

DOUBLE COLUMN MACHINING CENTERS



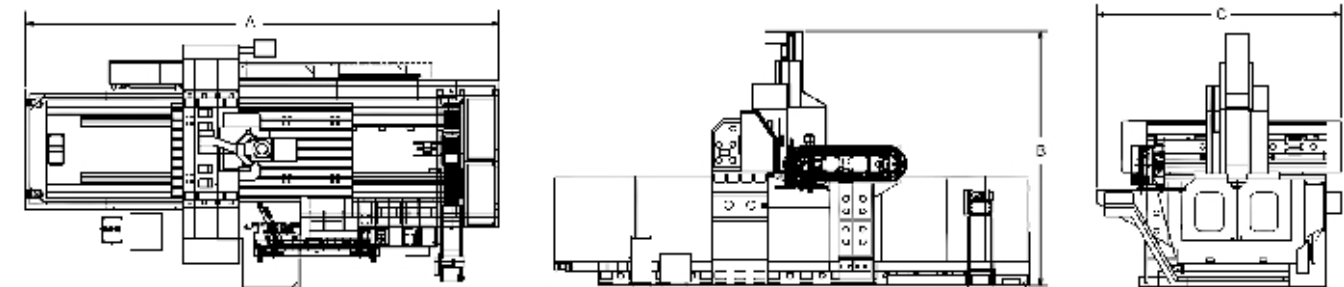
• 18 SERIES KMV-32P

Optional enclosed splash guard (package B)

• 25 SERIES KMV-4225

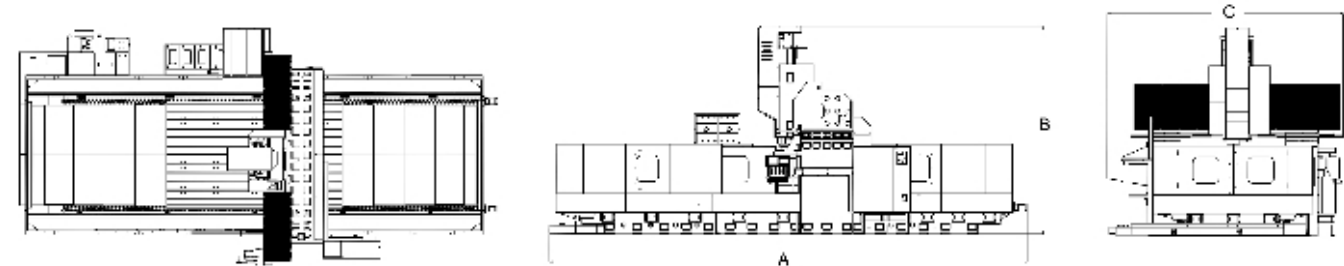
Optional fully enclosed splash guard (package A)

LAYOUT



	KMV-22P	KMV-32P	KMV-42P	KMV-52P
A	6170	8452	10443	12430
B	4518	4518	4518	4518
C	4330	4330	4330	4330

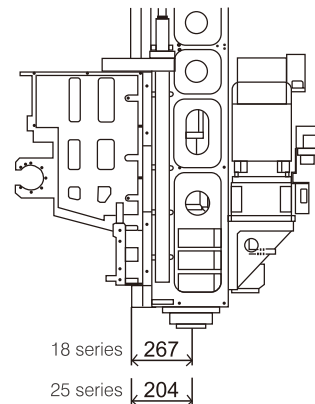
LAYOUT



	KMV-4225	KMV-5225	KMV-6225
A	10756	12745	14745
B	4917	4917	4917
C	5823	5823	5823

FEATURES

SIZE AVAILABLE FROM 2200 x 1650mm up to 6000 x 2450mm



Box Way Structure of Z Axis

The Z axis is built with tough cast iron box way construction. Meticulously designed for heavy duty machining with FEA integrated in design stage, the structure is cast of premium materials reinforced with rugged internal rib support.

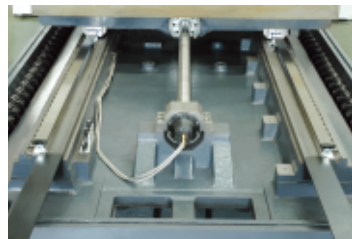
Highly Rigid Spindle Nose

Distance from spindle nose to Z axis slideway is 267mm for 18 series and 204mm for 25 series; the short distance design is excellent to reduce the bending and torsion effects induced by head weight and cutting forces.

Wide Spanned Ladder Type Cross Beam at Y axis

Ultra wide ladder type cross beam with dual linear guide ways can handle increased inertia. This design ensures rigidity of the spindle; especially during heavy duty cutting, the spindle nose remains perfectly stable.

Heavy Load Linear Guides



Both X and Y axes are equipped with high precision heavy duty LM guide ways for better movement resolution and easier precision control during machining mid to large size workpieces.

Ergonomic Controls

The control panel positioning is adjustable so that operators get the most advantageous viewpoint throughout various stages of processing. This facilitates any necessary adjustments and guarantees exact results.

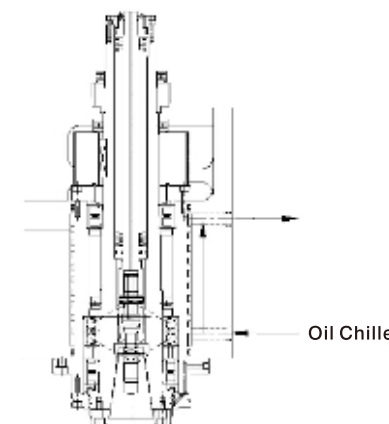
Nitro-Counter balance

The head stock is counter balanced with nitrogen in conjunction with dual pneumatic cylinders. A universal joint installed on each cylinder ensures smooth movement. Even in case of a sudden power failure, the head maintains exact positioning to preserve the tool life and keep the workpiece undamaged.

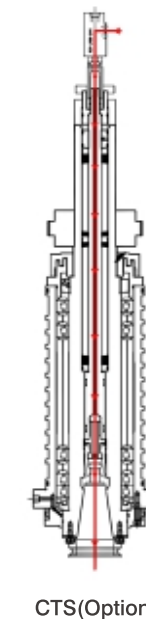
Dual Section ZF Gear Box

The multi-speed spindle adopts German ZF gear box, which is very efficient with characteristics of high torque, low noise, and long service life. Fully sealed immersion type lubrication with oil chiller to keep the machine running cool even at 10,000 rpm.

Spindle Unit



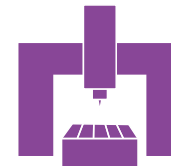
Coolant system protects against heat distortion during heavy cutting at high speeds.



High rigidity casting

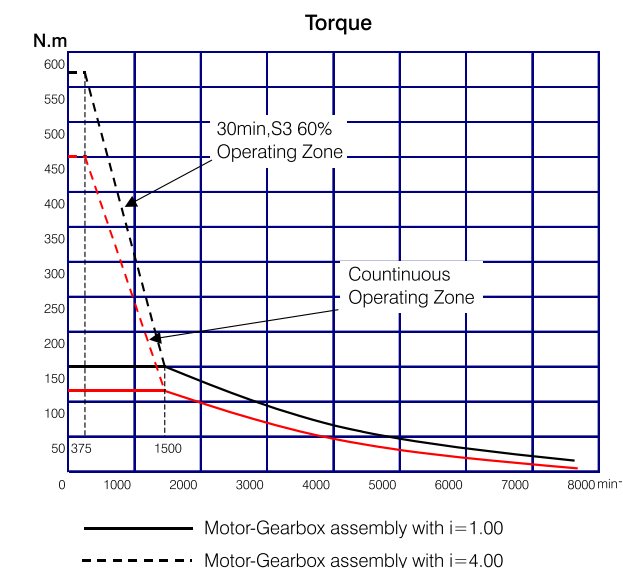
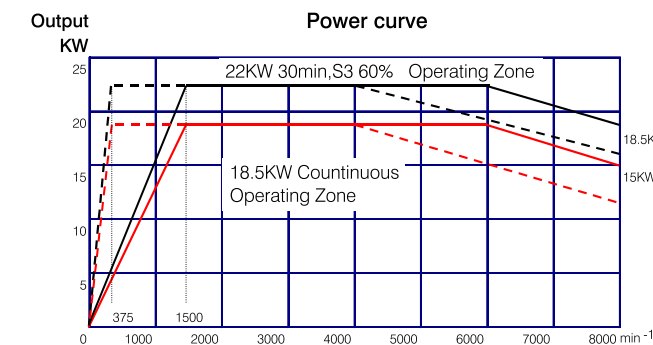
The machine base, columns, cross beam, table, slideways, head and all castings are made of top grade cast iron and subjected to annealing to eliminate internal stresses and prevent deformation. This provides rigidity throughout the machine with excellent resistance against all machining forces.

DOUBLE COLUMN MACHINING CENTERS



SPINDLE MOTOR HORSEPOWER AND TORQUE CHART

Type: $\alpha 18/7000i$



STANDARD ACCESSORIES

1. Fanuc Oi-MD package 1 - 8.4" LCD-Monitor
2. Spindle speed BT50-4500 rpm
3. Oil chiller for 3 axes and spindle
4. Z.F. Dual section gear box
5. Splash guard (package C)
6. Convection heat exchange electric box
7. Separate hand wheels (MPG)
8. RS-232 interface
9. Rigid tapping
10. Working light
11. Process cycle pilot light
12. Coolant system
13. Transformer
14. Dual screw type chip conveyers+ chain type chip conveyor
15. Tools and tool box
16. Adjustable base leveling pads
17. Operation manual and electrical diagrams
18. Air blower

OPTIONS

1. #50 6000, 8000 rpm spindle
2. #40 8000, 12000, 15000 rpm spindle
3. CTS (Coolant through spindle) 6 bar, 20 bar, 30 bar
4. Arm type tool magazine (32/60 tools) with ATC
5. Universal milling head
6. 90 degree milling head
7. Extended head 300mm
8. 3 axes linear scales
9. Riser block 200 or 400mm
10. Enclosed splash guard (package B)
11. Fully enclosed splash guard (package A)

LUBRICATION

Precision scraped Turcite wear resistant plates provide an even film of lubricant on all contact surfaces which eliminates both drifting at high speed traverse and sluggish cut feed acceleration.



OIL CHILLER

The spindle and ball screws at all three axes are cooled by recirculated oil which passes through an oil chiller, dispelling heat deformation, extending the life of spindle bearings and guaranteeing accurate stability at each axis.



OPTIONAL 90 DEGREE HEAD

Options for 5-faces milling: Manual 90 degree milling head and Semi-auto 90 degree milling head with indexing every 5 degree.



SPECIFICATIONS						
TECHNICAL DATA		Unit	KMV-22P	KMV-32P	KMV-42P	KMV-52P
Table	Table size	mm	2200 x 1650	3200 x 1650	4200 x 1650	5200 x 1650
	Rotary table size	mm	850	850	850	850
	Table surface (T slot)		22 x 170 x 9	22 x 170 x 9	22 x 170 x 9	22 x 170 x 9
	Table load capacity	kg	6000	8000	9000	12000
Travel	X axis	mm	2200	3200	4200	5200
	Y axis	mm	2000	2000	2000	2000
	Z axis	mm	900	900	900	900
	Table surface to spindle nose	mm	40 ~ 940	40 ~ 940	40 ~ 940	40 ~ 940
Spindle	Between Columns	mm	2070	2070	2070	2070
	Spindle taper		NO.50(7/24)	NO.50(7/24)	NO.50(7/24)	NO.50(7/24)
	Max. spindle speed	r.p.m	4500	4500	4500	4500
	Spindle output (S2-10min)	kW	18.5 / 22	18.5 / 22	18.5 / 22	18.5 / 22
Motor	Spindle torque (S3-15%)	Nm	117	117	117	117
	Spindle transmission		belt	belt	belt	Belt
	Motor output X	kW	4+Gear reducer (1:4)	4+Gear reducer (1:4)	4+Gear reducer (1:4)	4+Gear reducer (1:4)
	Motor output Y	kW	7	7	7	7
Tooling	Motor output Z	kW	7	7	7	7
	Tool shank type		BT50	BT50	BT50	BT50
	Tool selection		Bi-direction	Bi-direction	Bi-direction	Bi-direction
	Magazine positions		32	32	32	32
Feedrate	Max. tool diameter	mm	ø125	ø125	ø125	ø125
	Max. tool length	mm	350	350	350	350
	Max. tool weight	kg	18	18	18	18
	Rapid traverse X/Y/Z	m/min	10 / 12 / 12	10 / 12 / 12	10/12/12	10/12/12
Accuracy	Cutting feedrate X/Y/Z	mm/min	1-10000	1-10000	1-10000	1-10000
	Positioning X, Y, Z	mm	±0.005 / 300	±0.005 / 300	±0.005 / 300	±0.005/300
	Repeatability X, Y, Z	mm	±0.005 / 300	±0.005 / 300	±0.005 / 300	±0.005 / 300
	VDI 3441	mm	0.02 / ø300	0.02 / ø300	0.02 / ø300	0.02 / ø300
Hydraulic unit	Pump flow rate	l/min	25	25	25	25
	Pump / System pressure	bar	45	45	45	45
	Tank capacity	liter	10	10	10	10
	Pump flow rate	cc/min	300	300	300	300
Lubrication unit	Pump pressure	bar	12-15	12-15	12-15	12-15
	Tank capacity	liter	8	8	8	8
	Lubricant		G-68	G-68	G-68	G-68
	Pump motor output	kW	0.91	0.91	0.91	0.91
Coolant system	Tank capacity	liter	500	500	500	500
	Height	mm	4518	4518	4518	4518
	Floor space L x W	mm	6170 x 4330	8452 x 4330	10443x4330	12430x4330
	Weight	kg	32500	37370	42500	44000
Connections	CNC		FANUC / MITSUBISHI			
	Main power					
	Power consumption	kVA	40	40	40	40

REMARK: the data listed above are only for reference of FANUC standard, and the manufacturer retains the right to change the machine design, mechanical specifications and mechanical structure.

OTHER

PRODUCTS



KGP-1542
Double Column Surface Grinder



KGS-510AHD
Surface Grinder



KGS-84WMA2
Surface Grinder-
Wizard Series



KGC-3080CNC
Universal Cylindrical Grinder



Head office(Taiwan)
Area:1,700m²
Employees:40



Dou Liu Factory(Taiwan)
Area:16,700m²
Employees:100



Zhejiang Radiance Machinery Co., Ltd.(China)
Area:33,000m²
Employees:300

KENT

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LOCAL AGENT

KENT

KENT INDUSTRIAL CO.,LTD.

SINCE 1966

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DOUBLE COLUMN CNC MACHINING CENTER



www.kentind.com



SPECIFICATIONS					
TECHNICAL DATA		Unit	KMV-4225	KMV-5225	KMV-6225
Table	Table size	mm	4000 × 2450	5000 × 2450	6000 × 2450
	Rotary table size	mm	950	950	950
	Table surface (T slot)		22x200x11 + 22x150x2	22x200x11 + 22x150x2	22x200x11 + 22x150x2
	Table load capacity	kg	15000	18000	20000
Travel	X axis	mm	4200	5200	6200
	Y axis	mm	2700	2700	2700
	Z axis	mm	900	900	900
	Table surface to spindle nose	mm	150 ~ 1050	150 ~ 1050	150 ~ 1050
	Between Columns	mm	2750	2750	2750
Spindle	Spindle taper		No. 50 (7/24)	No. 50 (7/24)	No. 50 (7/24)
	Max. spindle speed	r.p.m	4500	4500	4500
	Spindle output (S2-10min)	kW	18.5/22	18.5/22	18.5/22
	Spindle torque (S3-15%)	Nm	117	117	117
	Spindle transmission		belt	belt	belt
Motor	Motor output X	kW	9+Gear reducer(1:4)	9+Gear reducer(1:4)	9+Gear reducer(1:4)
	Motor output Y	kW	7	7	7
	Motor output Z	kW	7	7	7
Tooling	Tool shank type		BT 50	BT 50	BT 50
	Tool selection		Bi-direction	Bi-direction	Bi-direction
	Magazine positions		32	32	32
	Max. tool diameter	mm	ø 125	ø 125	ø 125
	Max. tool length	mm	350	350	350
	Max. tool weight	kg	18	18	18
Feedrate	Rapid traverse X/Y/Z	m/min	10/12/12	10/12/12	10/12/12
	Cutting feedrate X/Y/Z	mm/min	1-10000	1-10000	1-10000
Accuracy Positioning / Repeatability	Positioning X, Y, Z	mm	±0.005/300	±0.005/300	±0.005/300
	Repeatability X, Y, Z	mm	±0.005/300	±0.005/300	±0.005/300
	VDI 3441	mm	0.02/ø300	0.02/ø 300	0.02/ø 300
Hydraulic unit	Pump flow rate	ℓ/min	25	25	25
	Pump / System pressure	bar	45	45	45
	Tank capacity	liter	10	10	10
Lubrication unit	Pump flow rate	cc/min	300	300	300
	Pump pressure	bar	12-15	12-15	12-15
	Tank capacity	liter	8	8	8
	Lubricant		G-68	G-68	G-68
Coolant system	Pump motor output	kW	0.91	0.91	0.91
	Tank capacity	liter	500	500	500
Machine size	Height	mm	4917	4917	4917
	Floor space L x W	mm	10756 × 5823	12745 × 5823	14745 × 5823
	Weight	kg	48000	51000	78000
Connections	CNC		FANUC / MITSUBISHI		
	Main power				
	Power consumption	kVA	45	45	45

REMARK: the data listed above are only for reference of FANUC standard, and the manufacturer retains the right to change the machine design, mechanical specifications and mechanical structure.