

KAMIOKA

KAMIOKA

Your Reliable Friend in Metalworking

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VERTICAL MACHINING CENTER

VMC-800

VMC-1000

LG-2500



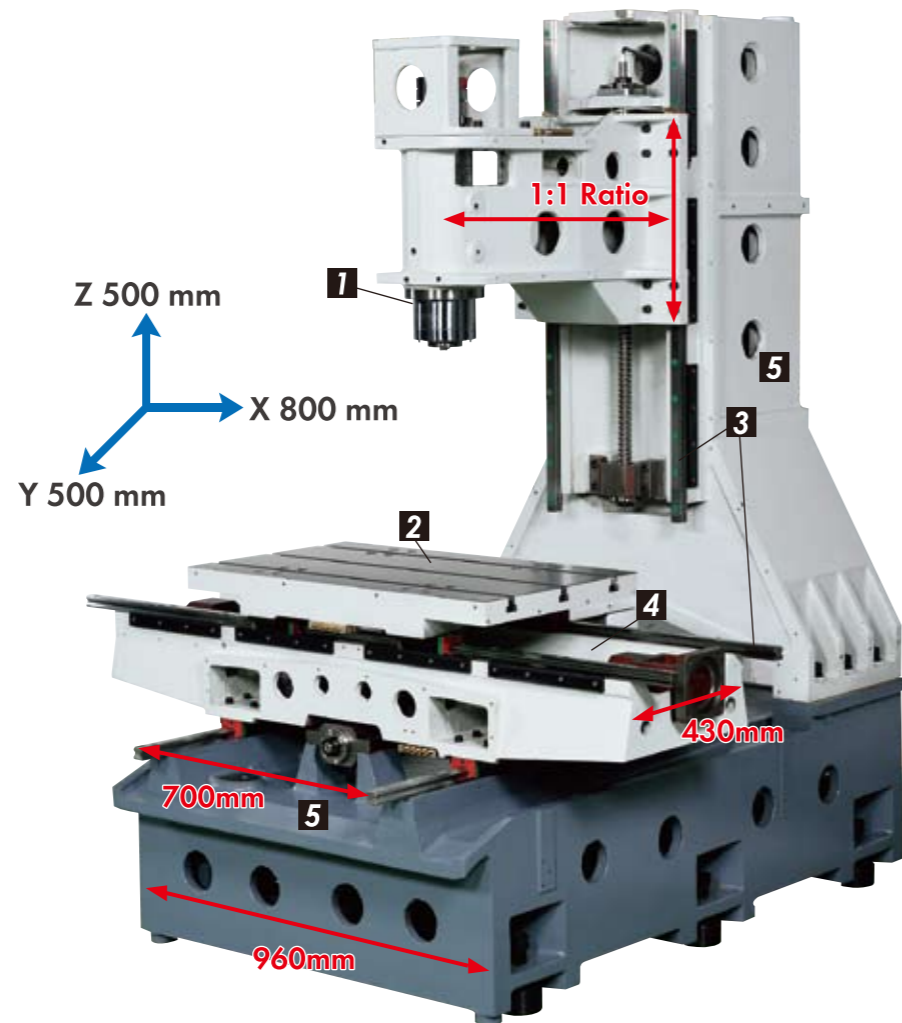
VMC-800

High Speed Vertical Machining Center



High Precision 10,000rpm Spindle

The robust KAMIOKA direct-drive spindle is strictly made and tested in house. The simplified structure offers a good dynamic rotary accuracy and low vibration for high precision machining purposes.



- 1** Powerful inline direct-drive spindle for better acceleration and power transmission
- 2** Weight relief working table and saddle for faster traverse and loading balance
- 3** Selected heavy-duty linear motion guideways on all 3 axes
- 4** Preloaded large diameter ball-screws for higher rigidity
- 5** Large span cast iron construction for better machining performance and reliability

A Compact Cube with Unmatched Cost-Effective Performance

VMC-800 is one of most popular models because this machine could easily take on any machining job shop challenges with highest possible return on investment. Its concise design and rock-solid machine construction bring the exceptional performance and reliability that make it miles ahead of any other in their price point.

CUTTING CAPABILITY

Tool	Material	Material Removal Rate
	FACE MILLING S45C Steel	135 cc/min.
	END MILLING Aluminum	120 cc/min.
	TAPPING S45C Steel TAP	M16
	DRILLING Aluminum	35 mm

Tool	Ø80
Spindle Speed	1,200 rpm
Feedrate	750 mm/min.
Width of Cut	60 mm
Depth of Cut	3 mm

Tool	Ø30
Spindle Speed	4,500 rpm
Feedrate	2,000 mm/min.
Width of Cut	2 mm
Depth of Cut	30 mm

Tool	M16
Spindle Speed	300 rpm
Feedrate	600 mm/min.

Tool	Ø35
Spindle Speed	1,200 rpm
Feedrate	180 mm/min.

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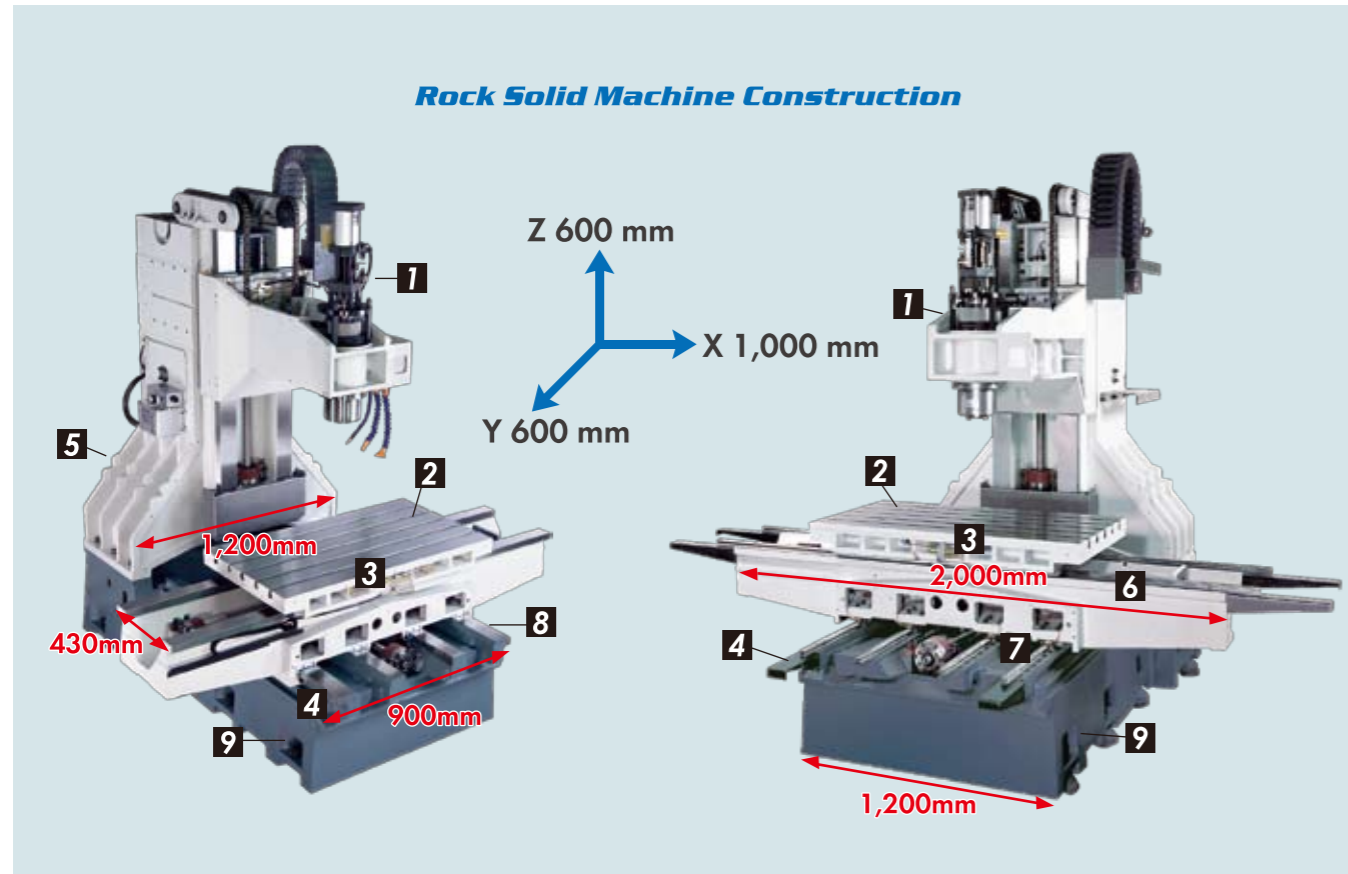
	ITEM	UNIT	FORMULA VMC-800	
TABLE	Table Size	mm inch	800x480	31.5x18.9
	T-slots (CDxWxNO)		160x18mmx3T	
	Table Load (Max.)	kg lbs	500	1,100
TRAVEL	X/Y/Z	mm inch	800/500/500	31.5/19.7/19.7
	Spindle Nose to Table Surface	mm inch	120~620	4.7~24.4
SPINDLE	Max. Speed	rpm	BT40, Direct 10,000	
	Motor	KW HP	7.5/11 FANUC	10/15 FANUC
FEEDRATE	Rapid Traverse X/Y/Z	m/min ipm	30/30/24	1,181/1,181/945
ATC	Tool Capacity	Tool	BT40, Arm 24	
	Max. Tool Dia. x Length	mm inch	ø75x250	ø3x9.8
	Max. Tool Weight	kg lbs	7	15.4
GENERAL	Dimension (LxWxH)	mm inch	2,650x2,200x2,550	104x87x100
	Weight	kg lbs	4,000	8,800

STANDARD EQUIPMENT

- Full Enclosure Splash Guard
- Cutting Coolant Unit
- Auto Lubrication System
- Air Blast Through Spindle Taper
- Spindle Oil Chiller
- Heat Exchanger in Electric Cabinet
- Disk Type Oil Skimmer
- Spiral Type Chip Conveyor & Bucket
- Coolant Gun
- LED Lamp & Alarm Indicator
- Service Tools & Leveling Bolts
- Manual Pulse Generator

VMC-1000

High Performance Vertical Machining Center



Box Way X, Y, Z

Linear Way X, Y, Box Way Z

VMC-1000 has been examined and proved by its reliability and performance over time from various kinds of users worldwide. This machine is definitely the KAMIOKA classic model that you can truly rely on!

- 1 High Precision 10,000rpm spindle with floating drawbar system
- 2 Entire support table 1,100x600 mm
- 3 Centralized lubrication system
- 4 Widest saddle support 900 mm
- 5 Golden Triangular design with rib-braced column construction
- 6 6-point contact between saddle and table
- 7 8-point contact between saddle and base
- 8 Widened 4-rail slide construction for rigid Y-axis motion
- 9 8-point contact leveling bolts and blocks



Reinforced Double-nutted Ballscrew

The double-anchored ballscrew and broadened bearing nut contact reduce the backlash and enhance the cutting rigidity.

CUTTING CAPABILITY



FACE MILLING
S45C Steel
Material Removal Rate
153 cc/min.

Tool	Ø80
Spindle Speed	1,200 rpm
Feedrate	850 mm/min.
Width of Cut	60 mm
Depth of Cut	3 mm



END MILLING
Aluminum
Material Removal Rate
120 cc/min.

Tool	Ø30
Spindle Speed	4,500 rpm
Feedrate	2,000 mm/min.
Width of Cut	2 mm
Depth of Cut	30 mm



TAPPING
S45C Steel
TAP
M20

Tool	M20
Spindle Speed	200 rpm
Feedrate	500 mm/min.



DRILLING
Aluminum
Cutting Diameter
40 mm

Tool	Ø40
Spindle Speed	1,200 rpm
Feedrate	180 mm/min.

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	ITEM	UNIT	PERFORMA VMC-1000	
TABLE	Table Size	mm inch	1,100x600	43.3x23.6
	T-slots (CDxWxNO)		100x18mmx5T	
	Table Load (Max.)	kg lbs	900	1,980
TRAVEL	X/Y/Z	mm inch	1,000/600/600	39.4/23.6/23.6
	Spindle Nose to Table Surface	mm inch	90~690	3.5~27.2
SPINDLE	Max. Speed	rpm	BT40, Belt 10,000	
	Motor	KW HP	7.5/11	10/15
FEEDRATE	Rapid Traverse X/Y/Z	m/min ipm	24/24/18	945/945/709
ATC	Tool Capacity	Tool	BT40, Carousel 16 or Arm 24	
	Max. Tool Dia. x Length	mm inch	ø75x250	ø3x9.8
	Max. Tool Weight	kg lbs	7	15.4
GENERAL	Dimension (LxWxH)	mm inch	3,000x2,615x2,535	118x103x100
	Weight	kg lbs	6,350	13,970

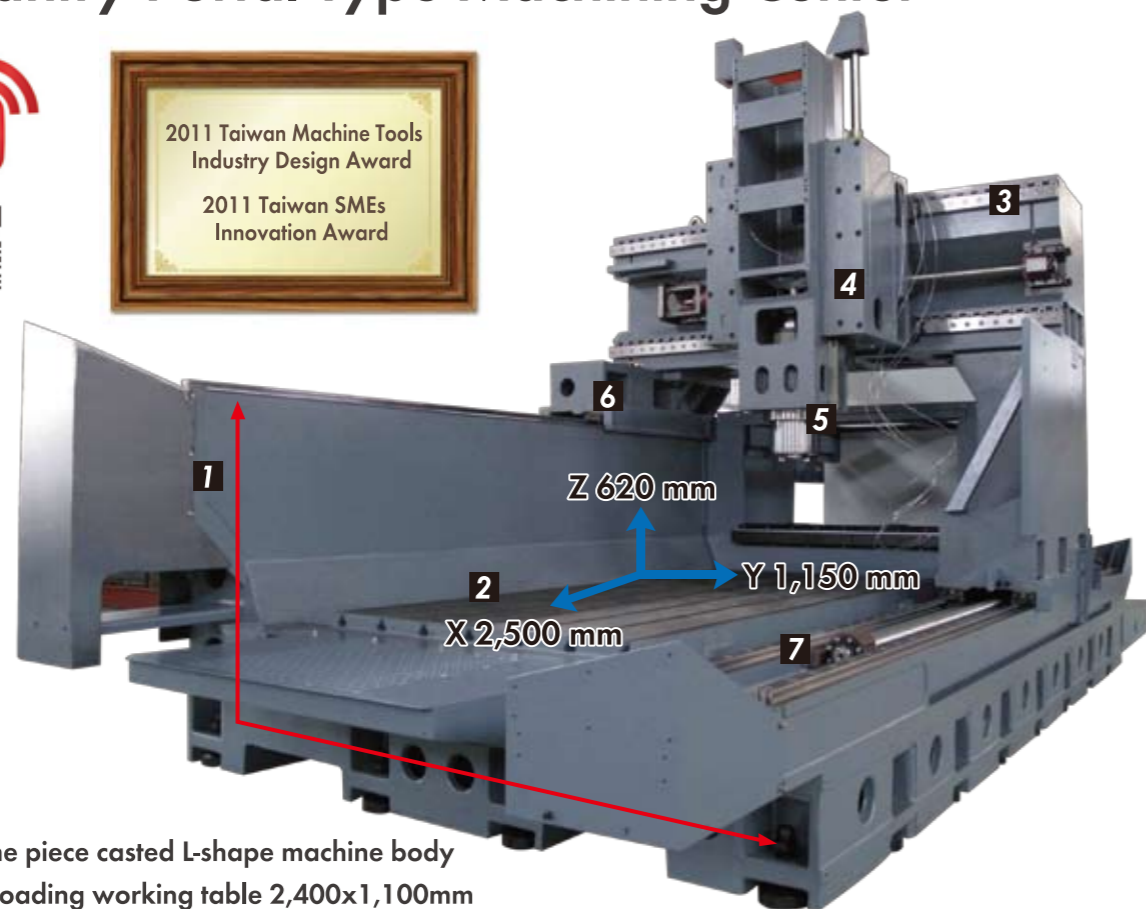
STANDARD EQUIPMENT

- Full Enclosure Splash Guard
- Cutting Coolant Unit
- Auto Lubrication System
- Air Blast Through Spindle Taper
- Spindle Oil Chiller
- Heat Exchanger in Electric Cabinet
- Disk Type Oil Skimmer
- Spiral Type Chip Conveyor & Bucket
- Mechanical Counterweight on Z-axis
- Coolant Gun
- LED Lamp & Alarm Indicator
- Service Tools & Leveling Bolts
- Manual Pulse Generator

LG-2500

Semi-Gantry Portal Type Machining Center

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- 1** Rock solid one piece casted L-shape machine body
- 2** Ultra heavy loading working table 2,400x1,100mm
- 3** Oversized linear guide ways on X, Y-axis
- 4** High rigidity 80mm box guide way on Z-axis
- 5** Powerful 8,000rpm BT50 direct drive spindle or compatible with ZF gear box
- 6** 1.5m span semi-gantry structure for various kinds of heavy duty machining challenges
- 7** Duo-driven servo motion on X-axis with HEIDENHAIN linear scale (option)

SEMI-GANTRY

Better Accessibility, Visibility and Rigidity

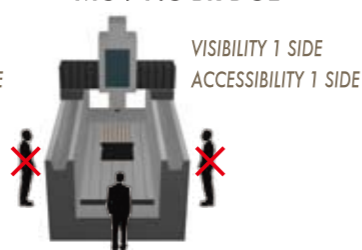
The semi-gantry structure allows the operator to control the machine ergonomically because it has an easy access for loading/unloading workpieces. The operator is always at the ideal position on both sides during the machining.



MOVING-COLUMN



MOVING-BRIDGE



MOVING-TABLE



CUTTING CAPABILITY

FACE MILLING S45C Steel Material Removal Rate	END MILLING S45C Steel Material Removal Rate	TAPPING S45C Steel TAP	DRILLING Aluminum Cutting Diameter
630 cc/min.	308 cc/min.	M24	40 mm
Tool: Ø80 Spindle Speed: 1,200 rpm Feedrate: 2,000 mm/min. Width of Cut: 70 mm Depth of Cut: 4.5 mm	Tool: Ø20 Spindle Speed: 4,500 rpm Feedrate: 2,200 mm/min. Width of Cut: 7 mm Depth of Cut: 20 mm	Tool: M24 Spindle Speed: 100 rpm Feedrate: 300 mm/min.	Tool: Ø40 Spindle Speed: 1,200 rpm Feedrate: 240 mm/min.

LG-2500 advantages:

- Less floor space occupation
- Stronger machine construction
- Faster machining performance



	ITEM	UNIT	SEMI-GANTRY LG-2500	
TABLE	Table Size	mm inch	2,400x1,100	94.5x43.3
	T-slots (CDxWxNO)		170x22mmx7T	
	Table Load (Max.)	kg lbs	9,000	19,800
TRAVEL	X/Y/Z	mm inch	2,500/1,150/620	98.4/45.3/24.4
	Spindle Nose to Table Surface	mm inch	150~770	6~30.3
	Spindle Center to Column Surface	mm inch	400	15.8
	Distance between Columns	mm inch	1,500	59
SPINDLE	Max. Speed	rpm	BT50, Direct 8,000	
	Motor	KW HP	22/30 SIEMENS	29/40 SIEMENS
FEEDRATE	Rapid Traverse X/Y/Z	m/min ipm	20/20/15	787/787/591
ATC	Tool Capacity	Tool	BT50, Umbrella 30	
	Max. Tool Dia. x Length	mm inch	ø110x300	ø4.3x11.8
	Max. Tool Weight	kg lbs	15	33
GENERAL	Dimension (LxWxH)	mm inch	7,000x4,150x3,200	276x163x126
	Weight	kg lbs	18,000	39,600

STANDARD EQUIPMENT

- Semi-Enclosed Splash Guard
- Cutting Coolant Unit
- Auto Lubrication System
- Air Blast Through Spindle Taper
- Spindle Oil Chiller
- Air Conditioner in Electric Cabinet
- Machining Monitoring System
- Hinge Type Chip Conveyor
- Hydraulic Counterweight on Z-axis
- LED Lamp & Alarm Indicator
- Service Tools & Leveling Bolts
- Manual Pulse Generator