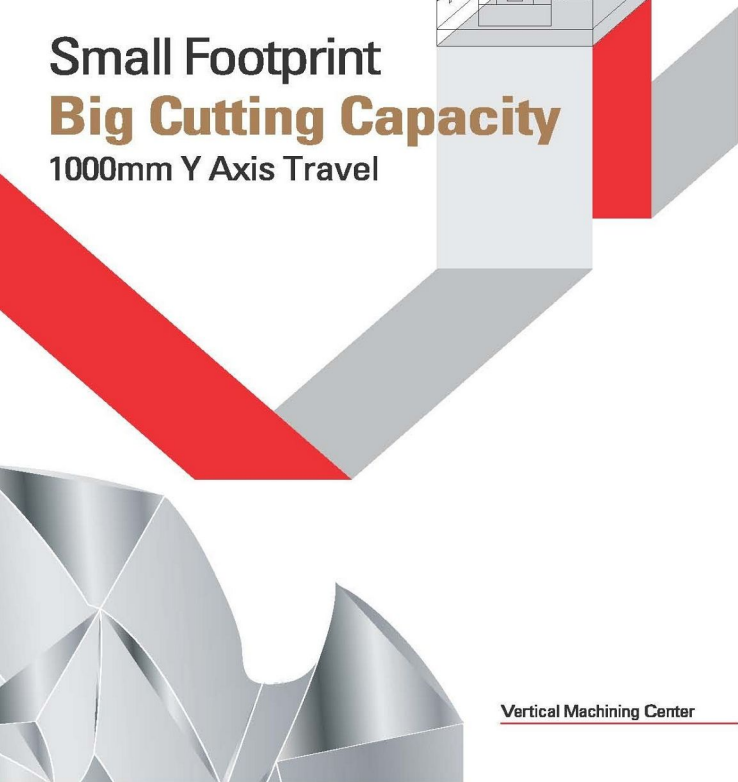


Small Footprint
Big Cutting Capacity
1000mm Y Axis Travel



Vertical Machining Center

FMV-860/1160

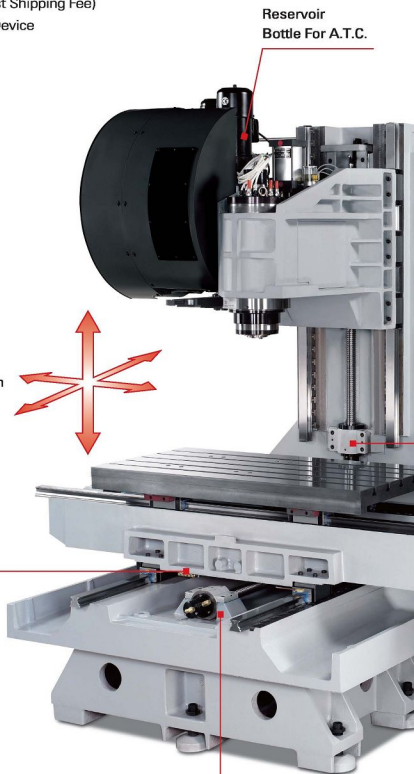
- X/Y/Z Rapid Traverse 30/30/24 m/min (Option 36/36/30 m/min)
- HQ-Container Ocean Packing (Lowest Shipping Fee)
- Direct Type Spindle Motor Cooling Device

Reservoir
Bottle For A.T.C.

3 Axis High Rigidity Design

Reservoir-Type
Lubricator Bronze
Tube Oil Circuit

3 Axis Design Roller Type
Linear Guideways



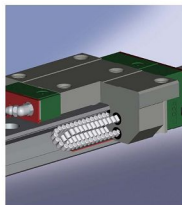


Heavier Loading & Higher Precision

Roller Type Linear Guideways on X/Y/Z Axis



X/Y/Z Axes Equipped
with 7 Angular Ball
Bearings to Reduce
Thermal Deformation
Impacts



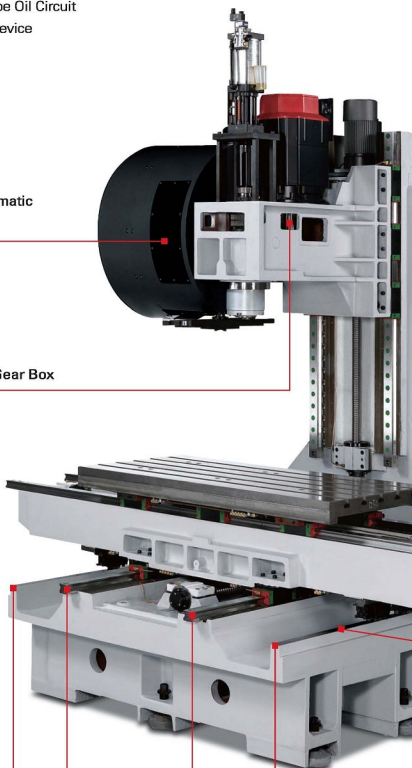
FMV-1100/1250(1350)/1400(1500)

- 3 Axis Rapid Traverse 24 m/min, Option 30/30/24 m/min
- HQ-Container Packing (Lower Shipping Cost)
- Reservoir-Type Lubricator Bronze Tube Oil Circuit
- Direct Type Spindle Motor Cooling Device

Independent Pneumatic
Reservoir For ATC

Option ISO-50, ZF Gear Box

Special Design For Y Axis
Four Tracks & Roller Type
Liner Guide





Increased Precision & Stability

4 Roller Linear Guideways on Y Axis

Y Axis Travel 700mm
For Large Workpiece
Machining Options



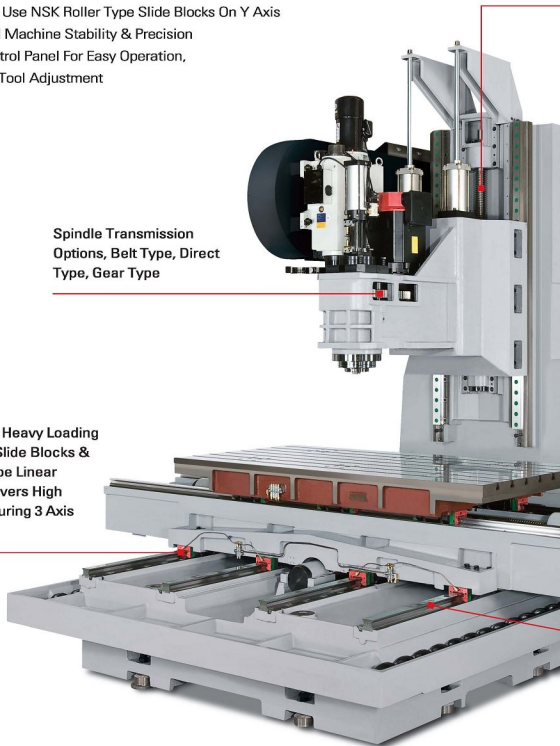
700mm

FMV-1600/1800/2000

- Low Speed High Torque Wide Range Spindle Motor
- Z Axis Used Servo Motor Brake System & Two Cylinders For Counter Balance For High Performance
- 2000 Models Use NSK Roller Type Slide Blocks On Y Axis For Increased Machine Stability & Precision
- Movable Control Panel For Easy Operation, Workpiece / Tool Adjustment

Spindle Transmission Options, Belt Type, Direct Type, Gear Type

X/Y/Z Axes Use Heavy Loading 55mm 6 x 8 x 6 Slide Blocks & Cross Roller Type Linear Guideways Delivers High Performance During 3 Axis Movement



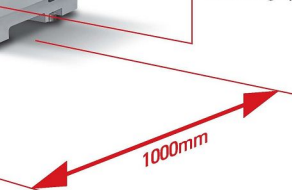
Large Diameter 63 mm C3
Ball Screw on X/Y/Z Axes



Faster Cycle Times

X/Y/Z Axes Rapid Traverse 24/24/20 m/min

Extra Y Axis Travel 1000 mm
For Large Workpiece
Machining Options



1000mm

FMV Series

Material: NAK 80

Machining Program: Fan Mold

Tool: $\phi 10R2$, $\phi 3R3$, $\phi 4R3$

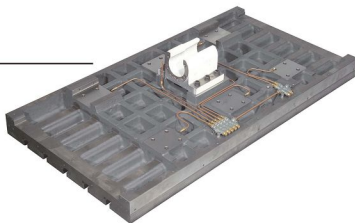
RPM: 4800, 9000, 15000

mm/min: F3000, F3000, F2500

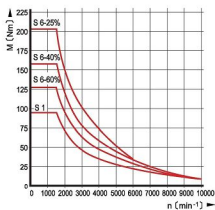
Machining Time: 32, 38, 70 min



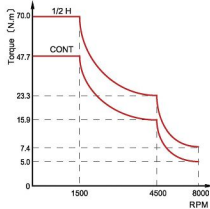
Reservoir Type Lubricator
Bronze Tube Oil Circuit



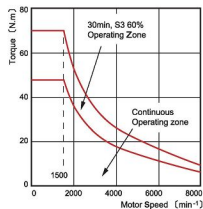
HEIDENHAIN QAN 260M Series
Torque Characteristic Curve



MISTUBISHI SJ-V11 Series



FANUC α Series

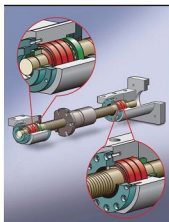




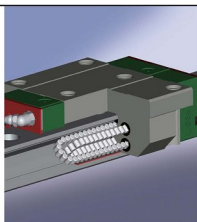
4 Way Swiveling Control Box



Spindle Motor Cooling Device



Enhanced Screw
Pretension Design

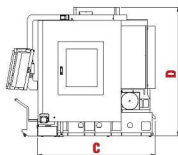
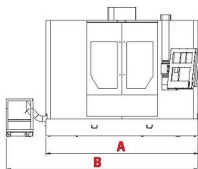
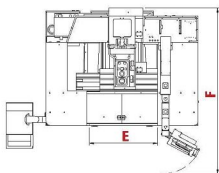


High Rigidity Roller Type Liner Guide



- Ball Bar Testing Laser
- Spindle Laser Calibrating
- Dynamic Balancing

FMV Series Specifications



Dimensional Drawing

	A	B	C	D	E	F
850	2200	2960	2650	Min 2250 Max 2850	900	3570
1100	2900	3660	2240	Min 2250 Max 2850	1100	3160
1160	2900	3660	2240	Min 2340 Max 2980	1100	3160
1250	3200	3960	2260	Min 2340 Max 2980	1300	3160
1400	3600	4360	2260	Min 2340 Max 2980	1500	3160
1600	3900	4600	3500	Min 2500 Max 3500	1700	4500
1800	4200	4900	3500	Min 2500 Max 3500	1900	4500
2000	4700	5400	3500	Min 2500 Max 3500	2100	4500

Standard Accessories:

- Arm Type Automatic Tool Changer (24 Tools)
- Fully Enclosed Guard
- Swiveling Control Box
- Work Light & Alarm Light
- Volumetric Type Automatic Lubricator
- Coolant & Chip Flushing System
- Auto Power Off
- Rigid Tapping
- Tool Box
- Leveling Screws & Blocks
- Operation Manual
- Mechanical Oil Coolant Separator

Optional Accessories:

- Air Gun
- Water Gun
- Coolant Through Tool Holder
- Coolant Through Spindle (CTS)
- Transformer
- Chip Conveyor
- Linear Scale

Table

Table Size

Working Area

T-Slot

Max Table Loading Capacity

Travel

X/Y/Z Axis Travel

Spindle Nose To Table Surface

Spindle

Spindle Taper

Spindle Speeds

Transmission Method

Spindle Motor

ATC

Magazine Capacity

Tool Selection Method

Max Tool Diameter/Length

Max Tool Weight

Tool Shank Specification

Tool Change Time

3 Axis Traverse

3 Axis Cutting Feedrate

3 Axis Rapid Traverse

Drive Motors

Chip Auger Motor

Chip Conveyor Motor

Coolant Pump Motor

Chip Flushing Pump Motor

Coolant Tank

Coolant Tank Capacity

Coolant Flow

Others

Machine Dimensions (L x W x H)

Net Weight / Gross Weight

■ Description in () are optional accessories

	860	1100	1160	1250 (1350)	1400 (1500)	1600	1800	2000
mm	910 x 560	1100 x 560	1160 x 600	1350 x 600	1500 x 600	1700 x 1000	1900 x 1000	2100 x 1000
mm	860 x 600	1100 x 600	1100 x 600	1250 x 700	1400 x 700	1600 x 1000	1800 x 1000	2000 x 1000
mm	18 x 5 x 100	18 x 5 x 100	18 x 5 x 100	18 x 5 x 100	18 x 5 x 100	18 x 7 x 125	18 x 7 x 125	18 x 7 x 125
kgs	800	900	1000	1200	1500	2200	2500	3000
mm	860/600/600	1100/600/600	1100/600/600	1250 (1350)/700/600	1400 (1500)/700/600	1600/1000/800	1800/1000/800	2000/1000/800
mm	120-720	120-720	120-720	120-720 (760)	120-720 (760)	200-1000	200-1000	200-1000
rpm	ISO-40 / ISO-50 8000 (10000, 12000, 15000) / 6000 (8000, 10000) Belt (Direct, ZF Gearbox)					ISO-50 (ISO-40) 6000 (8000, 10000) / 8000 (10000, 12000, 15000) Belt (Gear, Direct, ZF Gearbox)		
kw	7.5/11 (11/15, 15/18.5)					15/18.5 (18.5/22)		
tools	24 (30, 40) / 20 (24) Random					24 (30, 40) Random		
mm	Ø80, 300 / Ø110, 350					Ø110 / 350		
kgs	7 / 15 ISO-40 (ISO-50)					15 ISO-50 (ISO-40)		
sec	T-T 2.3; C-C 4.5 (T-T 1.8; C-C 3.8)					T-T 3.5; C-C 7		
mm/min	12000					10000		
m/min	30/30/24 (36/36/30, 48/48/36)		24 (30/30/24)			20/20/15 (24/24/20)		
hp	1/2					1/2		
hp	1/4					1/4		
hp	3/4					3/4		
hp	1/2 (3/4)					1/2 (3/4)		
ℓ	350	400	400	400	400	600	700	750
ℓ/min	200	200	200	200	200	200	200	200
mm	2960 x 3570 x 2980	3660 x 3160 x 2850	3660 x 3160 x 2980	3960 x 3160 x 2980	4360 x 3160 x 2980	4600 x 4500 x 3500	4900 x 4500 x 3500	5400 x 4500 x 3500
kgs	6000/6600	6700/7300	7300/7800	8000/8500	10000/10600	17000/20000	18000/21000	20000/23000

■ We reserve the right to modify the design and specification without notice in advance.
Above specifications are for reference only. Correct specifications are based on actual machine.



Just what you need!



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