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## DOUBLE COLUMN MACHINING CENTER

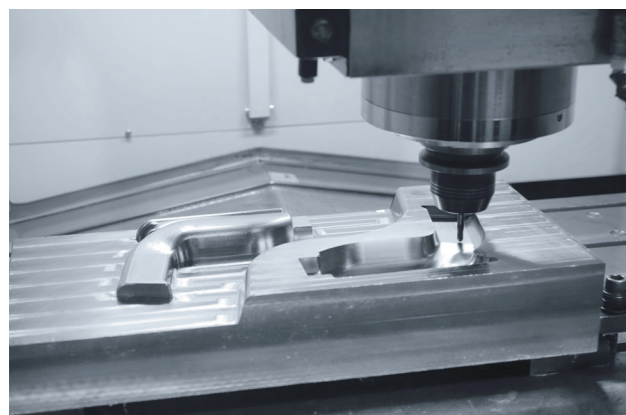
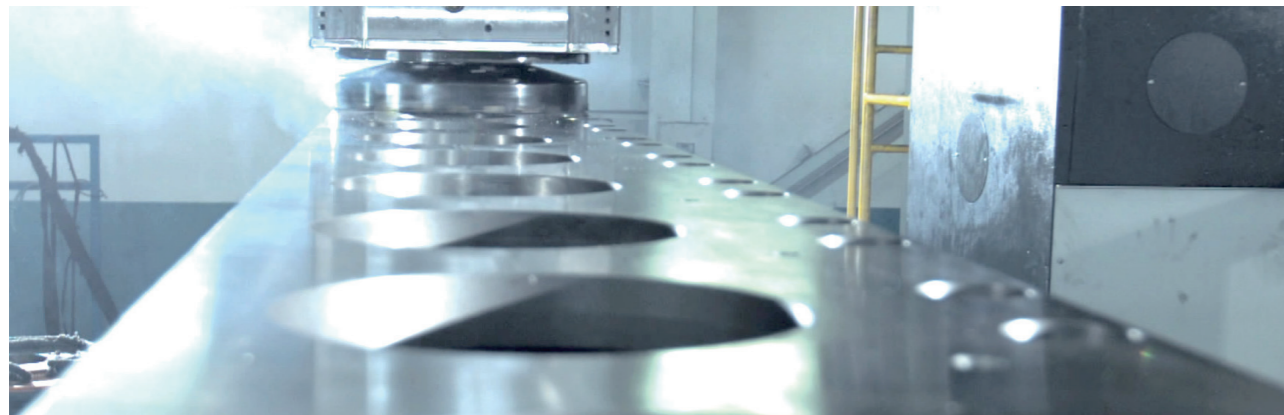
GLU(e)II PLUS / GLU(e) / GRU / GHU / GNU  
GRUE / GKUE / GNUM / GKUM / GKUME / KMU



# 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

**GLU II PLUS / GLUe II PLUS** [Page 07-08]

**GLUe** [Page 09-10]

**GLU** [Page 11-12]

**GRU II** [Page 13-16]

**GHU** [Page 17-20]

**GNU** [Page 21-24]



**GRUE** [Page 25-26]

**GKUE** [Page 27]



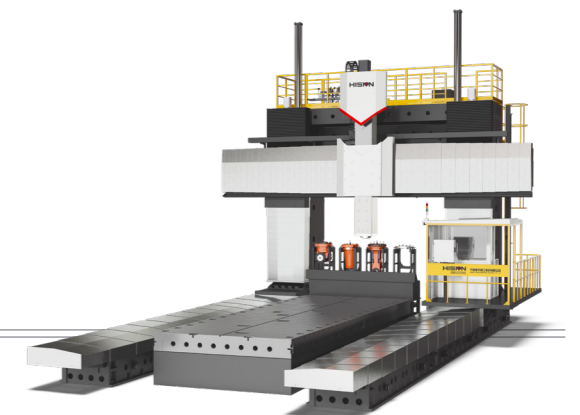
**GNUM** [Page 28-29]

**GKUM** [Page 30-31]

**KMU** [Page 33]



**GKUME** [Page 32]





# GLU(e)II PLUS-GRU II-GHU-GNU

Inheriting the structural characteristics of strong rigidity and wide processing range of traditional double column products, integrating advanced technical elements, and pursuing the development concept of high efficiency, high precision, and energy saving. Create new generation of U series double column 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 crossing boxway 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**

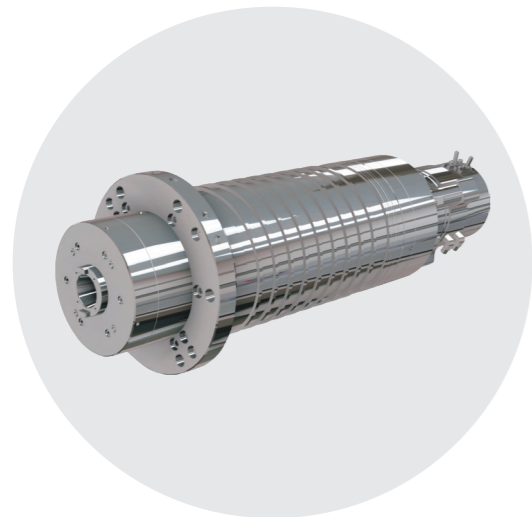
GLU series adopt full gear transmission ram, two speed shift gear box to achieve high speed, high torque cutting.

• **GRU II / GNU / GHU Series**

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

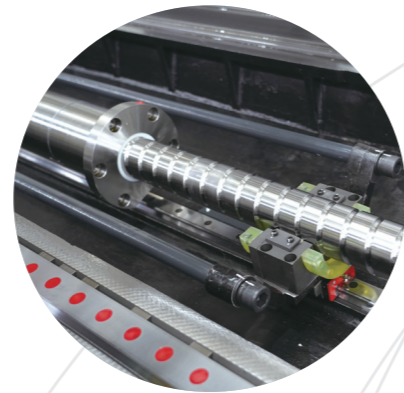
## Auxiliary Support Structure of Lead Screw

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-GRU II-GHU-GNU

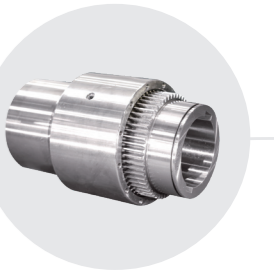
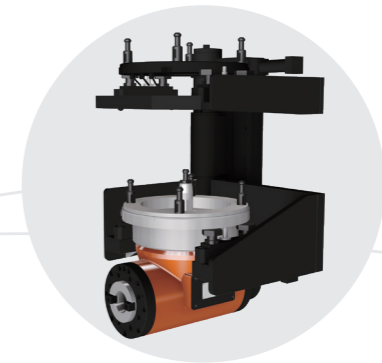


## High Torque Gear Reducer

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.

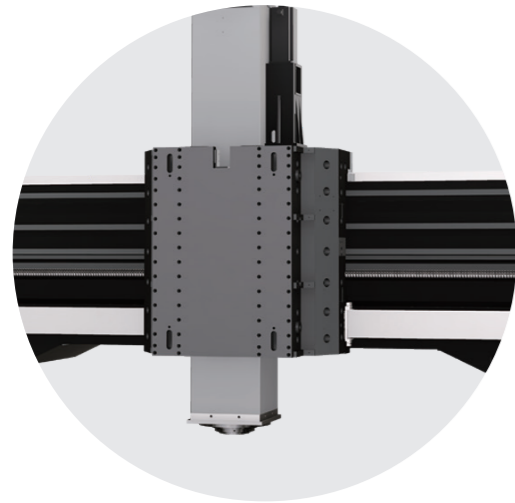




# GRUE-GKUE-GNUM-GKUM-GKUME-KMU

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.

# GRUE-GKUE-GNUM-GKUM-GKUME-KMU



## 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 has high rigidity and large output torque.



## 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.

## Multi station servo head library

Multi station servo head library, with a small footprint, can store multiple attachment heads; The rotation is driven by servo, with precise and reliable positioning. (GRUE, GKUE series)

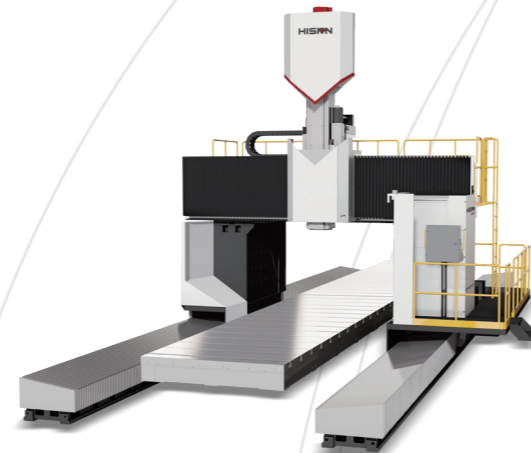


## Vertical and Horizontal Tool Magazine

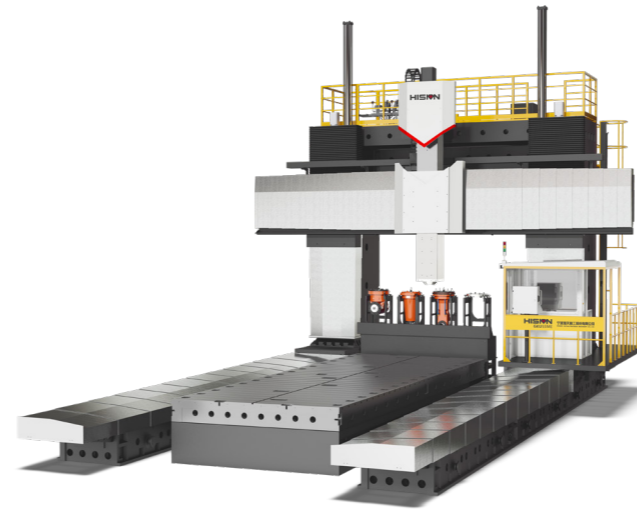
Accurate positioning, effectively shortening the auxiliary processing time



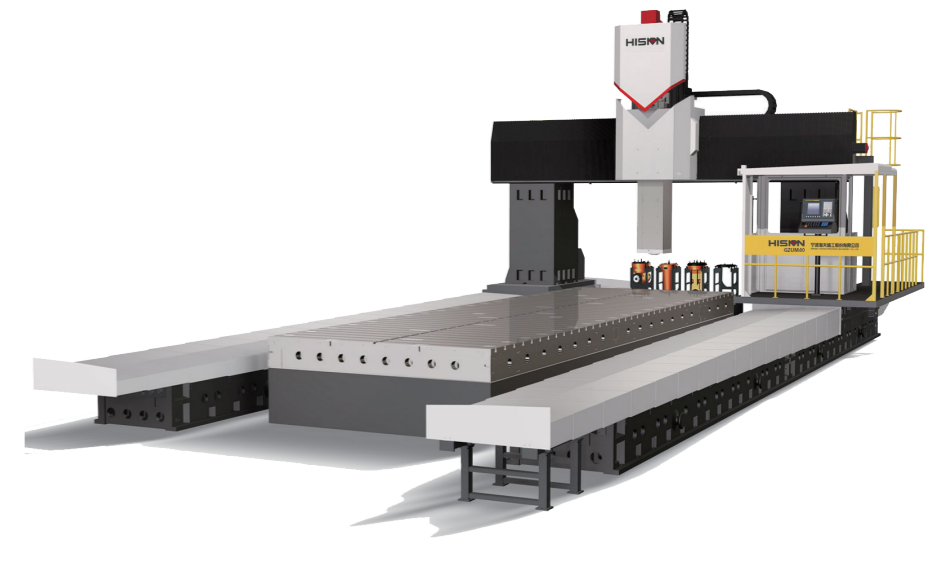
GRUE/GKUE Series



KMU Series



GKUME Series



GNUM/GKUM Series



# 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
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
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
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision (GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.012/0.012/0.012	0.012/0.012/0.012	0.015/0.012/0.012	0.012/0.012/0.012	0.012/0.012/0.012
Repeat Positioning accuracy X/Y/Z	mm	0.008/0.008/0.008	0.008/0.008/0.008	0.010/0.008/0.008	0.008/0.008/0.008	0.008/0.008/0.008
<b>» Other</b>						
Power capacity	kVA	40	40	40	40	40
Machine weight	t	16	19	24	20	23
Machine size(L×W×H)	mm	5270×4480×4300	6270×4480×4300	8270×4480×4300	6280×4580×4300	7270×4580×4300

## 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

## Option Configuration

1. SIEMENS 828D
2. Column heighten 200/400mm
3. 24/30/40T ATC
4. CTS (2/3-6MPa)
5. NC rotary table
6. Full enclosure with top cover
7. Linear scale
8. Manual 90° milling heads
9. Tool setter
10. Workpiece probe
11. Oil skimmer
12. Water gun
13. Air gun
14. AC for electrical cabinet

# 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
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
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
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision (GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.012/0.012/0.012	0.012/0.012/0.012	0.015/0.012/0.012	0.012/0.012/0.012	0.012/0.012/0.012
Repeat Positioning accuracy X/Y/Z	mm	0.008/0.008/0.008	0.008/0.008/0.008	0.010/0.008/0.008	0.008/0.008/0.008	0.008/0.008/0.008
<b>» Other</b>						
Power capacity	kVA	40	40	40	40	40
Machine weight	t	16	19	24	20	23
Machine size(L×W×H)	mm	5270×4480×4300	6270×4480×4300	8270×4480×4300	6280×4580×4300	7270×4580×4300

## 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
12. Z axis hydraulic balance system

## Option Configuration

1. Controller: Mitsubishi
2. Hision 8000rpm built-in spindle
3. Column heighten 200/400mm
4. 24/30/40T ATC
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure with top cover
8. Linear scale
9. Manual 90° milling head
10. Tool setter
11. Workpiece probe
12. Oil skimmer
13. Water gun
14. Air gun
15. AC for electrical cabinet



# GLUe

Items	Unit	GLUe18×30	GLUe23×30	GLUe23×40
<b>» Machining Capacity</b>				
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
<b>» Table</b>				
Table size	mm	1500×3000	2000×3000	2000×4000
Table loading	t	10	15	18
T slot size		22×160×9	22×200×9	22×200×9
<b>» Feed</b>				
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
<b>» Spindle</b>				
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
<b>» Tool Magazine (Option)</b>				
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
<b>» Precision ( GB/T19362.1-2003)</b>				
Positioning accuracy X/Y/Z	mm	0.018/0.015/0.015	0.018/0.015/0.015	0.020/0.018/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.010/0.010	0.012/0.012/0.010	0.015/0.012/0.010
<b>» Other</b>				
Power capacity	kVA	60	60	60
Machine weight	t	29	34	39
Machine size(L×W×H)	mm	9750×4700×5300	10500×4750×5300	12500×4750×5300

## 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
12. Z axis hydraulic balance system

## Option Configuration

1. Controller: SIEMENS 828D
2. Hision 12000rpm built-in spindle
3. KSL 20000/24000rpm built-in spindle
4. Column heighten 200/400mm
5. Y travel extended
6. Z axis 1000mm (380x380 ram)
7. 40/60 V&H tool magazine
8. CTS (2/3-6MPa)
9. NC rotary table
10. Full enclosure
11. Linear scale
12. Auto 90° milling head
13. Two-station rotary head stock
14. Tool setter
15. Workpiece probe
16. Oil skimmer
17. Water gun
18. Air gun
19. AC for electrical cabinet

# GLUe

Items	Unit	GLUe28×30	GLUe28×40	GLUe28×50	GLUe28×60
<b>» Machining Capacity</b>					
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
<b>» Table</b>					
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000
Table loading	t	15	18	22	25
T slot size		22×200×9	22×200×9	22×200×9	22×200×9
<b>» Feed</b>					
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
<b>» Spindle</b>					
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
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.018/0.018/0.015	0.020/0.018/0.015	0.025/0.018/0.015	0.028/0.018/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.015/0.010	0.015/0.015/0.010	0.018/0.015/0.010	0.020/0.015/0.010
<b>» Other</b>					
Power capacity	kVA	60	60	60	60
Machine weight	t	37	42	47	54
Machine size(L×W×H)	mm	10500×5300×5300	12500×5300×5300	15000×5300×5300	17000×5300×5300

## 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
12. Z axis hydraulic balance system

## Option Configuration

1. Controller: SIEMENS 828D
2. Hision 12000rpm built-in spindle
3. KSL 20000/24000rpm built-in spindle
4. Column heighten 200/400mm
5. Y travel extended
6. Z axis 1000mm (380x380 ram)
7. 40/60 V&H tool magazine
8. CTS (2/3-6MPa)
9. NC rotary table
10. Full enclosure
11. Linear scale
12. Auto 90° milling head
13. Two-station rotary head stock
14. Tool setter
15. Workpiece probe
16. Oil skimmer
17. Water gun
18. Air gun
19. AC for electrical cabinet



# GLU

Items	Unit	GLU18×30	GLU18×40	GLU23×30	GLU23×40
<b>» Machining Capacity</b>					
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
<b>» Table</b>					
Table size	mm	1500×3000	1500×4000	2000×3000	2000×4000
Table loading	t	10	13	15	18
T slot size		22×160×9	22×160×9	22×200×9	22×200×9
<b>» Feed</b>					
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
<b>» Spindle</b>					
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)			
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.018/0.015/0.015	0.020/0.015/0.015	0.018/0.015/0.015	0.020/0.018/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.010/0.010	0.015/0.010/0.010	0.012/0.012/0.010	0.015/0.012/0.010
<b>» Other</b>					
Power capacity	kVA	40	40	55	55
Machine weight	t	29	34	34	39
Machine size(L×W×H)	mm	9750×4700×5100	12500×4700×5100	10500×4750×5100	12500×4750×5100

## Standard Configuration

1. Controller: FANUC Oi 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GLU

Items	Unit	GLU28×30	GLU28×40	GLU28×50	GLU28×60	GLU28×80
<b>» Machining Capacity</b>						
X travel	mm	3200	4200	5500	6500	8500
Y travel	mm	2700	2700	2700	2700	2700
Z travel	mm	1000	1000	1000	1000	1000
Distance between columns	mm	2790	2790	2790	2790	2790
Spindle nose to table surface	mm	250-1250	250-1250	250-1250	250-1250	250-1250
<b>» Table</b>						
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2000×8000
Table loading	t	15	18	22	25	30
T slot size		22×200×9	22×200×9	22×200×9	22×200×9	22×200×9
<b>» Feed</b>						
Cutting feedrate(X/Y/Z)	m/min	10/10/10	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	10/20/15
<b>» Spindle</b>						
Max. spindle speed	rpm	6000	6000	6000	6000	6000
Spindle power	kW	22/26	22/26	22/26	22/26	22/26
Spindle torque	N.m	720/850	720/850	720/850	720/850	750/850
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	350×350 (380×380 square ram option)				
<b>» Tool Magazine (Option)</b>						
Tool magazine capacity	T	24	24	24	24	24
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.018/0.018/0.015	0.020/0.018/0.015	0.025/0.018/0.015	0.028/0.018/0.015	0.032/0.018/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.015/0.010	0.015/0.015/0.010	0.018/0.015/0.010	0.020/0.015/0.010	0.022/0.015/0.010
<b>» Other</b>						
Power capacity	kVA	55	55	55	55	55
Machine weight	t	37	42	47	54	64
Machine size(L×W×H)	mm	10500×5300×5100	12500×5300×5100	15000×5300×5100	17000×5300×5100	21000×5300×5100

## Standard Configuration

1. Controller: FANUC Oi 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GRU II

Items	Unit	GRU28 II×30	GRU28 II×40	GRU28 II×50	GRU28 II×60	GRU28 II×80
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2000×8000
Table loading	t	15	18	22	25	30
T slot size		22×200×9	22×200×9	22×200×9	22×200×9	22×200×9
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.018/0.018/0.015	0.020/0.018/0.015	0.025/0.018/0.015	0.028/0.018/0.015	0.032/0.018/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.015/0.010	0.015/0.015/0.010	0.018/0.015/0.010	0.020/0.015/0.010	0.022/0.015/0.010
<b>» Other</b>						
Power capacity	kVA	55	55	55	55	55
Machine weight	t	39	45	50	57	67
Machine size(L×W×H)	mm	10500×5300×5500	12500×5300×5500	15000×5300×5500	17000×5300×5500	21000×5300×5500

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GRU II

Items	Unit	GRU32 II×40	GRU32 II×50	GRU32 II×60	GRU32 II×80	GRU32 II×100	GRU32 II×120
<b>» Machining Capacity</b>							
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
<b>» Table</b>							
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		28×200×12	28×200×12	28×200×12	28×200×12	28×200×12	28×200×12
<b>» Feed</b>							
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
<b>» Spindle</b>							
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
<b>» Tool Magazine (Option)</b>							
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
<b>» Precision ( GB/T19362.1-2003)</b>							
Positioning accuracy X/Y/Z	mm	0.020/0.020/0.015	0.025/0.020/0.015	0.028/0.020/0.015	0.032/0.020/0.015	0.038/0.020/0.015	0.052/0.020/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.015/0.018/0.010	0.018/0.018/0.010	0.020/0.018/0.010	0.022/0.018/0.010	0.030/0.018/0.010	0.036/0.018/0.010
<b>» Other</b>							
Power capacity	kVA	55	55	55	55	55	55
Machine weight	t	55	62	69	84	100	112
Machine size(L×W×H)	mm	12500×5800×5700	15000×5800×5700	17000×5800×5700	21000×5800×5700	29000×5800×5700	32000×5800×5700

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet





# GRU II

Items	Unit	GRU36 II × 50	GRU36 II × 60	GRU36 II × 80
<b>» Machining Capacity</b>				
X travel	mm	5500	6500	8500
Y travel	mm	3600	3600	3600
Z travel	mm	1250	1250	1250
Distance between columns	mm	3600	3600	3600
Spindle nose to table surface	mm	200-1200	200-1200	200-1200
<b>» Table</b>				
Table size	mm	3000×5000	3000×6000	3000×8000
Table loading	t	28	35	40
T slot size		28×200×14	28×200×14	28×200×14
<b>» Feed</b>				
Cutting feedrate(X/Y/Z)	m/min	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
<b>» Spindle</b>				
Max. spindle speed	rpm	4000	4000	4000
Spindle power	kW	22/26	22/26	22/26
Spindle torque	N.m	866/1023	866/1023	866/1023
Spindle taper		BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430
<b>» Tool Magazine (Option)</b>				
Vertical tool magazine capacity	T	24/40	24/40	24/40
Max.tool dia. (Adjacent/Vacant)	mm	Φ110/Φ220	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	300	300	300
Max. tool weight	kg	20	20	20
V&H tool magazine capacity	T	40/60	40/60	40/60
Max.tool dia. (Adjacent/Vacant)	mm	Φ125/Φ250	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	300	300	300
Max. tool weight	kg	25	25	25
<b>» Precision ( GB/T19362.1-2003)</b>				
Positioning accuracy X/Y/Z	mm	0.025/0.024/0.015	0.028/0.024/0.015	0.032/0.024/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.020/0.010	0.020/0.020/0.010	0.022/0.020/0.010
<b>» Other</b>				
Power capacity	kVA	55	55	55
Machine weight	t	67	75	91
Machine size(L×W×H)	mm	15000×6200×5700	17000×6200×5700	21000×6200×5700

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GRU II

Items	Unit	GRU36 II × 100	GRU36 II × 120
<b>» Machining Capacity</b>			
X travel	mm	10500	12500
Y travel	mm	3600	3600
Z travel	mm	1250	1250
Distance between columns	mm	3600	3600
Spindle nose to table surface	mm	200-1200	200-1200
<b>» Table</b>			
Table size	mm	3000×10000	3000×12000
Table loading	t	50	60
T slot size		28×200×14	28×200×14
<b>» Feed</b>			
Cutting feedrate(X/Y/Z)	m/min	6/6/6	6/6/6
Rapid traverse(X/Y/Z)	m/min	10/15/10	10/15/10
<b>» Spindle</b>			
Max. spindle speed	rpm	4000	4000
Spindle power	kW	22/26	22/26
Spindle torque	N.m	866/1023	866/1023
Spindle taper		BT50	BT50
Ram section	mm	420×430	420×430
<b>» Tool Magazine (Option)</b>			
Vertical tool magazine capacity	T	24/40	24/40
Max.tool dia. (Adjacent/Vacant)	mm	Φ110/Φ220	Φ110/Φ220
Max. tool length	mm	300	300
Max. tool weight	kg	20	20
V&H tool magazine capacity	T	40/60	40/60
Max.tool dia. (Adjacent/Vacant)	mm	Φ125/Φ250	Φ125/Φ250
Max. tool length	mm	300	300
Max. tool weight	kg	25	25
<b>» Precision ( GB/T19362.1-2003)</b>			
Positioning accuracy X/Y/Z	mm	0.038/0.024/0.015	0.052/0.024/0.015
Repeat Positioning accuracy X/Y/Z	mm	0.030/0.020/0.010	0.036/0.020/0.010
<b>» Other</b>			
Power capacity	kVA	55	55
Machine weight	t	110	123
Machine size(L×W×H)	mm	29000×6200×5700	32000×6200×5700

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GHU

Items	Unit	GHU28×30	GHU28×40	GHU28×50	GHU28×60	GHU28×80
<b>» Machining Capacity</b>						
X travel	mm	3200	4200	5500	6500	8500
Y travel	mm	2800	2800	2800	2800	2800
Z travel	mm	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)
Distance between columns	mm	2800	2800	2800	2800	2800
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400	150-1400
<b>» Table</b>						
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2000×8000
Table loading	t	15	18	22	25	30
T slot size		22×200×9	22×200×9	22×200×9	22×200×9	22×200×9
<b>» Feed</b>						
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
<b>» Spindle</b>						
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	1142/1350	1142/1350	1142/1350	1142/1350	1142/1350
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.018/0.018/0.018	0.020/0.018/0.018	0.025/0.018/0.018	0.028/0.018/0.018	0.032/0.018/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.015/0.012	0.015/0.015/0.012	0.018/0.015/0.012	0.020/0.015/0.012	0.022/0.015/0.012
<b>» Other</b>						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	44	49	56	63	74
Machine size(L×W×H)	mm	10500×5300×6750	12500×5300×6750	15000×5300×6750	17000×5300×6750	21000×5300×6750

## Standard Configuration

1. Contoller: FANUC Oi 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GHU

Items	Unit	GHU32×40	GHU32×50	GHU32×60	GHU32×80	GHU32×100	GHU32×120
<b>» Machining Capacity</b>							
X travel	mm	4200	5500	6500	8500	10500	12500
Y travel	mm	3200	3200	3200	3200	3200	3200
Z travel	mm	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)
Distance between columns	mm	3200	3200	3200	3200	3200	3200
Spindle nose to table surface	mm	250-1500	250-1500	250-1500	250-1500	250-1500	250-1500
<b>» Table</b>							
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		28×200×12	28×200×12	28×200×12	28×200×12	28×200×12	28×200×12
<b>» Feed</b>							
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
<b>» Spindle</b>							
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	1142/1350	1142/1350	1142/1350	1142/1350	1142/1350	1142/1350
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430	420×430
<b>» Tool Magazine (Option)</b>							
Vertical tool magazine capacity	T	24/40	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	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	20	20
V&H tool magazine capacity	T	40/60	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	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25	25
<b>» Precision ( GB/T19362.1-2003)</b>							
Positioning accuracy X/Y/Z	mm	0.020/0.020/0.018	0.025/0.020/0.018	0.028/0.020/0.018	0.032/0.020/0.018	0.038/0.020/0.018	0.052/0.020/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.015/0.018/0.012	0.018/0.018/0.012	0.020/0.018/0.012	0.022/0.018/0.012	0.030/0.018/0.012	0.036/0.018/0.012
<b>» Other</b>							
Power capacity	kVA	65	65	65	65	65	65
Machine weight	t	60	68	76	90	112	125
Machine size(L×W×H)	mm	12500×5800×6950	15000×5800×6950	17000×5800×6950	21000×5800×6950	29000×5800×6950	32000×5800×6950

## Standard Configuration

1. Contoller: FANUC Oi 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GHU

Items	Unit	GHU36×50	GHU36×60	GHU36×80	GHU36×100	GHU36×120
<b>» Machining Capacity</b>						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	3600	3600	3600	3600	3600
Z travel	mm	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)
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
<b>» Table</b>						
Table size	mm	3000×5000	3000×6000	3000×8000	3000×10000	3000×12000
Table loading	t	28	35	40	50	60
T slot size		28×200×14	28×200×14	28×200×14	28×200×14	28×200×14
<b>» Feed</b>						
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
<b>» Spindle</b>						
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	1142/1350	1142/1350	1142/1350	1142/1350	1142/1350
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.024/0.018	0.028/0.024/0.018	0.032/0.024/0.018	0.038/0.024/0.018	0.052/0.024/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.020/0.012	0.020/0.020/0.012	0.022/0.020/0.012	0.030/0.020/0.012	0.036/0.020/0.012
<b>» Other</b>						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	74	81	99	116	132
Machine size(L×W×H)	mm	15000×6200×6950	17000×6200×6950	21000×6200×6950	29000×6200×6950	32000×6200×6950

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GHU

Items	Unit	GHU42×50	GHU42×60	GHU42×80	GHU42×100	GHU42×120
<b>» Machining Capacity</b>						
X travel	mm	5500	6500	8500	10500	12500
Y travel	mm	4200	4200	4200	4200	4200
Z travel	mm	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)	1250 (option1500)
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
<b>» Table</b>						
Table size	mm	3500×5000	3500×6000	3500×8000	3500×10000	3500×12000
Table loading	t	22	30	35	45	55
T slot size		36×250×20	36×250×24	36×250×32	36×250×40	36×250×48
<b>» Feed</b>						
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
<b>» Spindle</b>						
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	1142/1350	1142/1350	1142/1350	1142/1350	1142/1350
Spindle taper		BT50	BT50	BT50	BT50	BT50
Ram section	mm	420×430	420×430	420×430	420×430	420×430
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.028/0.018	0.028/0.028/0.018	0.032/0.028/0.018	0.038/0.028/0.018	0.052/0.028/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.022/0.012	0.020/0.022/0.012	0.022/0.022/0.012	0.030/0.022/0.012	0.036/0.022/0.012
<b>» Other</b>						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	84	94	117	133	149
Machine size(L×W×H)	mm	15000×7100×6950	17000×7100×6950	21000×7100×6950	29000×7100×6950	32000×7100×6950

## 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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GNU

Items	Unit	GNU28×30	GNU28×40	GNU28×50	GNU28×60	GNU28×80	GNU32×40
<b>» Machining Capacity</b>							
X travel	mm	3200	4200	5500	6500	8500	4200
Y travel	mm	2800	2800	2800	2800	2800	3200
Z travel	mm	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)	1250 (1500 option)
Distance between columns	mm	2800	2800	2800	2800	2800	3200
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400	150-1400	250-1500
<b>» Table</b>							
Table size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2000×8000	2500×4000
Table loading	t	15	18	22	25	30	20
T slot size		22×200×9	22×200×9	22×200×9	22×200×9	22×200×9	28×200×12
<b>» Feed</b>							
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	15/15/10	12/15/10	10/15/10	10/15/10	10/15/10	12/15/10
<b>» Spindle</b>							
Max. spindle speed	rpm	3500	3500	3500	3500	3500	3500
Spindle power	kW	30/37	30/37	30/37	30/37	30/37	30/37
Spindle torque	N.m	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300	1860/2300
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50
Ram section	mm	450×450	450×450	450×450	450×450	450×450	450×450
<b>» Tool Magazine (Option)</b>							
Vertical tool magazine capacity	T	24/40	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	Φ110/Φ220
Max. tool length	mm	400	400	400	400	400	400
Max. tool weight	kg	20	20	20	20	25	20
V&H tool magazine capacity	T	40/60	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	Φ125/Φ250
Max. tool length	mm	400	400	400	400	400	400
Max. tool weight	kg	25	25	25	25	25	25
<b>» Precision (GB/T19362.1-2003)</b>							
Positioning accuracy X/Y/Z	mm	0.018/0.018/0.018	0.020/0.018/0.018	0.025/0.018/0.018	0.028/0.018/0.018	0.032/0.018/0.015	0.020/0.020/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.012/0.015/0.012	0.015/0.015/0.012	0.018/0.015/0.012	0.020/0.015/0.012	0.022/0.015/0.010	0.015/0.018/0.012
<b>» Other</b>							
Power capacity	kVA	65	65	65	65	65	65
Machine weight	t	46	51	58	65	76	62
Machine size(L×W×H)	mm	10500×5300×6750	12500×5300×6750	15000×5300×6750	17000×5300×6750	21000×5300×6750	12500×5800×6950

## Standard Configuration

1. Contoller: 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GNU

Items	Unit	GNU32×50	GNU32×60	GNU32×80	GNU32×100	GNU32×120
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
Table size	mm	2500×5000	2500×6000	2500×8000	2500×10000	2500×12000
Table loading	t	25	28	35	45	55
T slot size		28×200×12	28×200×12	28×200×12	28×200×12	28×200×12
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision (GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.020/0.018	0.028/0.020/0.018	0.032/0.020/0.018	0.038/0.020/0.018	0.052/0.020/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.018/0.012	0.020/0.018/0.012	0.022/0.018/0.012	0.030/0.018/0.012	0.036/0.018/0.012
<b>» Other</b>						
Power capacity	kVA	65	65	65	65	65
Machine weight	t	70	78	92	114	127
Machine size(L×W×H)	mm	15000×5800×6950	17000×5800×6950	21000×5800×6950	29000×5800×6950	32000×5800×6950

## Standard Configuration

1. Contoller: 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GNU

Items	Unit	GNU36×50	GNU36×60	GNU36×80	GNU36×100	GNU36×120
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
Table size	mm	3000×5000	3000×6000	3000×8000	3000×10000	3000×12000
Table loading	t	28	35	40	50	60
T slot size		28×200×14	28×200×14	28×200×14	28×200×14	28×200×14
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.024/0.018	0.028/0.024/0.018	0.032/0.024/0.018	0.038/0.024/0.018	0.052/0.024/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.020/0.012	0.020/0.020/0.012	0.022/0.020/0.012	0.030/0.020/0.012	0.036/0.020/0.012
<b>» Other</b>						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	76	83	101	118	134
Machine size(L×W×H)	mm	15000×6200×6950	17000×6200×6950	21000×6200×6950	29000×6200×6950	32000×6200×6950

## Standard Configuration

1. Contoller: 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GNU

Items	Unit	GNU42×50	GNU42×60	GNU42×80	GNU42×100	GNU42×120
<b>» Machining Capacity</b>						
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
<b>» Table</b>						
Table size	mm	3500×5000	3500×6000	3500×8000	3500×10000	3500×12000
Table loading	t	22	30	35	45	55
T slot size		36×250×20	36×250×24	36×250×32	36×250×40	36×250×48
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.028/0.018	0.028/0.028/0.018	0.032/0.028/0.018	0.038/0.028/0.018	0.052/0.028/0.018
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.022/0.012	0.020/0.022/0.012	0.022/0.022/0.012	0.030/0.022/0.012	0.036/0.022/0.012
<b>» Other</b>						
Power capacity	kVA	80	80	80	80	80
Machine weight	t	86	96	119	135	151
Machine size(L×W×H)	mm	15000×7100×6950	17000×7100×6950	21000×7100×6950	29000×7100×6950	32000×7100×6950

## Standard Configuration

1. Contoller: 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

## Option Configuration

1. Contoller: SIEMENS 828D
2. Column heighten 200/400/600/800mm
3. Y travel extended
4. 40/60/90 V&H tool magazine
5. CTS (2/3-6MPa)
6. NC rotary table
7. Full enclosure
8. Linear scale
9. Auto milling heads
10. Two-station rotary head stock
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GRUE

Items	Unit	GRU25E×40	GRU25E×50	GRU25E×60	GRU30E×40	GRU30E×50
<b>» Machining Capacity</b>						
X travel	mm	4200	5500	6500	4200	5500
Y travel	mm	3400	3400	3400	4000	4000
Z travel	mm	1000	1000	1000	1000	1000
W travel (50×250multi bit fixed point)	mm	1250	1250	1250	1250	1250
Distance between columns	mm	2600	2600	2600	3200	3200
Spindle nose to table surface	mm	200-2450	200-2450	200-2450	100-2350	100-2350
<b>» Table</b>						
Table size	mm	2000×4000	2000×5000	2000×6000	2500×4000	2500×5000
Table loading	t	18	22	25	20	25
T slot size		22×200×9	22×200×9	22×200×9	28×200×12	28×200×12
<b>» Feed</b>						
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	12/15/10	10/15/10	10/15/10	12/15/10	10/15/10
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.025/0.030/0.020	0.028/0.032/0.020	0.028/0.032/0.020	0.025/0.030/0.020	0.028/0.032/0.020
Repeat Positioning accuracy X/Y/Z	mm	0.018/0.020/0.015	0.018/0.022/0.015	0.020/0.022/0.015	0.018/0.020/0.015	0.018/0.022/0.015
<b>» Other</b>						
Power capacity	kVA	90	90	90	90	90
Machine weight	t	70	77	84	82	90
Machine size(L×W×H)	mm	12500×8800×7900	15000×8800×7900	17000×8800×7900	12500×9400×7900	15000×9400×7900

## Standard Configuration

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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 500mm
3. W axis positioning at any point
4. Three-speed gearbox
5. 40/60 V&H tool magazine
6. CTS (2/3-6MPa)
7. NC rotary table
8. Full enclosure
9. Linear scale
10. Auto milling heads
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet

# GRUE

Items	Unit	GRU30E×60	GRU30E×80	GRU35E×50	GRU35E×60	GRU35E×80
<b>» Machining Capacity</b>						
X travel	mm	6500	8500	5500	6500	8500
Y travel	mm	4000	4000	4600	4600	4600
Z travel	mm	1000	1000	1000	1000	1000
W travel (50×250multi bit fixed point)	mm	1250	1250	1250	1250	1250
Distance between columns	mm	3200	3200	3800	3800	3800
Spindle nose to table surface	mm	100-2350	100-2350	50-2300	50-2300	50-2300
<b>» Table</b>						
Table size	mm	2500×6000	2500×8000	3000×5000	3000×6000	3000×8000
Table loading	t	28	35	28	35	40
T slot size		28×200×12	28×200×12	28×200×14	28×200×14	28×200×14
<b>» Feed</b>						
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
<b>» Spindle</b>						
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
<b>» Tool Magazine (Option)</b>						
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
<b>» Precision ( GB/T19362.1-2003)</b>						
Positioning accuracy X/Y/Z	mm	0.028/0.032/0.020	0.035/0.032/0.020	0.028/0.032/0.020	0.028/0.032/0.020	0.035/0.032/0.020
Repeat Positioning accuracy X/Y/Z	mm	0.020/0.022/0.015	0.025/0.022/0.015	0.018/0.022/0.015	0.020/0.022/0.015	0.025/0.022/0.015
<b>» Other</b>						
Power capacity	kVA	90	90	90	90	90
Machine weight	t	98	112	97	104	122
Machine size(L×W×H)	mm	17000×9400×7900	23000×9400×7900	15000×10000×7900	17000×10000×7900	23000×10000×7900

## Standard Configuration

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

## Option Configuration

1. Controller: SIEMENS 828D
2. Column heighten 500mm
3. W axis positioning at any point
4. Three-speed gearbox
5. 40/60 V&H tool magazine
6. CTS (2/3-6MPa)
7. NC rotary table
8. Full enclosure
9. Linear scale
10. Auto milling heads
11. Tool setter
12. Workpiece probe
13. Oil skimmer
14. Water gun
15. Air gun
16. AC for electrical cabinet



# GKUE

Items	Unit	GKU35E×60	GKU35E×80	GKU35E×100	GKU35E×120
<b>» Machining Capacity</b>					
X travel	mm	6500	8500	10500	12500
Y travel	mm	4400	4400	4400	4400
Z travel	mm	1250	1250	1250	1250
W travel	mm	2250	2250	2250	2250
Distance between columns	mm	3500	3500	3500	3500
Spindle nose to table surface	mm	150-3000	150-3000	150-3000	150-3000
<b>» Table</b>					
Table size	mm	3000×6000	3000×8000	3000×10000	3000×12000
Table loading	t	60	80	100	120
T slot size		36×250×11	36×250×32	36×250×40	36×250×48
<b>» Feed</b>					
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	10/10/10/2	10/10/10/2	10/10/10/2	10/10/10/2
<b>» Spindle</b>					
Max. spindle speed	rpm	2000	2000	2000	2000
Spindle power	kW	37/51	37/51	37/51	37/51
Spindle torque	N.m	1890/2605	1890/2605	1890/2605	1890/2605
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	500×500	500×500	500×500	500×500
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.040 / 0.032 / 0.020	0.045 / 0.032 / 0.020	0.045 / 0.032 / 0.020	0.060 / 0.032 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.025 / 0.022 / 0.015	0.030 / 0.022 / 0.015	0.030 / 0.022 / 0.015	0.036 / 0.022 / 0.015
<b>» Other</b>					
Power capacity	kVA	125	125	125	125
Machine weight	t	160	190	215	240
Machine size(L×W×H)	mm	19000×10000×9300	25000×10000×9300	29500×10000×9300	33500×10000×9300

## Standard Configuration

1. Controller: SINUMERIK ONE
2. Gear box drive
3. W, Z-axis hydraulic balance system
4. X, Y-axis hydrostatic guide rail
5. Spindle oil chiller
6. Pneumatic, hydraulic and lubrication system
7. X, Y, W fully closed loop grating ruler
8. Simple splash guard
9. Automatic internal chip removal
10. Cutting cooling
11. 3-color signal lamp, working light
12. Standard accessories
13. Maintenance tools

# GNUM

Items	Unit	GNU40M×90	GNU40M×110	GNU40M×130	GNU40M×150
<b>» Machining Capacity</b>					
X travel	mm	9000	11000	13000	15000
Y travel	mm	4400	4400	4400	4400
Z travel	mm	1250	1250	1250	1250
Distance between columns	mm	4100	4100	4100	4100
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400
<b>» Table</b>					
Table size	mm	3000×8000	3000×10000	3000×12000	3000×14000
Table loading	t/m	15	15	15	15
T slot size	mm	28×250	28×250	28×250	28×250
<b>» Feed</b>					
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	10/15/10	10/15/10
<b>» Spindle</b>					
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
<b>» Tool Magazine (Option)</b>					
Tool magazine capacity	T	40/60	40/60	40/60	40/60
Knife handle form		BT50	BT50	BT50	BT50
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	25	25	25	25
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.037 / 0.020	0.055 / 0.037 / 0.020	0.065 / 0.037 / 0.020	0.070 / 0.037 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.022 / 0.025 / 0.013	0.025 / 0.025 / 0.013	0.028 / 0.025 / 0.013	0.031 / 0.025 / 0.013
<b>» Other</b>					
Power capacity	kVA	85	85	85	85
Machine weight	t	95	108	120	131
Machine size(L×W×H)	mm	18000×10000×7300	20000×10000×7300	22000×10000×7300	24000×10000×7300

## Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Z-axis hydraulic balance system
4. Spindle oil chiller
5. Pneumatic, hydraulic and lubrication system
6. X, fully closed loop grating ruler
7. Double column follow-up operation room
8. Chain type chip removal device on both sides
9. Cutting cooling
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools



# GNUM

Items	Unit	GNU50M×90	GNU50M×110	GNU50M×130	GNU50M×150
<b>» Machining Capacity</b>					
X travel	mm	9000	11000	13000	15000
Y travel	mm	5400	5400	5400	5400
Z travel	mm	1250	1250	1250	1250
Distance between columns	mm	5100	5100	5100	5100
Spindle nose to table surface	mm	150-1400	150-1400	150-1400	150-1400
<b>» Table</b>					
Table size	mm	4000×8000	4000×10000	4000×12000	4000×14000
Table loading	t/m	20	20	20	20
T slot size	mm	28×250	28×250	28×250	28×250
<b>» Feed</b>					
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	10/15/10	10/15/10
<b>» Spindle</b>					
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
<b>» Tool Magazine (Option)</b>					
Tool magazine capacity	T	40/60	40/60	40/60	40/60
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	400	400	400	400
Max. tool weight	kg	25	25	25	25
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.042 / 0.020	0.055 / 0.042 / 0.020	0.065 / 0.042 / 0.020	0.070 / 0.042 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.022 / 0.025 / 0.013	0.025 / 0.025 / 0.013	0.028 / 0.025 / 0.013	0.031 / 0.025 / 0.013
<b>» Other</b>					
Power capacity	kVA	85	85	85	85
Machine weight	t	99	112	124	135
Machine size(L×W×H)	mm	18000×11000×7300	20000×11000×7300	22000×11000×7300	24000×11000×7300

## Standard Configuration

1. Controller: FANUC 0i MF PLUS
2. Gear box drive
3. Z-axis hydraulic balance system
4. Spindle oil chiller
5. Pneumatic, hydraulic and lubrication system
6. X fully closed loop grating ruler
7. Double column follow-up operation room
8. Chain type chip removal device on both sides
9. Cutting cooling
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools

# GKUM

Items	Unit	GKU40M×90	GKU40M×110	GKU40M×130	GKU40M×150
<b>» Machining Capacity</b>					
X travel	mm	9000	11000	13000	15000
Y travel	mm	4500	4500	4500	4500
Z travel	mm	1500	1500	1500	1500
Distance between columns	mm	4100	4100	4100	4100
Spindle nose to table surface	mm	150-1650	150-1650	150-1650	150-1650
<b>» Table</b>					
Table size	mm	3000×8000	3000×10000	3000×12000	3000×14000
Table loading	t/m	15	15	15	15
T slot size	mm	28×250	28×250	28×250	28×250
<b>» Feed</b>					
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	10/10/10	10/10/10	10/10/10	10/10/10
<b>» Spindle</b>					
Max. spindle speed	rpm	2000	2000	2000	2000
Spindle power	kW	37/51	37/51	37/51	37/51
Spindle torque	N.m	1890/2605	1890/2605	1890/2605	1890/2605
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	500×500	500×500	500×500	500×500
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.028 / 0.020	0.055 / 0.028 / 0.020	0.060 / 0.028 / 0.020	0.070 / 0.028 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.035 / 0.018 / 0.013	0.040 / 0.018 / 0.013	0.045 / 0.018 / 0.013	0.050 / 0.018 / 0.013
<b>» Other</b>					
Power capacity	kVA	150	150	150	150
Machine weight	t	112	124	136	148
Machine size(L×W×H)	mm	18000×10000×7700	20000×10000×7700	22000×10000×7700	24000×10000×7700

## Standard Configuration

1. Controller: SINUMERIK ONE
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. X-Y-axis fully closed loop grating ruler
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools
13. Y-axis hydrostatic guide rail





# GKUM

Items	Unit	GKU50M×90	GKU50M×110	GKU50M×130	GKU50M×150
<b>» Machining Capacity</b>					
X travel	mm	9000	11000	13000	15000
Y travel	mm	5500	5500	5500	5500
Z travel	mm	1500	1500	1500	1500
Distance between columns	mm	5100	5100	5100	5100
Spindle nose to table surface	mm	150-1650	150-1650	150-1650	150-1650
<b>» Table</b>					
Table size	mm	4000×8000	4000×10000	4000×12000	4000×14000
Table loading	t/m	20	20	20	20
T slot size		28×250	28×250	28×250	28×250
<b>» Feed</b>					
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	10/10/10	10/10/10	10/10/10	10/10/10
<b>» Spindle</b>					
Max. spindle speed	rpm	2000	2000	2000	2000
Spindle power	kW	37/51	37/51	37/51	37/51
Spindle torque	N.m	1890/2605	1890/2605	1890/2605	1890/2605
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	500×500	500×500	500×500	500×500
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.031 / 0.020	0.055 / 0.031 / 0.020	0.060 / 0.031 / 0.020	0.070 / 0.031 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.035 / 0.020 / 0.013	0.040 / 0.020 / 0.013	0.045 / 0.020 / 0.013	0.050 / 0.020 / 0.013
<b>» Other</b>					
Power capacity	kVA	150	150	150	150
Machine weight	t	124	136	148	160
Machine size(L×W×H)	mm	18000×11000×7700	20000×11000×7700	22000×11000×7700	24000×11000×7700

## Standard Configuration

1. Controller: SINUMERIK ONE
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. X, Y-axis fully closed loop grating ruler
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools
13. Y-axis hydrostatic guide rail

# GKUME

Items	Unit	GKU40ME×90	GKU40ME×110	GKU50ME×130	GKU50ME×150
<b>» Machining Capacity</b>					
X travel	mm	9000	11000	13000	15000
Y travel	mm	5000	5000	6000	6000
Z travel	mm	1250	1250	1250	1250
W travel	mm	2250	2250	2250	2250
Distance between columns	mm	4100	4100	5100	5100
Spindle nose to table surface	mm	100-3400	100-3400	100-3400	100-3400
<b>» Table</b>					
Table size	mm	3000×8000	3000×10000	4000×12000	4000×14000
Table loading	t/m	15	15	20	20
T slot size		28×250	28×250	28×250	28×250
<b>» Feed</b>					
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	10/10/10/2	10/10/10/2	10/10/10/2	10/10/10/2
<b>» Spindle</b>					
Max. spindle speed	rpm	2000	2000	2000	2000
Spindle power	kW	37/51	37/51	37/51	37/51
Spindle torque	N.m	1890/2605	1890/2605	1890/2605	1890/2605
Spindle taper		BT50	BT50	BT50	BT50
Ram section	mm	500×500	500×500	500×500	500×500
<b>» Tool Magazine (Option)</b>					
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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.028 / 0.020	0.055 / 0.028 / 0.020	0.060 / 0.031 / 0.020	0.070 / 0.031 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.035 / 0.018 / 0.015	0.040 / 0.018 / 0.015	0.045 / 0.020 / 0.015	0.050 / 0.020 / 0.015
<b>» Other</b>					
Power capacity	kVA	175	175	175	175
Machine weight	t	161	173	200	212
Machine size(L×W×H)	mm	18500×10000×8800	20500×10000×8800	22500×11000×8800	24500×11000×8800

## Standard Configuration

1. Controller: SINUMERIK ONE
2. Gear box drive
3. Spindle oil chiller
4. W,Z axis hydraulic balance system
5. Pneumatic, hydraulic and lubrication system
6. Cutting cooling
7. Automatic internal chip removal
8. X, Y,W-axis fully closed loop grating ruler
9. Simple splash guard
10. 3-color signal lamp, working light
11. Standard accessories
12. Maintenance tools
13. Y-axis hydrostatic guide rail



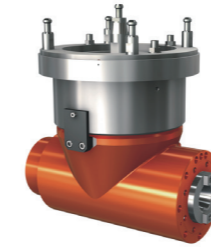
# KMU

Items	Unit	KMU2090	KMU2590	KMU3090	KMU3590
<b>» Machining Capacity</b>					
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
<b>» Table</b>					
Table size	mm	2000x8000	2500x8000	3000x8000	3500x8000
Table loading	t/m <sup>2</sup>	5	5	5	5
T slot size		28x250 (Y direction)	28x250 (Y direction)	28x250 (Y direction)	28x250 (Y direction)
<b>» Feed</b>					
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
<b>» Spindle</b>					
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	420x430	420x430	420x430	420x430
<b>» Tool Magazine (Option)</b>					
Knife handle form		BT50	BT50	BT50	BT50
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
Capacity of vertical and horizontal knife magazine	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
<b>» Precision ( GB/T19362.1-2003)</b>					
Positioning accuracy X/Y/Z	mm	0.045 / 0.032 / 0.020	0.045 / 0.032 / 0.020	0.045 / 0.037 / 0.020	0.045 / 0.037 / 0.020
Repeat Positioning accuracy X/Y/Z	mm	0.022 / 0.022 / 0.013	0.022 / 0.022 / 0.013	0.022 / 0.025 / 0.013	0.022 / 0.025 / 0.013
<b>» Other</b>					
Power capacity	kVA	100	100	100	100
Machine weight	t	85	88	92	97
Machine size(LxWxH)	mm	16500x8100x5700	16500x8500x5700	16500x9100x5700	16500x9500x5700

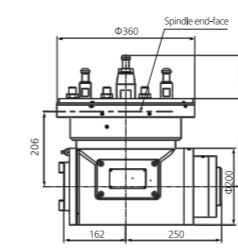
## Standard Configuration

- |  |   |   |
|--|---|---|
| 1. Controller: FANUC 0i MF PLUS                                | 6. Spindle protection front air seal            | 11. Portable operation handheld unit box          |
| 2. Gear box drive  | 7. Z-axis hydraulic balance system              | 12. X-axis liner scale                            |
| 3. Spindle oil chiller   | 8. Cutting cooling                              | 13. 3-color signal lamp, working light            |
| 4. Centralized lubrication and lubricating oil recovery device | 9. Chain type chip removal device on both sides | 14. Gantry axis moving drag chain elevated device |
| 5. Pneumatic and hydraulic systems                             | 10. Gantry follow-up operation room             | 15. Maintenance tools                             |

## Attachment For Various Application



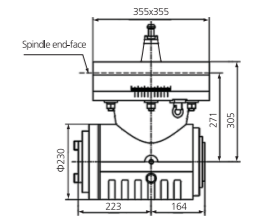
90° auto milling head



Max Power: 20kW  
Max Speed: 2000rpm



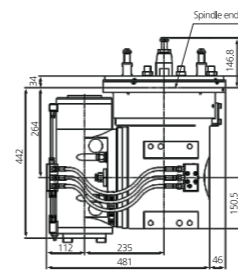
90° manual milling head



Max Power:20kW  
Max Speed: 2000rpm



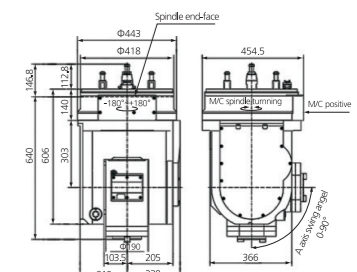
Semi auto 3+2 milling head



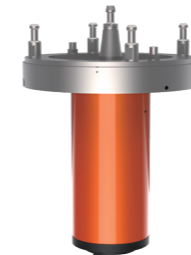
Max Power: 20kW  
Max Speed: 2000rpm



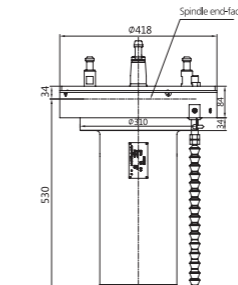
Auto 3+2 milling head



Max Power: 15kW  
Max Speed: 4000rpm



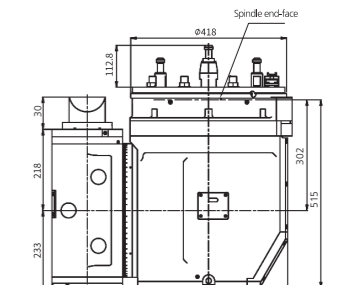
Automatic extended milling head



Max Power: 25kW  
Max Speed: 2000rpm



Automatic universal milling head



Max Power: 22kW  
Max Speed: 4000rpm

## Automatic Attachment Charger



Two-station rotary head stock



Attachment Head Bracket