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DOUBLE COLUMN MACHINING CENTER

GLU(e)II PLUS / GLU (e) / GRU / GNU / GNUM / KMU



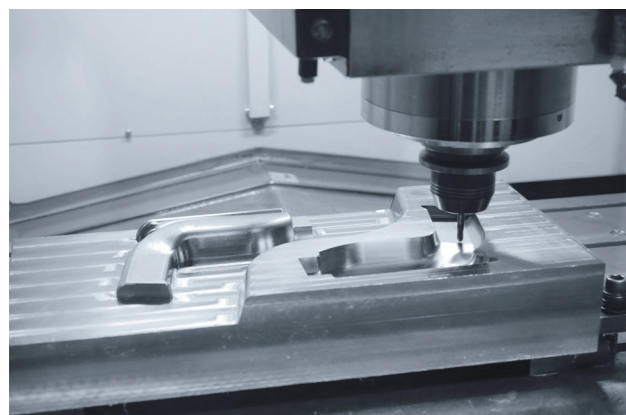
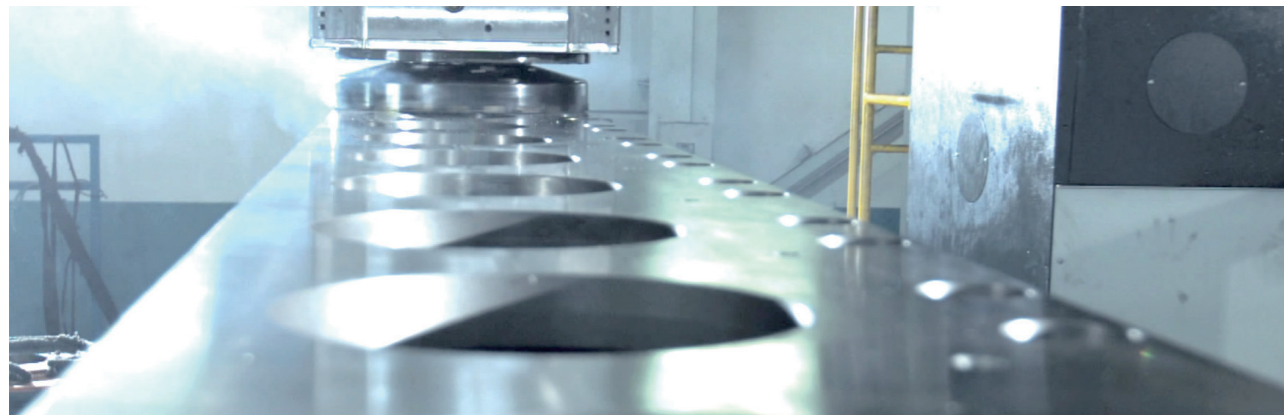
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PRODUCT INTRODUCTION

With the growth of customer demand, we are committed to the development of various gantry structure models. Including fixed beam, movable beam, movable column, movable column, movable beam and other structural gantry models. It has brought rich economic benefits to customers for a long time and has been praised by customers.

Haitian Precision relies on the advanced production management concept of Haitian Group to fully implement the turnkey project and perfect pre-sale, sales and after-sales services, so that customers can obtain more excellent product energy efficiency and create the product value you want.

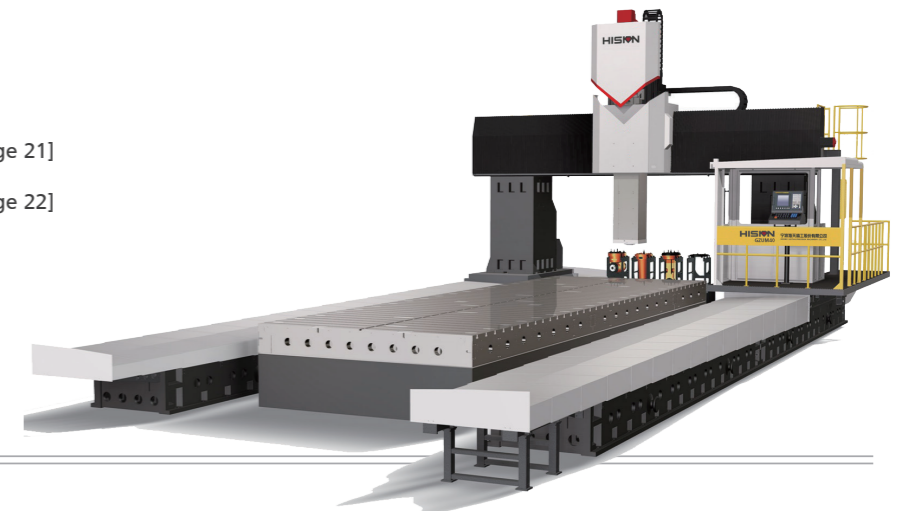


DOUBLE COLUMN MACHINING CENTER

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GLU(e)II PLUS-GRUII-GNU

Inheriting the structural characteristics of strong rigidity and wide processing range of traditional gantry products, integrating advanced technical elements, and pursuing the development concept of high efficiency, high precision, and energy saving. Create new generation of U series gantry machining center. Widely used in mold, rail transportation, automotive, house appliances, medical and other high-end manufacturing industries.

• **GLU II Plus Series**

GLU II series adopt full gear transmission and special Z-axis boxway layout technology (Haitian precision company patented technology) to achieve the perfect integration of strength and high-precision processing.

• **GLUe Plus Series**

GLUe series adopt the structure of built-in spindle with the heavy cutting ability, which brings customers the processing experience of high torque, high speed and low vibration.

• **GLU Series**

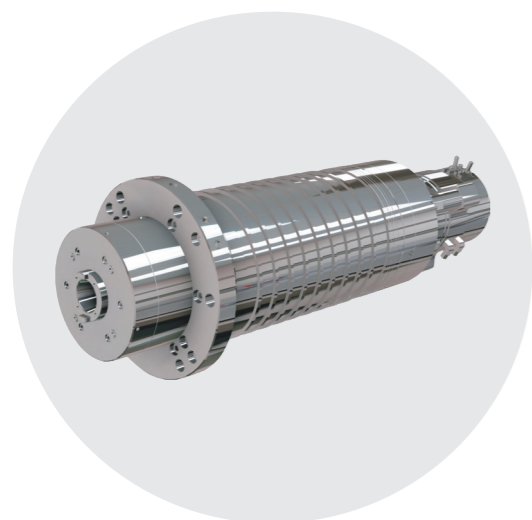
GLU series adopt full gear transmission ram, two speed shift gear box to achieve high speed, high torque cutting.

• **GRU II / GNU Series**

GRU II /GNU series adopts square ram, which has high rigidity structure, strong and stable cutting performance.

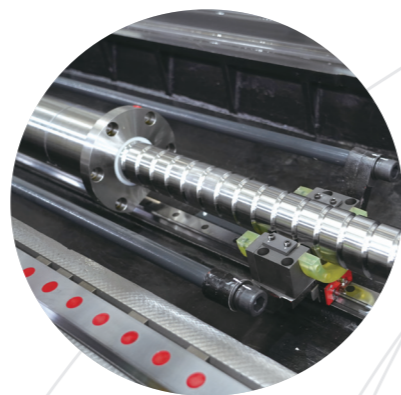
Auxiliary Support Structure of Lead Screw

The follow-up auxiliary support structure provides the best support position for the large stroke lead screw to ensure the long-term stable high-precision operation of the machine tool.



e Series Machine Tool Spindle

Independent R&D and manufacturing of electric spindle.



GLU(e)II PLUS-GRUII-GNU

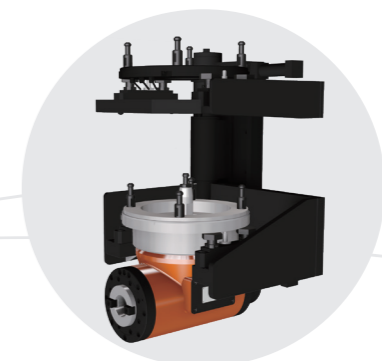


High Torque Gear Reducer

Two gear shifting is realized through hydraulic automatic shift, and stepless speed regulation is implemented in each gear. The whole system is simple and reliable in structure.

Column Rotating Head Magazine

Compact structure, realizing automatic head change, reducing auxiliary processing time and improving processing efficiency.



Toothed Coupling

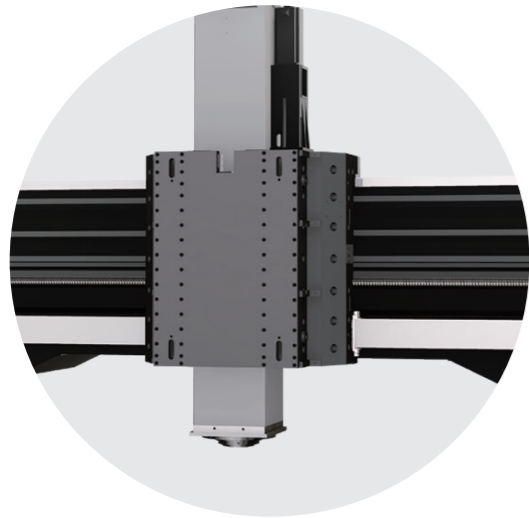
The main transmission system is connected by gear coupling, which is simple and reliable in structure and has large transmission torque.





GNUM-KMU

The product inherits the characteristics of traditional gantry machine tools, such as strong rigidity, symmetrical structure and high stability. Through finite element analysis, it optimizes the structure of basic components, improves the dynamic performance of the product, and obtains the perfect combination of high power, high torque, high efficiency and high-precision processing. It is applicable to large and heavy processing fields such as ships, metallurgy, petrochemical industry, mining machinery, electric power and energy, plastic machinery, engineering machinery, heavy industry machinery, etc.

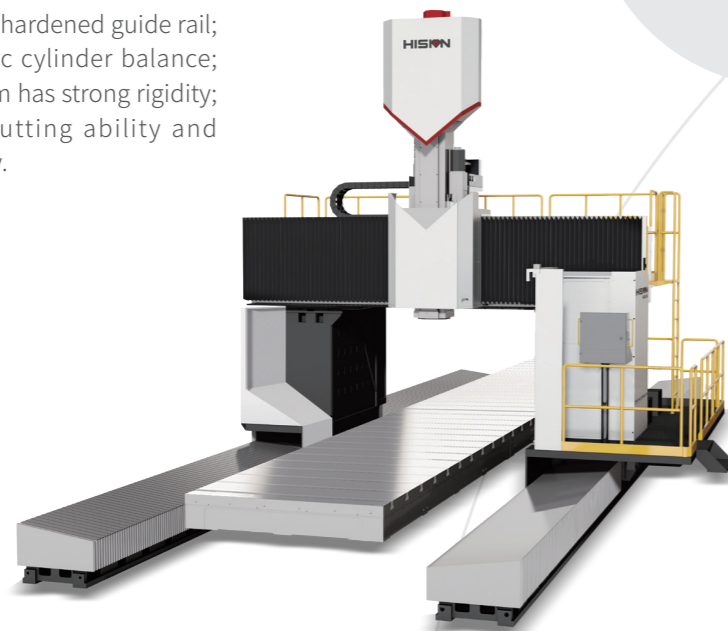


High Rigid Square Ram

Square ram adopts all inclusive four side constrained hardened guide rail; Double hydraulic cylinder balance; The whole system has strong rigidity; It has strong cutting ability and accuracy stability.

Self Made Powerful Spindle

The powerful spindle with double row cylindrical roller bearing is built in the spindle, which has high rigidity and large output torque.



GNUM-KMU



Double Motor Anti Backlash Transmission Mechanism

The moving column series high-precision double motor clearance eliminating transmission mechanism can meet the requirements of high-speed and high-precision linkage cutting.

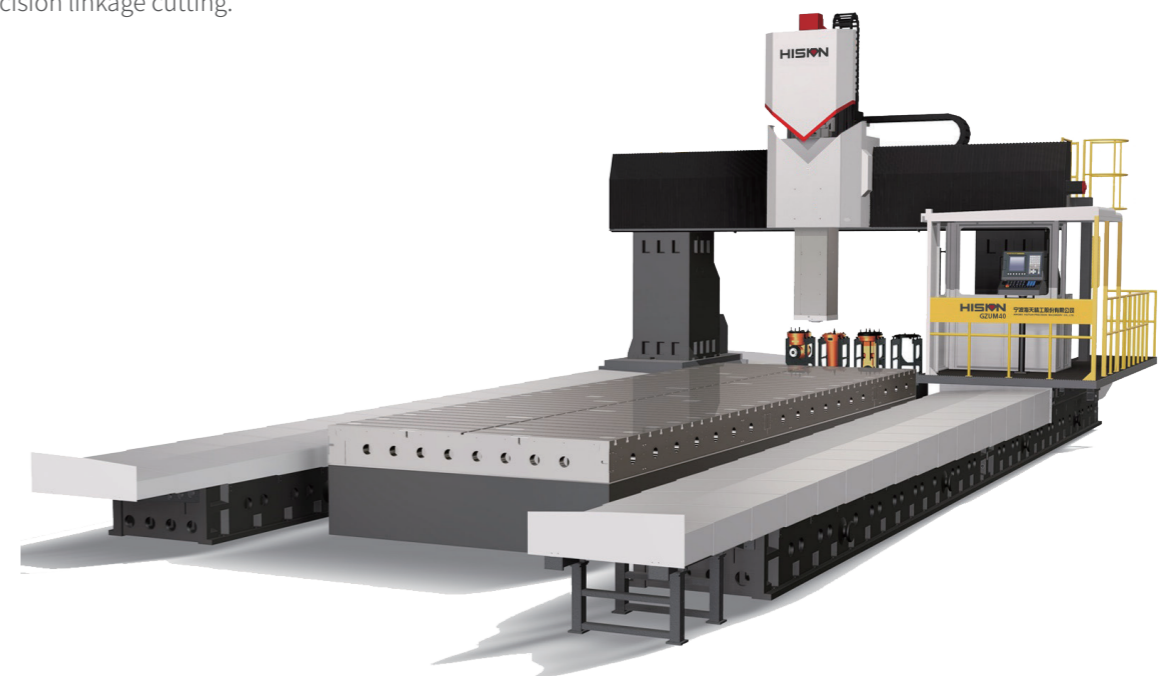
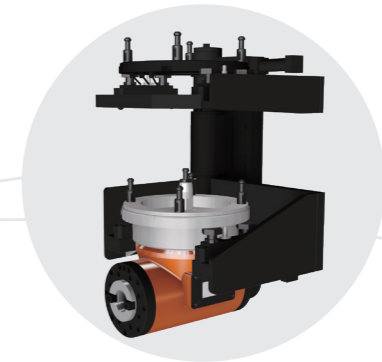
Column Rotating Head Magazine

Compact structure, realizing automatic head change, reducing auxiliary processing time and improving processing efficiency.



Vertical and Horizontal Tool Magazine

Accurate positioning, effectively shortening the auxiliary processing time





GLU II PLUS

Items	Unit	GLU13 II ×16 PLUS	GLU13 II ×21 PLUS	GLU13 II ×30 PLUS	GLU16 II ×20 PLUS	GLU16 II ×25 PLUS
» Machining Capacity						
X travel	mm	1600	2000	3100	2000	2500
Y travel	mm	1300	1300	1300	1500	1500
Z travel	mm	700	700	700	700	700
Distance between columns	mm	1550	1550	1550	1650	1650
Spindle nose to table surface	mm	205-905	205-905	205-905	255-955	255-955
» Table						
Table size	mm	1300×1800	1300×2200	1300×3000	1500×2200	1500×2700
Table loading	t	4	5	7	6	8
T slot size		22	22	22	22	22
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	12/20/10	12/20/10	12/20/10	12/20/10	12/20/10
Rapid traverse(X/Y/Z)	m/min	20/24/15	16/24/15	16/24/15	16/24/15	16/24/15
» Spindle						
Drive type		Gear box	Gear box	Gear box	Gear box	Gear box
Max. Spindle speed	rpm	6000	6000	6000	6000	6000
Spindle power	kW	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5
Spindle torque	N.m	316/522	316/522	316/522	316/522	316/522
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	350×350	350×350	350×350	350×350	350×350
» Tool Magazine (Option)						
Tool magazine capacity	T	24	24	24	24	24
Tool shank type		BT50	BT50	BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200
Max. tool length	mm	300	300	300	300	300
Max. tool weight	kg	20	20	20	20	20
» Other						
Power capacity	kVA	40	40	40	40	40
Machine weight	t	16	19	24	20	23
Machine size(L×W×H)	cm	527×448×430	627×448×430	827×448×430	628×458×430	727×458×430

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Full enclosure without top
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

GLUe II PLUS

Items	Unit	GLUe13 II×16 PLUS	GLUe13 II×21 PLUS	GLUe13 II×30 PLUS	GLUe16 II×20 PLUS	GLUe16 II×25 PLUS
» Machining Capacity						
X travel	mm	1600	2000	3100	2000	2500
Y travel	mm	1300	1300	1300	1500	1500
Z travel	mm	700	700	700	700	700
Distance between columns	mm	1550	1550	1550	1650	1650
Spindle nose to table surface	mm	150-850	150-850	150-850	200-900	200-900
» Table						
Table size	mm	1300×1800	1300×2200	1300×3000	1500×2200	1500×2700
Table loading	t	4	5	7	6	8
T slot size		22	22	22	22	22
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	12/20/10	12/20/10	12/20/10	12/20/10	12/20/10
Rapid traverse(X/Y/Z)	m/min	20/24/15	16/24/15	16/24/15	16/24/15	16/24/15
» Spindle						
Drive type		Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle
Max. Spindle speed	rpm	6000	6000	6000	6000	6000
Spindle power	kW	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5
Spindle torque	N.m	182/224	182/224	182/224	182/224	182/224
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	350×350	350×350	350×350	350×350	350×350
» Tool Magazine (Option)						
Tool magazine capacity	T	24	24	24	24	24
Tool shank type		BT50	BT50	BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200	Φ110/Φ200
Max. tool length	mm	300	300	300	300	300
Max. tool weight	kg	20	20	20	20	20
» Other						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	16	19	24	20	23
Machine size(L×W×H)	cm	527×448×430	627×448×430	827×448×430	628×458×430	727×458×430

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Built-in spindle (Hision)
3. Spindle oil chiller
4. Pneumatic, hydraulic and lubrication system
5. Cutting cooling
6. Automatic internal chip removal
7. External chain type chip conveyor
8. Full enclosure without top
9. 3-color signal lamp, working light
10. Standard accessories
11. Maintenance tools



GLUe

Items	Unit	GLUe18×30	GLUe23×30	GLUe23×40
» Machining Capacity				
X travel	mm	3200	3200	4200
Y travel	mm	1700	2200	2200
Z travel	mm	800	800	800
Distance between columns	mm	1790	2290	2290
Spindle nose to table surface	mm	250-1050	250-1050	250-1050
» Table				
Table size	mm	1500×3000	2000×3000	2000×4000
Table loading	t	10	15	18
T slot size		9×22×160	9×22×200	9×22×200
» Feed Rate				
Cutting feedrate(X/Y/Z)	m/min	10/10/10	10/10/10	10/10/10
Rapid traverse(X/Y/Z)	m/min	15/20/15	15/20/15	12/20/15
» Spindle				
Drive type		Built-in spindle	Built-in spindle	Built-in spindle
Max. Spindle speed	rpm	8000	8000	8000
Spindle power	kW	26/45	26/45	26/45
Spindle torque	N.m	305/623	305/623	305/623
Spindle taper		BT50	BT50	BT50
Ram section	mm	380×380	380×380	380×380
» Tool Magazine (Option)				
Tool magazine capacity	T	24	24	24
Tool shank type		BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ190	Φ110/Φ160	Φ110/Φ160
Max. tool length	mm	300	300	300
Max. tool weight	kg	20	20	20
» Other				
Power capacity	kVA	60	60	60
Machine weight	t	30	35	40
Machine size(L×W×H)	cm	975×470×530	1050×475×530	1250×475×530

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Built-in spindle (Hision)
3. Spindle oil chiller
4. Pneumatic, hydraulic and lubrication system
5. Cutting cooling
6. Automatic internal chip removal
7. External chain type chip conveyor
8. Simple splash guard
9. 3-color signal lamp, working light
10. Standard accessories
11. Maintenance tools

GLUe

Items	Unit	GLUe28×30	GLUe28×40	GLUe28×50	GLUe28×60
» Machining Capacity					
X travel	mm	3200	4200	5500	6500
Y travel	mm	2700	2700	2700	2700
Z travel	mm	800	800	800	800
Distance between columns	mm	2790	2790	2790	2790
Spindle nose to table surface	mm	250-1050	250-1050	250-1050	250-1050
» Table					
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000
Table loading	t	15	18	22	25
T slot size		9×22×200	9×22×200	9×22×200	9×22×200
» 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	15/15/15	12/15/15	10/15/15	10/15/15
» Spindle					
Drive type		Built-in spindle	Built-in spindle	Built-in spindle	Built-in spindle
Max. Spindle speed	rpm	8000	8000	8000	8000
Spindle power	kW	26/45	26/45	26/45	26/45
Spindle torque	N.m	305/623	305/623	305/623	305/623
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	380×380	380×380	380×380	380×380
» Tool Magazine (Option)					
Tool magazine capacity	T	24	24	24	24
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	300	300
Max. tool weight	kg	20	20	20	20
» Other					
Power capacity	kVA	60	60	60	60
Machine weight	t	38	43	47	52
Machine size(L×W×H)	cm	1050×530×530	1250×530×530	1500×530×530	1700×530×530

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Built-in spindle (Hision)
3. Spindle oil chiller
4. Pneumatic, hydraulic and lubrication system
5. Cutting cooling
6. Automatic internal chip removal
7. External chain type chip conveyor
8. Simple splash guard
9. 3-color signal lamp, working light
10. Standard accessories
11. Maintenance tools



GLU

Items	Unit	GLU18×30	GLU18×40	GLU23×30	GLU23×40
» Machining Capacity					
X travel	mm	3200	4200	3200	4200
Y travel	mm	1700	1700	2200	2200
Z travel	mm	1000	1000	1000	1000
Distance between columns	mm	1790	1790	2290	2290
Spindle nose to table surface	mm	250-1250	250-1250	250-1250	250-1250
» Table					
Table size	mm	1500×3000	1500×4000	2000×3000	2000×4000
Table loading	t	10	13	15	18
T slot size		9×22×160	9×22×160	9×22×200	9×22×200
» 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	15/20/15	12/20/15	15/20/15	12/20/15
» Spindle					
Max. Spindle speed	rpm	6000	6000	6000	6000
Spindle power	kW	15/18.5	15/18.5	22/26	22/26
Spindle torque	N.m	490/605	490/605	720/850	720/850
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	350×350 (380×380 square ram option)			
» Tool Magazine (Option)					
Tool magazine capacity	T	24	24	24	24
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	300	300
Max. tool weight	kg	20	20	20	20
» Other					
Power capacity	kVA	40	40	55	55
Machine weight	t	30	34	35	40
Machine size(L×W×H)	cm	975×470×510	945×475×510	1050×475×510	1250×475×510

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Long nose spindle
4. Spindle oil chiller
5. Z axis hydraulic balance system
6. Pneumatic, hydraulic and lubrication system
7. Cutting cooling
8. Automatic internal chip removal
9. External chain type chip conveyor
10. Simple splash guard
11. 3-color signal lamp, working light
12. Standard accessories
13. Maintenance tools

GLU

Items	Unit	GLU28×30	GLU28×40	GLU28×50	GLU28×60
» Machining Capacity					
X travel	mm	3200	4200	5500	6500
Y travel	mm	2700	2700	2700	2700
Z travel	mm	1000	1000	1000	1000
Distance between columns	mm	2790	2790	2790	2790
Spindle nose to table surface	mm	250-1250	250-1250	250-1250	250-1250
» Table					
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000
Table loading	t	15	18	22	25
T slot size		9×22×200	9×22×200	9×22×200	9×22×200
» 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	15/20/15	12/20/15	10/20/15	10/20/15
» Spindle					
Max. Spindle speed	rpm	6000	6000	6000	6000
Spindle power	kW	22/26	22/26	22/26	22/26
Spindle torque	N.m	720/850	720/850	720/850	720/850
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	350×350 (380×380 square ram option)			
» Tool Magazine (Option)					
Tool magazine capacity	T	24	24	24	24
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	300	300
Max. tool weight	kg	20	20	20	20
» Other					
Power capacity	kVA	55	55	55	55
Machine weight	t	38	43	47	52
Machine size(L×W×H)	cm	1050×530×510	1250×530×510	1500×530×510	1700×530×510

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Long nose spindle
4. Spindle oil chiller
5. Z axis hydraulic balance system
6. Pneumatic, hydraulic and lubrication system
7. Cutting cooling
8. Automatic internal chip removal
9. External chain type chip conveyor
10. Simple splash guard
11. 3-color signal lamp, working light
12. Standard accessories
13. Maintenance tools



GRU II

Items	Unit	GRU28 II×30	GRU28 II×40	GRU28 II×50	GRU28 II×60	GRU28 II×80
» Machining Capacity						
X travel	mm	3200	4200	5500	6500	8500
Y travel	mm	2700	2700	2700	2700	2700
Z travel	mm	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)
Distance between columns	mm	2800	2800	2800	2800	2800
Spindle nose to table surface	mm	150-1150	150-1150	150-1150	150-1150	150-1150
» Table						
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2000×8000
Table loading	t	15	18	22	25	30
T slot size		9×22×200	9×22×200	9×22×200	9×22×200	9×22×200
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	15/15/10	12/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	4000	4000	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	400×400	400×400	400×400	400×400	400×400
» Tool Magazine (Option)						
Tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Tool shank type		BT50	BT50	BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	300	300	300	300	300
Max. tool weight	kg	20	20	20	20	20
» Other						
Power capacity	kVA	55	55	55	55	55
Machine weight	t	42	48	53	59	68
Machine size(L×W×H)	cm	1050×530×550	1250×530×550	1500×530×550	1700×530×550	2300×530×550

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

GRU II

Items	Unit	GRU32 II×40	GRU32 II×50	GRU32 II×60	GRU32 II×80	GRU32 II×100	GRU32 II×120
» Machining Capacity							
X travel	mm	4200	5500	6500	8500	10500	12500
Y travel	mm	3200	3200	3200	3200	3200	3200
Z travel	mm	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)	1000 (1250 option)
Distance between columns	mm	3200	3200	3200	3200	3200	3200
Spindle nose to table surface	mm	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250
» Table							
Table size	mm	2500×4000	2500×5000	2500×6000	2500×8000	2500×10000	2500×12000
Table loading	t	20	25	28	35	45	55
T slot size		12×28×200	12×28×200	12×28×200	12×28×200	12×28×200	12×28×200
» Feed Rate							
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	12/15/10	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle							
Max. Spindle speed	rpm	4000	4000	4000	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50
Ram section	mm	400×400	400×400	400×400	400×400	400×400	400×400
» Tool Magazine (Option)							
Tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40	24/40
Tool shank type		BT50	BT50	BT50	BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	300	300	300	300	300	300
Max. tool weight	kg	20	20	20	20	20	20
» Other							
Power capacity	kVA	55	55	55	55	55	55
Machine weight	t	57	64	71	85	100	112
Machine size(L×W×H)	cm	1250×580×570	1500×580×570	1700×580×570	2100×580×570	2900×580×570	3200×580×570

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools



GRU II

Items	Unit	GRU36 II × 50	GRU36 II × 60	GRU36 II × 80	GRU36II × 100	GRU36II × 120
» Machining Capacity						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	3600	3600	3600	3600	3600
Z travel	mm	1250	1250	1250	1250	1250
Distance between columns	mm	3600	3600	3600	3600	3600
Spindle nose to table surface	mm	200-1450	200-1450	200-1450	200-1450	200-1450
» Table						
Table size	mm	3000×5000	3000×6000	3000×8000	3000×10000	3000×12000
Table loading	t	28	35	40	50	60
T slot size		14×28×200	14×28×200	14×28×200	14×28×200	14×28×200
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	4000	4000	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430
» Tool Magazine (Option)						
Tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Tool shank type		BT50	BT50	BT50	BT50	BT50
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
» Other						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	78	86	105	120	132
Machine size(L×W×H)	cm	1500×620×695	1700×620×695	2100×620×695	2900×620×695	3200×620×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

GRU II

Items	Unit	GRU42 II × 50	GRU42 II × 60	GRU42 II × 80	GRU42 II × 100	GRU42 II × 120
» Machining Capacity						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	4200	4200	4200	4200	4200
Z travel	mm	1250	1250	1250	1250	1250
Distance between columns	mm	4200	4200	4200	4200	4200
Spindle nose to table surface	mm	200-1450	200-1450	200-1450	200-1450	200-1450
» Table						
Table size	mm	3500×5000	3500×6000	3500×8000	3500×10000	3500×12000
Table loading	t	22	30	35	45	55
T slot size		20×36×250	24×36×250	32×36×250	40×36×250	48×36×250
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	4000	4000	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430
» Tool Magazine (Option)						
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60	40/60
Max.tool dia(Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25
» Other						
Power capacity	kVA	65	65	65	80	80
Machine weight	t	91	101	116	134	149
Machine size(L×W×H)	cm	1500×710×695	1700×710×695	2100×710×695	2900×710×695	3200×710×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools



GNU

Items	Unit	GNU28×30	GNU28×40	GNU28×50	GNU28×60	GNU32×40
» Machining Capacity						
X travel	mm	3200	4200	5500	6500	4200
Y travel	mm	2800	2800	2800	2800	3200
Z travel	mm	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)
Distance between columns	mm	2800	2800	2800	2800	3200
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400	250-1500
» Table						
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2500×4000
Table loading	t	15	18	22	25	20
T slot size		9×22×200	9×22×200	9×22×200	9×22×200	12×28×200
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	15/15/10	12/15/10	10/15/10	10/15/10	12/15/10
» Spindle						
Max. Spindle speed	rpm	3500	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450	450×450
» Tool Magazine (Option)						
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60	40/60
Max.tool dia(Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25
» Other						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	49	54	63	70	64
Machine size(L×W×H)	cm	1050×530×675	1250×530×675	1500×530×675	1700×530×675	1250×580×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

GNU

Items	Unit	GNU32×50	GNU32×60	GNU32×80	GNU32×100	GNU32×120
» Machining Capacity						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	3200	3200	3200	3200	3200
Z travel	mm	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)
Distance between columns	mm	3200	3200	3200	3200	3200
Spindle nose to table surface	mm	250-1500	250-1500	250-1500	250-1500	250-1500
» Table						
Table size	mm	2500×5000	2500×6000	2500×8000	2500×10000	2500×12000
Table loading	t	25	28	35	45	55
T slot size		12×28×200	12×28×200	12×28×200	12×28×200	12×28×200
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	3500	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450	450×450
» Tool Magazine (Option)						
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60	40/60
Max.tool dia(Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25
» Other						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	72	80	99	114	126
Machine size(L×W×H)	cm	1500×580×695	1700×580×695	2100×580×695	2900×580×695	3200×580×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools



GNU

Items	Unit	GNU36×50	GNU36×60	GNU36×80	GNU36×100	GNU36×120
» Machining Capacity						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	3600	3600	3600	3600	3600
Z travel	mm	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)
Distance between columns	mm	3600	3600	3600	3600	3600
Spindle nose to table surface	mm	200-1450	200-1450	200-1450	200-1450	200-1450
» Table						
Table size	mm	3000×5000	3000×6000	3000×8000	3000×10000	3000×12000
Table loading	t	28	35	40	50	60
T slot size		14×28×200	14×28×200	14×28×200	14×28×200	14×28×200
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	3500	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450	450×450
» Tool Magazine (Option)						
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60	40/60
Max.tool dia(Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25
» Other						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	79	87	106	121	133
Machine size(L×W×H)	cm	1500×620×695	1700×620×695	2100×620×695	2900×620×695	3200×620×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

GNU

Items	Unit	GNU42×50	GNU42×60	GNU42×80	GNU42×100	GNU42×120
» Machining Capacity						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	4200	4200	4200	4200	4200
Z travel	mm	1250	1250	1250	1250	1250
Distance between columns	mm	4200	4200	4200	4200	4200
Spindle nose to table surface	mm	200-1450	200-1450	200-1450	200-1450	200-1450
» Table						
Table size	mm	3500×5000	3500×6000	3500×8000	3500×10000	3500×12000
Table loading	t	22	30	35	45	55
T slot size		20×36×250	24×36×250	32×36×250	40×36×250	48×36×250
» Feed Rate						
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/15/10	10/15/10	10/15/10
» Spindle						
Max. Spindle speed	rpm	3500	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450	450×450
» Tool Magazine (Option)						
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60	40/60
Max.tool dia(Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25
» Other						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	92	102	117	135	150
Machine size(L×W×H)	cm	1500×710×695	1700×710×695	2100×710×695	2900×710×695	3200×710×695

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. External chain type chip conveyor
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools



GNUM

Items	Unit	GNU40M×90	GNU40M×110	GNU50M×100	GNU50M×130
» Machining Capacity					
X travel	mm	9000	11000	10000	13000
Y travel	mm	4400+150(tool change)	4400+150(tool change)	5400+150(tool change)	5400+150(tool change)
Z travel	mm	1250	1250	1250	1250
Distance between columns	mm	4100	4100	5100	5100
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400
» Table					
Table size	mm	3000×8000	3000×10000	4000×9000	4000×12000
Table loading	t/m ²	5	5	5	5
T slot size	mm	28×250 (Y direction)	28×250 (Y direction)	28×250 (Y direction)	28×250 (Y direction)
» Feed Rate					
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10	10/10/10	10/10/10
» Spindle					
Max. Spindle speed	rpm	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450
» Tool Magazine (Option)					
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40
Max.tool dia.(Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	400	400	400	400
Max. tool weight	kg	20	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60
Max.tool dia. (Adjacent Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	400	400	400	400
Max. tool weight	kg	25	25	25	25
» Other					
Power capacity	kVA	85	85	85	85
Machine weight	t	103	120	119	139
Machine size(L×W×H)	cm	1800×1000×730	2000×1000×730	1900×1100×730	2200×1100×730

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. X axis linear scale
7. Cutting cooling
8. Follow up operation room
9. Portable operation handheld box
10. Chain type chip conveyor on both sides of worktable
11. X axis towing chain overhead device
12. 3-color signal lamp, working light
13. Standard accessories
14. Maintenance tools

KMU

Items	Unit	KMU2090	KMU2590	KMU3090	KMU3590
» Machining Capacity					
X travel	mm	9000	9000	9000	9000
Y travel	mm	3200	3600	4200	4600
Z travel	mm	1250	1250	1250	1250
Distance between columns	mm	3090	3490	4100	4500
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400
» Table					
Table size	mm	2000×8000	2500×8000	3000×8000	3500×8000
Table loading	t/m ²	5	5	5	5
T slot size		28×250 (Y direction)	28×250 (Y direction)	28×250 (Y direction)	28×250 (Y direction)
» Feed Rate					
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	15/15/10	15/15/10	15/15/10	15/12/10
» Spindle					
Max. Spindle speed	rpm	4000	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420x430
» Tool Magazine (Option)					
Vertical tool magazine capacity	T	24/40	24/40	24/40	24/40
Max.tool dia. (Adjacent Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	380	380	380	380
Max. tool weight	kg	25	25	25	25
V&H tool magazine capacity	T	40/60	40/60	40/60	40/60
Max.tool dia. (Adjacent Vacant)	mm	Φ125/Φ245	Φ125/Φ245	Φ125/Φ245	Φ125/Φ245
Max. tool length	mm	380	380	380	380
Max. tool weight	kg	25	25	25	25
» Other					
Power capacity	kVA	75	75	75	75
Machine weight	t	85	88	92	97
Machine size(L×W×H)	cm	1650×710×550	1650×760×550	1650×810×550	1650×870×550

Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Spindle oil chiller
4. Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. X axis linear scale
7. Cutting cooling
8. Follow up operation room
9. Portable operation handheld box
10. Chain type chip conveyor on both sides of worktable
11. X axis towing chain overhead device
12. 3-color signal lamp, working light
13. Standard accessories
14. Maintenance tools