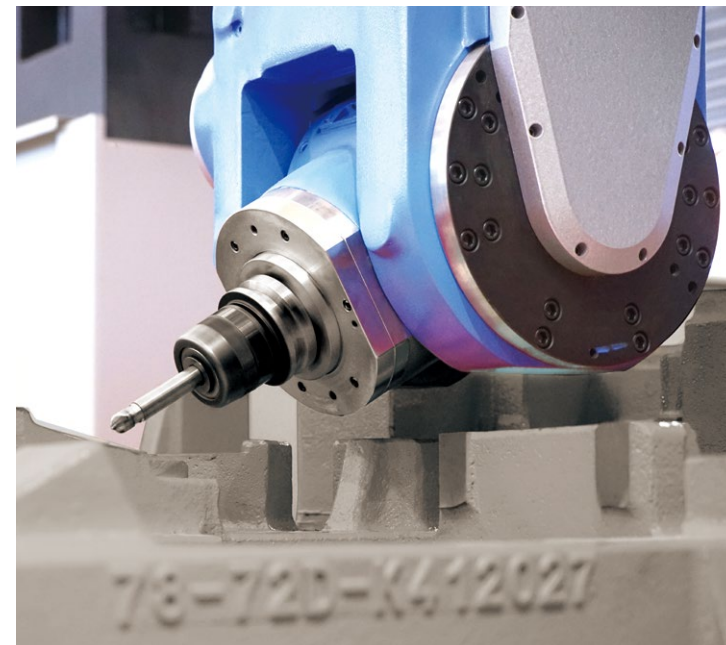
GRUe II series
GNUe series



Fixed Crossrail Double Column
Machining Center

GRUe II / GNUe

The GRUe II / GNUe fixed crossrail double column machining center inherits the high rigidity structure. The three-axis adopts linear guide structure, large-sized ram section, equipped with advanced high-torque built-in spindle, automatic milling head option, which makes processing more efficient, and environmentally friendly and energy-saving. Used in stamping die molds.



VMC II

Items	Unit	VMC760 II		VMC850 II		VMC1000 II	
» Machining Capacity							
X travel	mm	760		850		1000	
Y travel	mm	400		500		600	
Z travel	mm	500		500		600	
Spindle nose to table surface	mm	150-650		150-650		150-750	
» Table							
Table size	mm	900×400		1000×500		1200×600	
Table load	t	0.3		0.6		0.8	
T slot	mm	18×125×3		18×80×5		18×100×5	
» Feed Rate							
Rapid traverse(X/Y/Z)	m/min	36/36/36		36/36/36		36/36/36	
Cutting feedrate(X/Y/Z)	m/min	15/15/15		15/15/15		15/15/15	
» Spindle							
Drive type		Direct Drive		Direct Drive		Direct Drive	
Spindle speed	rpm	12,000		12,000		12,000	
Spindle power	kW	7.5/11	7.5/11	11/15		11/15	
Spindle torque	Nm	47.7/70	35.8/70	52.5/95.5		52.5/95.5	
Spindle taper		BT40		BT40		BT40	
Pull stud		MAS-P40T-I (45°)		MAS-P40T-I (45°)		MAS-P40T-I (45°)	
» Tool Magazine							
Tool magazine capacity	T	24		24		24	
Tool magazine type		Arm type		Arm type		Arm type	
Max.tool dia (Adjacent vacant)	mm	Φ78 (Φ150)		Φ78 (Φ150)		Φ78 (Φ150)	
Max.tool length	mm	300		300		300	
Max.tool weight	kg	7		7		7	
Tool change time (T-T)	s	2.5		2.5		2.5	
» Other							
Power capacity	kVA	25		25		25	
Controller		Mitsubishi 80A	Fanuc Oi	Mitsubishi 80A	Fanuc Oi	Mitsubishi 80A	Fanuc Oi
Machine weight	t	5.5		6		6.5	
Machine size(L×W×H)	cm	230×325×255		250×340×255		280×355×265	

CFV

Items	Unit	CFV600	CFV900	CFV1100
» Machining Capacity				
X travel	mm	600	900	1100
Y travel	mm	430	430	540
Z travel	mm	510	510	520
Spindle nose to table surface	mm	150-660	150-660	150-670
» Table				
Table size	mm	900×430	1100×430	1300×550
Table load	t	0.5	0.7	1.2
T slot	mm	18×125×3	18×125×3	18×100×5
» Feed Rate				
Rapid traverse(X/Y/Z)	m/min	36/36/36	36/36/36	36/36/36
Cutting feedrate(X/Y/Z)	m/min	20/20/20	20/20/20	20/20/20
» Spindle				
Drive type		Built-in Spindle		Built-in Spindle
Spindle speed	rpm	12,000		12,000
Spindle power	kW	7.5/11	10/22	7.5/11
Spindle torque	Nm	71.6/105	63.7/118	71.6/105
Spindle taper		BT40		BT40
Pull stud		MAS-P40T-1 (45°)		MAS-P40T-1 (45°)
» Tool Magazine				
Tool magazine capacity	T	24	24	24
Tool magazine type		Servo arm type		Servo arm type
Max.tool dia (Adjacent vacant)	mm	Φ80 (Φ125)		Φ80 (Φ125)
Max.tool length	mm	300	300	300
Max.tool weight	kg	7	7	7
Tool change time (T-T)	s	1.5	1.5	1.5
» Other				
Power capacity	kVA	35	35	35
Controller		Mitsubishi 80A	Fanuc Oi	Mitsubishi 80A
Machine weight	t	6	7	8
Machine size(L×W×H)	cm	206×240×266	260×242×258	290×289×268

GUe

Items	Unit	GUe5	GUe6
» Machining Capacity			
X travel	mm	1500	1500
Y travel	mm	700	850
Z travel	mm	700	700
Distance between columns	mm	1580	1580
Spindle nose to table surface	mm	150-850	150-850
» Table			
Table size	mm	1400×700	1500×850
Table load	t	2	3
T slot	mm	18×150×3	18×160×5
» Feed Rate			
Rapid traverse(X/Y/Z)	m/min	24/24/15	24/24/15
Cutting feedrate(X/Y/Z)	m/min	20/20/10	20/20/10
» Spindle			
Drive type		Built-in Spindle	
Spindle speed	rpm	8,000	
Spindle power	kW	15/30 (low speed) 22/30 (high speed)	18.5/22(low speed) 26/30(high speed)
Spindle torque	Nm	319/774(low speed) 233/318(high speed)	305/623(low speed) 99.3/153(high speed)
Spindle taper		BT50	
Pull stud		MAS403-P50T-II (60°)	
» Tool Magazine (option)			
Tool magazine capacity	T	24	24
Tool magazine type		Arm type	
Max.tool dia(Adjacent vacant)	mm	Φ110(Φ200)	
Max.tool length	mm	300	300
Max.tool weight	kg	20	20
» Other			
Power capacity	kVA	65	65
Controller	-	Mitsubishi M80A	Fanuc Oi
Machine weight	t	13	13.7
Machine size(L×W×H)	cm	440×335×420	440×335×420

MOUS II

Items	Unit	MOUS13 IIx8	MOUS13 IIx16	MOUS13 IIx21	MOUS16 IIx20	MOUS16 IIx25
» Machining Capacity						
X travel	mm	1300	1600	2000	2000	2500
Y travel	mm	800	1300	1300	1500	1500
Z travel	mm	700	700	700	800	800
Distance between columns	mm	1380	1380	1380	1580	1580
Spindle nose to table surface	mm	150-850	150-850	150-850	200-1000	200-1000
» Table						
Table size	mm	1300x850	1300x1800	1300x2200	1500x2000	1500x2500
Max. table loading	t	1.5	4	5	6	8
T slot size		22x160x5	22x160x8	22x160x8	22x160x9	22x160x9
» Feed rate						
Cutting feedrate (X/Y/Z)	m/min	20/20/20	20/20/20	16/20/20	16/20/20	16/20/20
Rapid traverse (X/Y/Z)	m/min	20/24/24	20/24/24	18/24/24	18/24/24	18/24/24
» Spindle						
Drive type		Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle
Spindle speed	rpm	12000	12000	12000	12000	12000
Spindle power (S1/S6)	Low speed	kW	15/18.5	15/18.5	15/18.5	15/18.5
	High speed		18.5/22	18.5/22	18.5/22	18.5/22
Spindle torque (S1/S6)	Low speed	N.m	95.5/167	95.5/167	95.5/167	95.5/167
	High speed		50.5/81.7	50.5/81.7	50.5/81.7	50.5/81.7
Spindle taper		BT40	BT40	BT40	BT40	BT40
Ram section	mm	350x350	350x350	350x350	350x350	350x350
» Tool magazine(Optional)						
Tool magazine capacity	T	16/24	16/24	16/24	16/24	16/24
Tool shank type		BT40	BT40	BT40	BT40	BT40
Max.tool dia(Adjacent Vacant)	mm	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)
Max. tool length	mm	300	300	300	300	300
Max. tool weight	kg	8	8	8	8	8
» Other						
Power capacity	kVA	65	65	65	65	65
Controller		Mitsubishi M830	Mitsubishi M80A	Mitsubishi M80A	Mitsubishi M80A	Mitsubishi M80A
Machine weight	t	12.5	16.5	19.5	20	23
Machine size(L×W×H)	cm	360x355x420	560x388x420	690x388x420	741x400x435	777x400x435

MOUP

Items	Unit	MOUP13X16	MOUP13X21	MOUP16X20	MOUP16X25	MOUP16X30
» Machining Capacity						
X travel	mm	1600	2000	2000	2500	3100
Y travel	mm	1300	1300	1500	1500	1500
Z travel	mm	700	700	800	800	800
Distance between columns	mm	1380	1380	1580	1580	1580
Spindle nose to table surface	mm	150-850	150-850	200-1000	200-1000	200-1000
» Table						
Table size	mm	1300x1800	1300x2200	1500x2000	1500x2500	1500x3000
Max. table loading	t	4	5	6	8	10
T slot size		22x160x8	22x160x8	22x160x9	22x160x9	22x160x9
» Feed rate						
Cutting feedrate (X/Y/Z)	m/min	20/20/20	16/20/20	16/20/20	16/20/20	16/20/20
Rapid traverse (X/Y/Z)	m/min	20/24/24	18/24/24	18/24/24	18/24/24	18/24/24
» Spindle						
Drive type		Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle
Spindle speed	rpm	20000	20000	20000	20000	20000
Spindle power(S1/S6)	kW	25/35	25/35	25/35	25/35	25/35
Spindle torque(S1/S6)	N.m	87/130	87/130	87/130	87/130	87/130
Spindle taper		HSK-A63	HSK-A63	HSK-A63	HSK-A63	HSK-A63
Ram section	mm	350x350	350x350	350x350	350x350	350x350
» Tool magazine(Optional)						
Tool magazine capacity	T	20/24	20/24	20/24	20/24	20/24
Tool shank type		HSK-A63	HSK-A63	HSK-A63	HSK-A63	HSK-A63
Max.tool dia(Adjacent Vacant)	mm	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)	Φ35(Φ66)
Max. tool length	mm	300	300	300	300	300
Max. tool weight	kg	8	8	8	8	8
» Other						
Power capacity	kVA	65	65	65	65	65
Controller		HEIDENHAIN TNC640	HEIDENHAIN TNC640	HEIDENHAIN TNC640	HEIDENHAIN TNC640	HEIDENHAIN TNC640
Machine weight	t	16.5	19.5	20	23	26.5
Machine size(L×W×H)	cm	560x388x420	690x388x420	741x400x421	777x400x421	941x400x435

GRUe II / GNUe

Items	Unit	GRUe28 II x40	GRUe28 II x50	GNUe32x40	GNUe32x50
» Machining Capacity					
X travel	mm	4200	5500	4200	5500
Y travel	mm	2700	2700	3200	3200
Z travel	mm	1000	1000	1250	1250
Distance between columns	mm	2800	2800	3200	3200
Spindle nose to table surface	mm	250-1250	250-1250	150-1400	150-1400
» Table					
Table size	mm	2000x4000	2000x5000	2500x4000	2500x5000
Max. table loading	t	18	22	20	25
T slot size		22x200x9	22x200x9	28x200x12	28x200x12
» Feed rate					
Cutting feedrate (X/Y/Z)	m/min	10/10/10	10/10/10	10/10/10	10/10/10
Rapid traverse (X/Y/Z)	m/min	12/15/15	10/15/15	12/15/15	10/15/15
» Spindle					
Drive type		Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle
Spindle speed	rpm	50-6000	50-6000	50-6000	50-6000
Spindle power	kW	22/25	22/25	22/25	22/25
Spindle torque	N.m	505/600	505/600	505/600	505/600
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	420x430	420x430	420x430	420x430
» Tool magazine(Optional)					
Tool magazine capacity	T	24/40	24/40	24/40	24/40
Tool shank type		BT50	BT50	BT50	BT50
Max.tool dia(Adjacent Vacant)	mm	Φ110(Φ220)	Φ110(Φ220)	Φ110(Φ220)	Φ110(Φ220)
Max. tool length	mm	300	300	400	400
Max. tool weight	kg	20	20	25	25
» Other					
Power capacity	kVA	55	55	65	65
Controller		Fanuc 0i	Fanuc 0i	Fanuc 0i	Fanuc 0i
Machine weight	t	48	53	65	70
Machine size(L×W×H)	cm	1250x530x560	1500x530x560	1250x570x715	1500x570x715

Machine Configurations & Options

"●"/▲"Standard, "○"Option, "※" unavailable

Items	VMC II		CFV		Gue		MOUS II	MOUP	GRUe II	GNUe
	MITSUBISHI	FANUC	MITSUBISHI	FANUC	MITSUBISHI	FANUC	MITSUBISHI	HEIDENHAIN TNC640	FANUC	FANUC
» Controller										
MISTUBISHI M830	※	※	※	※	※	※	※	※	※	※
MISTUBISHI M80A	▲	※	●	※	▲	※	●	※	※	※
FANUC 0i-PLUS(type3&AICC II &Max.pre-reading blocks 200)	※	▲	※	※	※	▲	※	※	※	※
FANUC 0i-PLUS(type1&AICC II &Max.pre-reading blocks 200)	※	○	※	▲	※	※	○	※	●	●
FANUC 31i	※	※	※	※	※	※	※	※	○	○
SIEMENS 828DSL	※	※	※	※	※	※	○	※	※	※
HEIDENHAIN TNC640	※	※	※	※	※	※	※	▲	※	※
» Spindle										
6000rpm built-in spindle(Hision&BT50)	※	※	※	※	※	※	※	※	●	●
8000rpm built-in spindle(Hision&BT50)	※	※	※	※	▲	▲	※	※	※	※
12000rpm direct spindle(BT40)	▲	▲	※	※	※	※	※	※	※	※
12000rpm built-in spindle(Hision&BT40)	※	※	●	●	※	※	●	※	※	※
20000rpm built-in spindle(Kessler&HSK-A63)	※	※	○	○	※	※	○	●	※	※
24000rpm built-in spindle(Kessler&HSK-A63)	※	※	※	※	※	※	○	○	※	※
Spindle oil chiller	▲	▲	●	●	●	●	●	●	●	●
» Protection										
Basic splash guard	※	※	※	※	※	※	※	※	●	●
Full enclosure without top cover	※	※	※	※	●	●	●	※	○	○
Full enclosure with top cover	●	●	●	●	○	○	○	●	○	※
» Function										
SSS mould function/High speed,high accuracy processing software function/Pure optimal processing function	▲	▲	●	▲	▲	▲	●	●	●	●
Tool setter	○	○	○	○	○	○	○	○	○	○
Workpiece probe	○	○	○	○	○	○	○	○	○	○
Tool life management	●	●	●	●	●	●	●	●	●	●
Ethernet function	●	●	●	●	●	●	●	●	●	●
2D/3D Dynamic simulation function	●	●	●	●	●	●	●	●	●	●
Auto power off function	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Lifting function against gravity at power failure	●	●	●	●	●	●	●	▲	●	●
Original SD card 8G (Only for MITSUBISHI)	●	※	●	※	●	※	●	※	※	※
Memory program capacity 2M (Only for FANUC)	※	●	※	●	※	●	※	※	●	●
Solid state disk 21G (Only for HEIDENHAIN)	※	※	※	※	※	※	※	●	※	※
Data-server(only for FANUC 0i)	※	○	※	○	※	○	○	※	○	○
Max.pre-reading blocks 400(only for FANUC 0i)	※	○	※	○	※	○	○	※	○	○
» Coolant										
Cutting cooling(two water & one air)	●	●	●	●	●	●	●	●	●	●
Coolant through spindle	※	※	○	○	○	○	○	○	○	○
Cutting oil mist cooling	※	※	※	※	※	※	○	○	※	※
Spindle ring spray	○	○	○	○	○	○	○	○	○	○
» Conditioner										
Air conditioner	○	○	○	○	○	○	○	○	○	○
Heat exchanger	○	○	○	○	○	○	○	○	○	○
» Chip removal										
Air gun	●	●	▲	▲	▲	▲	▲	▲	▲	▲
Water gun	▲	▲	●	●	▲	▲	▲	▲	▲	▲
Internal dual-chip augers	●	●	▲	▲	●	●	●	●	●	●
External chain type chip conveyor and trolley	▲	▲	○	○	●	●	●	●	●	●
Oil skimmer	○	○	○	○	○	○	○	○	○	○
Oil mist collector	○	○	○	○	○	○	○	○	○	○
» Tool magazine										
24T arm ATC(BT40)	●	●	※	※	※	※	※	※	※	※
24T servo arm ATC(BT40)	※	※	●	●	※	※	※	※	※	※
24T arm ATC(BT50)	※	※	※	※	○	○	※	※	※	※
16/24T armless ATC(BT40)	※	※	※	※	※	※	○	※	※	※
16/24T armless ATC(HSK-63)	※	※	※	※	※	※	○	※	※	※
20/24T armless ATC(HSK-63)	※	※	※	※	※	※	※	○	※	※
24/40T arm ATC(BT50)	※	※	※	※	※	※	※	※	○	○
40T Vertical & Horizontal ATC(BT50)	※	※	※	※	※	※	※	※	○	○
ATC protection door	○	○	●	●	※	※	※	※	※	※
» Others										
CNC rotary table(4th-axis)	○	○	○	○	○	○	○	○	○	○
Manual milling heads	※	※	※	※	○	○	※	※	○	○
Auto milling heads	※	※	※	※	※	※	※	※	○	○
2 station auto heads storing shelf	※	※	※	※	※	※	※	※	○	○
Pneumatic, hydraulic, lubrication system	●	●	●	●	●	●	●	●	●	●
3-color signal lamp, working light	●	●	●	●	●	●	●	●	●	●
Standard accessories	●	●	●	●	●	●	●	●	●	●
Linear scale(X/Y/Z)	※	※	※	※	○	○	○	●	○	○

"Note: Above specifications may vary depending on the machine and the surrounding environment. The manufacturer reserves the right to modify the design, specifications, mechanisms, etc., to improve the performance of the machine without notice. The test data provided in this catalog is performed under specific test procedures and environmental conditions."