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SBM *SERIES*

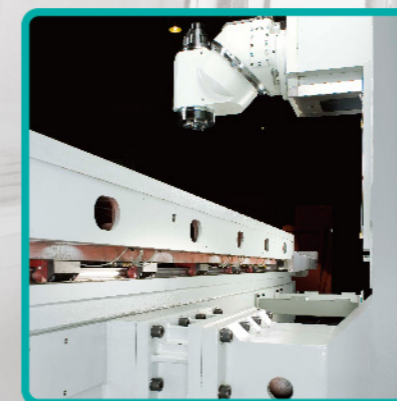
CNC Bed Type Universal
 Milling Machine

SBM

CNC Universal Milling Machine Your best choice for mold and mold basemachining

European designs within SBM series, which offers various spindle models and milling heads to meet the requirement. You could choose the machine model by actual machining condition. H-series is standard horizontal milling head or equips with manual universal milling head. Furthermore, V-series equips with automatic A/C milling Head(5° or 2.5° indexing) or Automatic horizontal and vertical milling head. Automatic multi-angle machining brings the most efficiency to you.

With the excellent heavy cutting performance and and versatility. FEELER CNC Universal Milling Machine Series is widely recognized by worldwide customers who are pursuing high working efficiency.



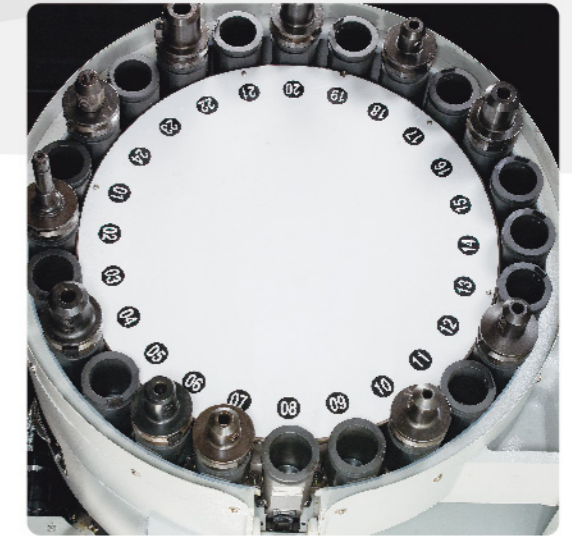
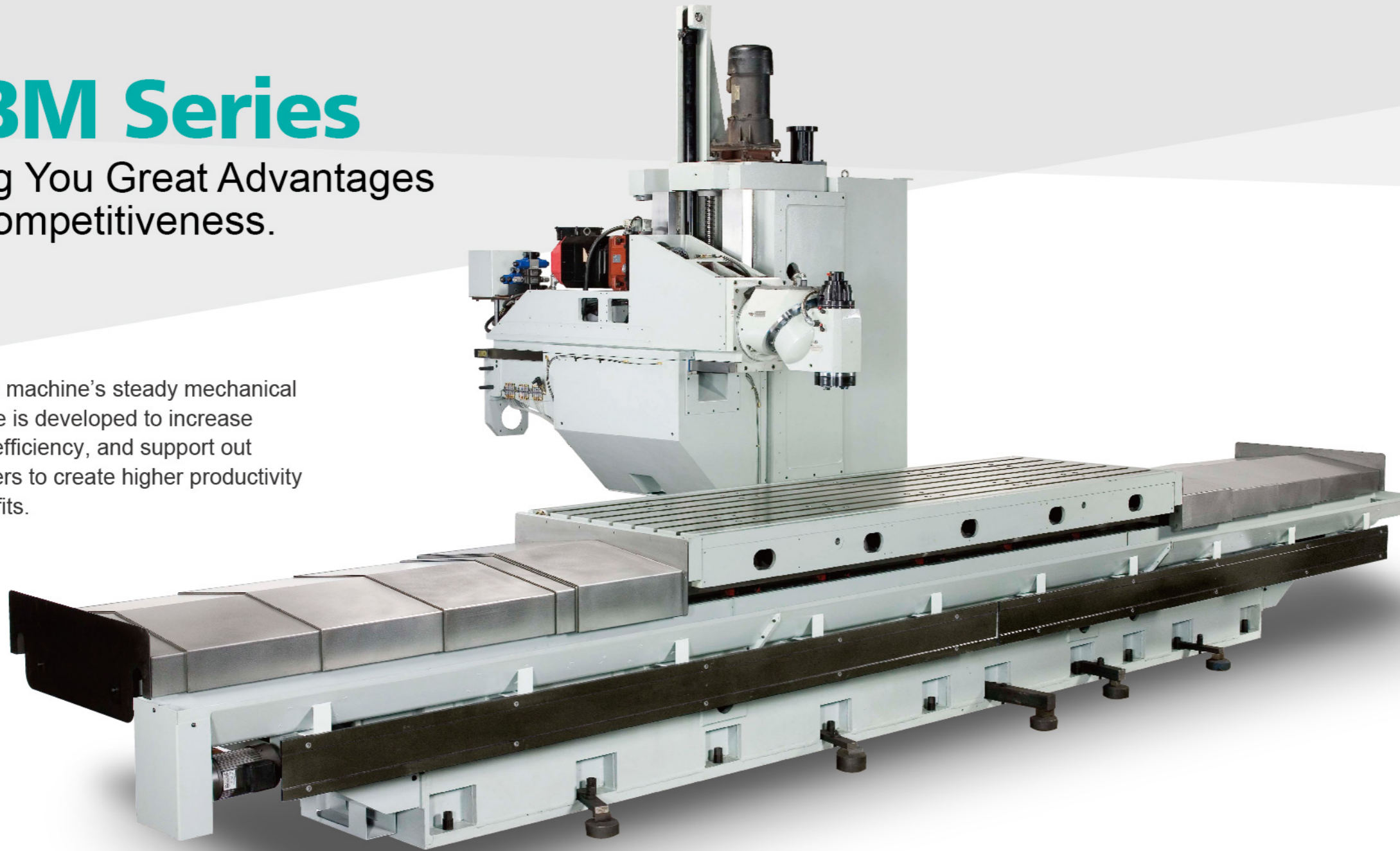
Outstanding Design Reflecting Extraordinary Cutting Capabilities

- Vertical axis is counter-balanced by hydraulic cylinder, Preventing the milling head and the ram assembly from slipping.
- Modulization design featuring cost effectiveness, and Easy to satisfy customized orders.
- Machine structure is designed and analyzed by Finite Element Method (FEM).
- Z axis motor is fitted with brake to prevent Ram falling Down in case of power failure.

SBM Series

Bring You Great Advantages in Competitiveness.

FEELER machine's steady mechanical structure is developed to increase cutting efficiency, and support out customers to create higher productivity and profits.



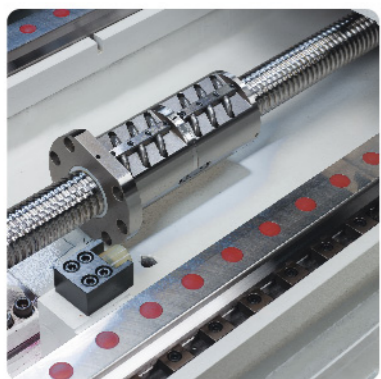
Vertical arm type ATC magazine



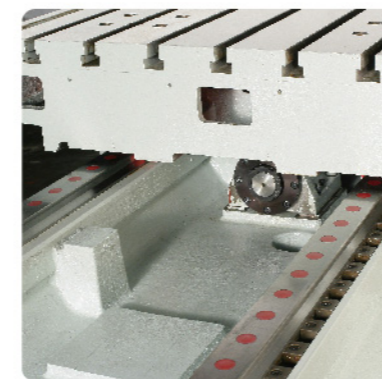
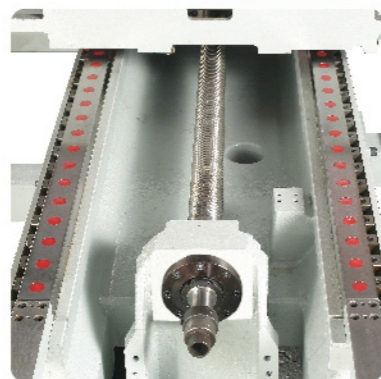
Hing Rigidity Machine, Suitable for Heavy Duty Cutting

Stable mechanical structure featuring high rigidity and steadiness in heavy cutting.

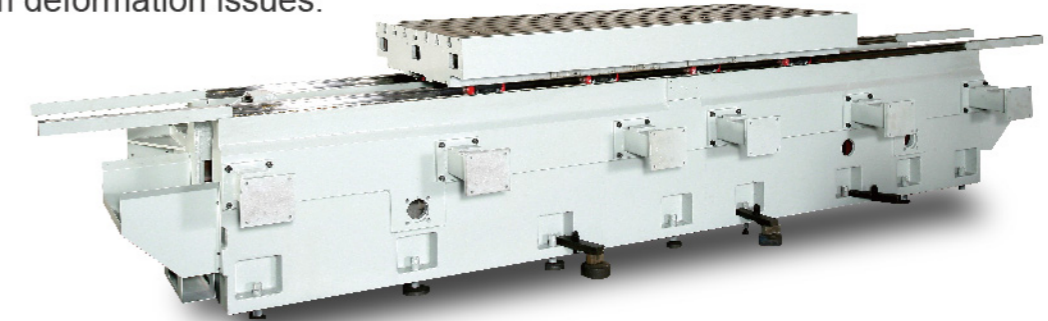
The main machine structures are designed and analyzed via Finite Element Method, with heat treatment process procedures to ensure dynamic as well as static accuracy of the machine, free from deformation issues.



High precision and pre-tensioned ball screws are employed on the machine to ensure maximum axial rigidity.



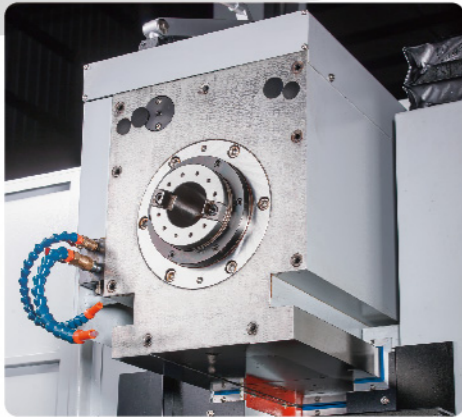
X-axis equipped with roller type linear way for excellent table loading capacity.



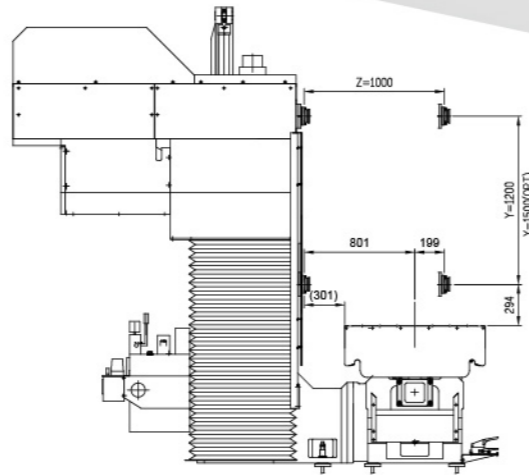
H series

Horizontal spindle speed is 4000rpm (option 6000rpm), which transmitted by 2-step gear box and provided high torque to meet the requirement of heavy cutting.

Standard Horizontal Milling Head [w/o Milling Head]



· Spindle Speed 4,000rpm

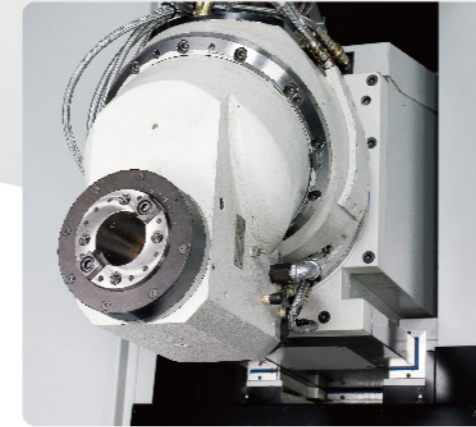


V series

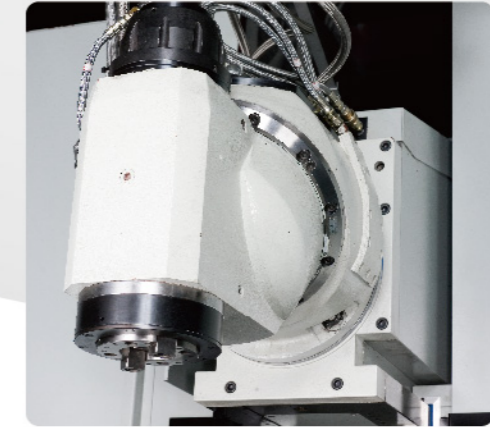
Provide multi-angle to satisfy the machining condition.

- Automatic V&H milling head-3500rpm(Taiwan) as Standard.
- Automatic 2.5° indexing A/C milling head-4500rpm(Spain) as opt.

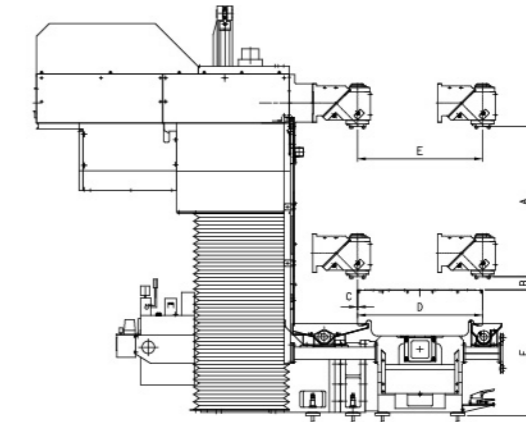
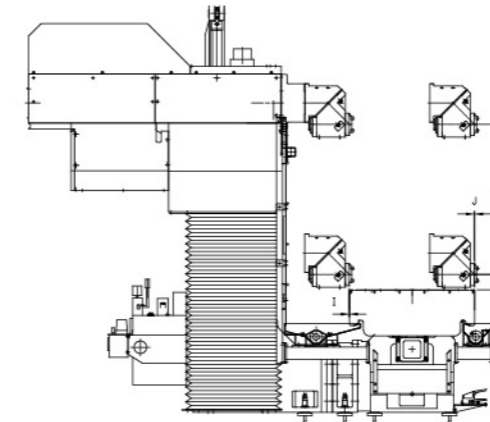
Automatic Vertical / Horizontal Milling Head (Optional)



Horizontal machining
· Spindle Speed 3,500rpm

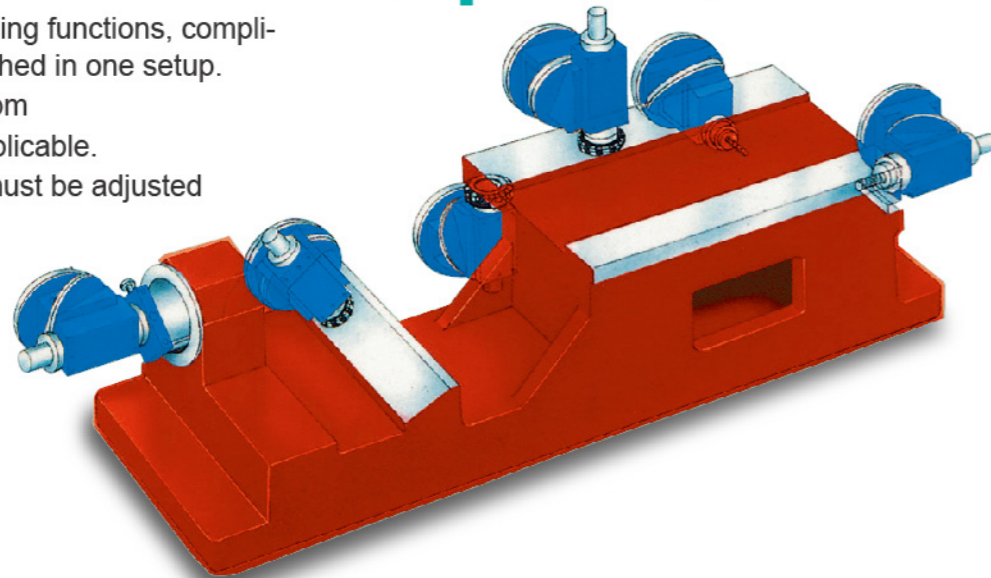


Vertical machining
· Spindle Speed 3,500rpm



Manual Universal Milling Attachment (Optional)

- Multi-face and side milling functions, complicated jobs may be finished in one setup.
- Spindle speed : 3500rpm
- ATC function is not applicable.
- All machining angles must be adjusted manually.



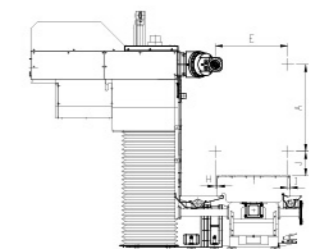
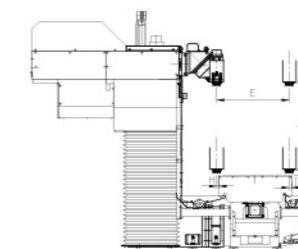
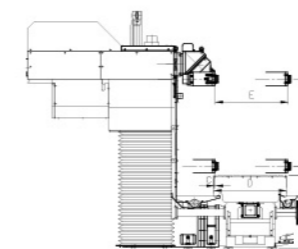
Unit : mm

MODEL		A	B	C	D	E	F	G	H	I	J
H series	Manual Universal Milling Head	1200	105.1	0				1200	121.9	2.6	2.6
V series	Automatic Vertical / Horizontal Milling Head	(1500)	44	31	1000	1000	1005	(1500)	94	-19	-19
	Automatic A/C milling head		134	21				84	29	29	334

Automatic A/C milling head



· Speed 3,500rpm



Precision Spindle

High output torque

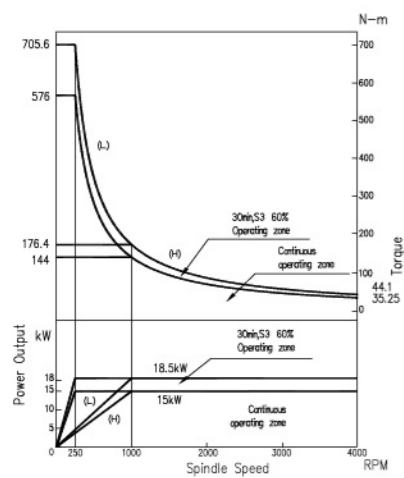
Excellent heavy duty cutting performance

- BT50
- 4000 rpm spindle as standard (6000 rpm as optional).
- Standard feature is horizontal spindle.
- Spindle is driven by AC serve motor via 2-step transmission gearbox to supply high torque for heavy duty cutting.
- Spindle speed and rotating direction can be controlled by CNC.

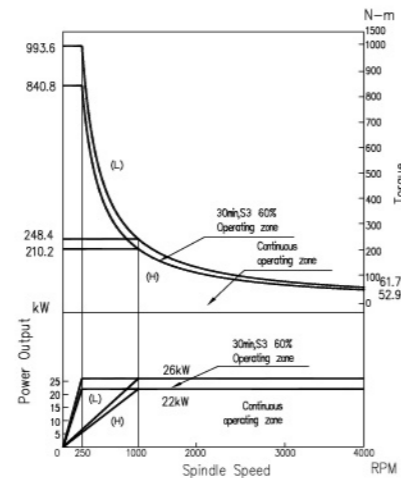
Spindle Output Chart

SBM-H Series

Spindle speed / 4000RPM



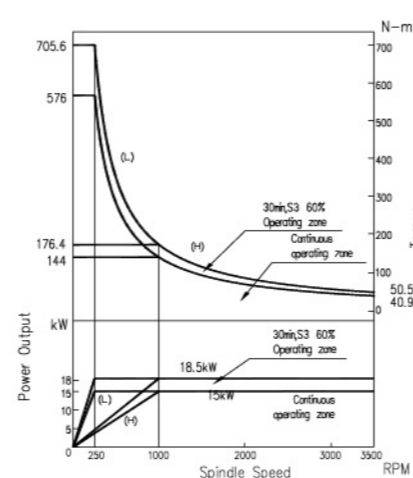
Spindle motor 15/18.5kW with Gearbox



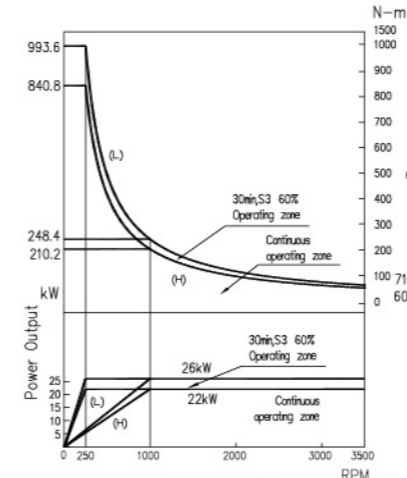
Spindle motor 22/26kW with Gearbox

SBM-V Series

Milling head speed 3500RPM

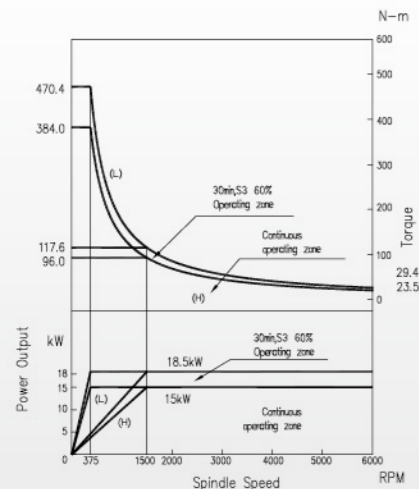


Spindle motor 15/18.5kW with Gearbox

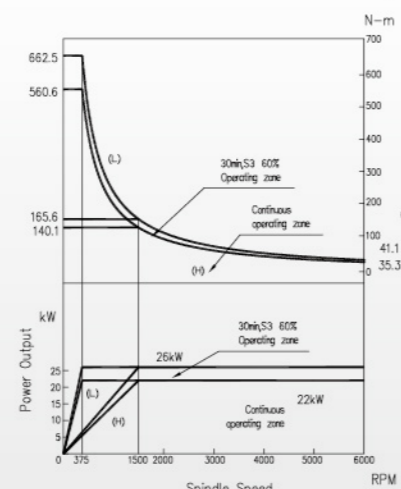


Spindle motor 22/26kW with Gearbox

Spindle speed / 6000RPM

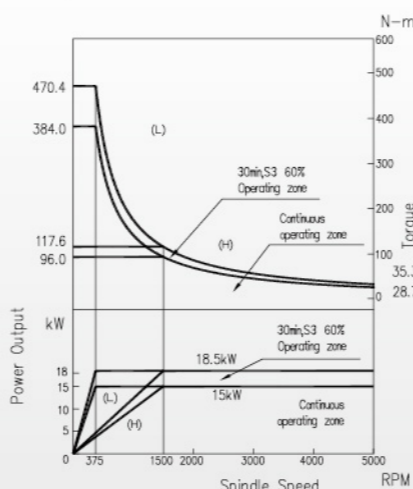


Spindle motor 15/18.5kW with Gearbox

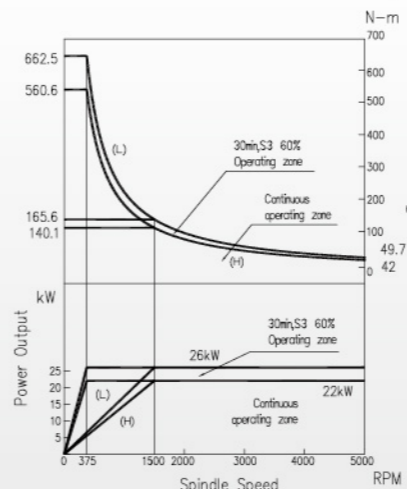


Spindle motor 22/26kW with Gearbox

Milling head speed / 5000RPM

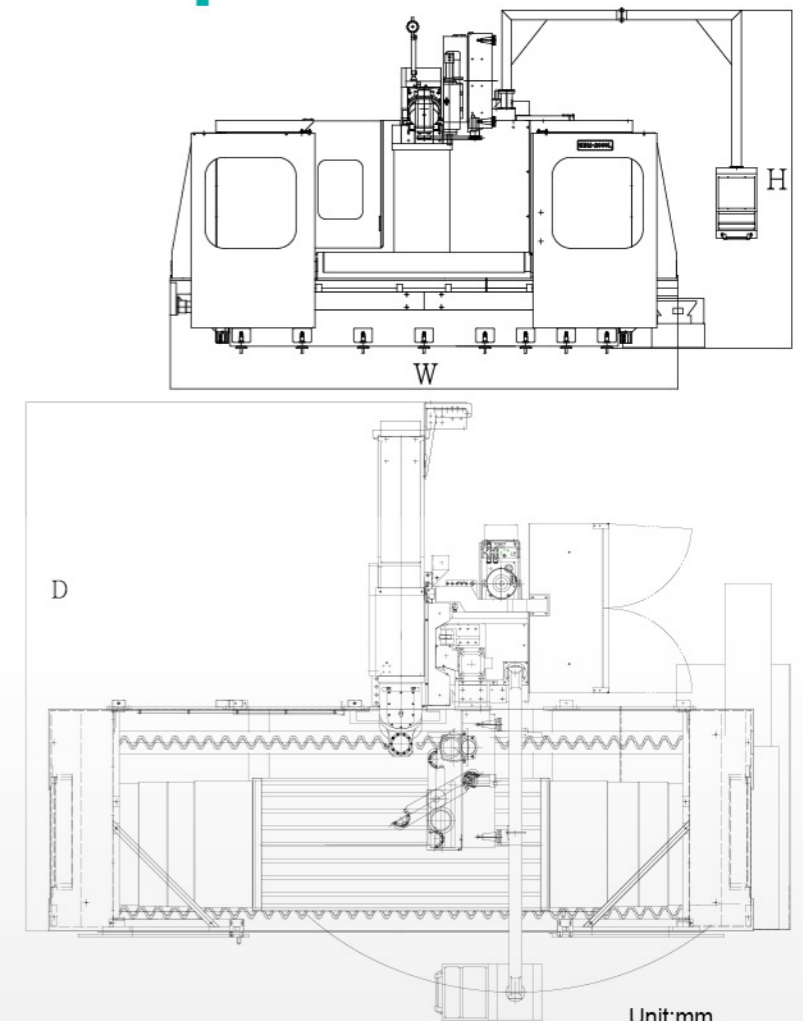


Spindle motor 15/18.5kW with Gearbox



Spindle motor 22/26kW with Gearbox

Floor Space



MODEL	WIDTH	DEPTH	HEIGHT
SBM-2000	5560	4800	3530(Y-axis1200)
SBM-2500	6560		3830(Y-axis1500)
SBM-3000	7560		
SBM-3500	8560		

Unit:mm

Machine Specifications- w/o optional milling head

MODEL	UNIT	SBM-2000H	SBM-2500H	SBM-3000H	SBM-3500H
TRAVEL					
X-axis travel	mm	2,000	2,500	3,000	3,500
Y-axis travel(Up and Down)	mm	1,200 (1,500)			
Z-axis travel(Forward and Backward)	mm	1,000			
Distance from table top to spindle center	mm	295~1,495 (295~1,795)			
Distance from table center to spindle nose	mm	-801~199			
TABLE					
Table size(L x W)	mm	2,100×1,000	2,700×1,000	3,100×1,000	3,600×1,000
Max. table load weight	kg	5,000	6,000	7,000	8,000
Table working surface configuration	mm	22T×7×125			
Height from floor to table top	mm	1,005			
SPINDLE					
Taper	-	BT-50			
Speed	rpm	4,000 (6,000)			
Max. Power Output(cont /30min)	kW(HP)	15/18.5 (22/26)			
FEED RATE X/Y/Z					
Rapid traverse X/Y/Z	m/min	10,000			
Cutting feedrate	mm/min	1~5,000			
Minimum setting	mm	0.001			
COOLANT & LUBRICATION					
Hydraulic oil tank volume	L	80			
Lubricant tank volume	L	8			
Coolant tank volume	L	360			
MISCELLANEOUS					
Electrical power supply	kVA	50			
Compressed air pressure	kg/cm ² (psi)	6 (85)			
Compressed oil pressure	kg/cm ² (psi)	107 (1,523)			
Compressed air flow rate	L/min	30			
Controller	-	FANUC 32i-M (31i) (MITSUBISHI / SIEMENS/ HEIDENHAIN)			
MACHINE SIZE					
Height of machine	mm	3,530			
Floor space	mm	4,800x5,560	4,800x6,560	4,800x7,560	4,800x8,560
Machine weight	kg	15,000	16,000	18,800	20,000

©Specifications are subject to change without prior notice.

Standard Accessories

- 4000 rpm spindle
- X/Y/Z axis linear scales
- Heat Exchanger in cabinet
- MPG
- Spindle Oil Cooler
- Spindle air blast system
- Cutting Fluid Tank
- Auto Lubrication System
- Pneumatic Unit
- Hydraulic Unit
- Chip auger & chain type chip conveyor
- Splash guard
- Automatic power off
- Work light \ Alarm lamp
- Leveling screws and pads
- Operational & maintenance manual
- Tools box for machine adjustment

Optional Accessories

- 6000 rpm spindle
- Horizontal with ATC 24/40/60 tools
- 3500 rpm manual universal milling head
- Spindle motor 22/26kW
- Coolant through spindle (CTS 20 BAR)
- The 4th rotary table
- Auxiliary work table
- Air conditioner at cabinet
- Tool length & Diameter Measurement (TS-27)
- Workpiece coordinate measuring (OMP60)
- CE accessory
- Transformer

Machine Specifications- with milling head (can't remove)

MODEL	UNIT	SBM-2000V	SBM-2500V	SBM-3000V	SBM-3500V
TRAVEL					
X-axis travel	mm	2,000	2,500	3,000	3,500
Y-axis travel(Forward and Backward)	mm	1,000			
Z-axis travel(Up and Down)	mm	1,200 (1,500)			
Distance from table top to spindle center	mm	Horizontal 94~1,294(94~1,594) / Vertical 44~1,244(44~1,544)			
Distance from table center to spindle nose	mm	Horizontal -481~519 / Vertical -531~469			
TABLE					
Table size(L x W)	mm	2,100×1,000	2,700×1,000	3,100×1,000	3,600×1,000
Max. table load weight	kg	5,000	6,000	7,000	8,000
Table working surface configuration	mm	22T×7×125			
Height from floor to table top	mm	1,005			
SPINDLE					
Taper	-	BT-50			
Speed	rpm	3,500 (4,500)			
Max. Power Output(cont /30min)	kW(HP)	15/18.5 (22/26)			
FEED RATE X/Y/Z					
Rapid traverse X/Y/Z	m/min	10,000			
Cutting feedrate	mm/min	1~5,000			
Minimum setting	mm	0.001			
COOLANT & LUBRICATION					
Hydraulic oil tank volume	L	80			
Lubricant tank volume	L	8			
Coolant tank volume	L	360			
MISCELLANEOUS					
Electrical power supply	kVA	50			
Compressed air pressure	kg/cm ² (psi)	6 (85)			
Compressed oil pressure	kg/cm ² (psi)	96(1,392)			
Compressed air flow rate	L/min	30			
Controller	-	FANUC 32i-M (31i) (MITSUBISHI / SIEMENS/ HEIDENHAIN)			
MACHINE SIZE					
Height of machine	mm	3,530			
Floor space	mm	4,800x5,560	4,800x6,560	4,800x7,560	4,800x8,560
Machine weight	kg	15,000	16,000	18,800	20,000

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Standard Accessories

- Automatic V&H milling head-3500rpm (Taiwan)
- X/Y/Z axis linear scales
- Heat Exchanger in cabinet
- MPG
- Spindle Oil Cooler
- Cutting Fluid Tank
- Auto Lubrication System
- Pneumatic Unit
- Hydraulic Unit
- Chip auger & chain type chip conveyor
- Splash guard
- Automatic power off
- Work light \ Alarm lamp
- Leveling screws and pads
- Operational & maintenance manual
- Tools box for machine adjustment

Optional Accessories

- Automatic 5° indexing A/C milling head-3500rpm (Taiwan)
- Automatic 2.5° indexing A/C milling head 4500rpm (Spain)
- Horizontal with ATC 24/40/60 tools
- Vertical with ATC 24 tools
- Spindle motor 22/26kW
- Coolant through spindle (CTS 20 BAR)
- The 4th rotary table
- Auxiliary work table
- Air conditioner at cabinet
- Tool length & Diameter Measurement (TS-27)
- Workpiece coordinate measuring (OMP60)
- CE accessory
- Transformer