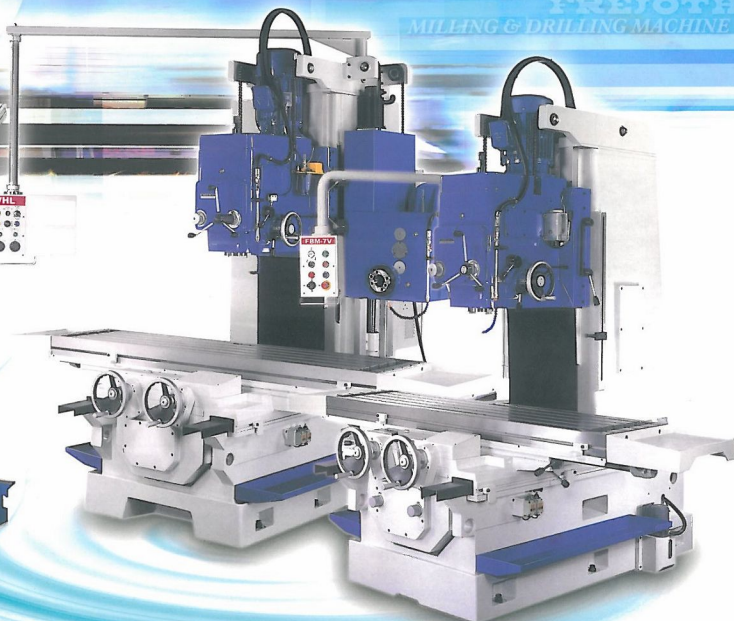


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FREJOTH

*Bed Type Vertical With Horizontal
Boring & Milling Machine*



Bed Type Vertical With Horizontal Boring & Milling Machine

FBM-5V



FBM-7V



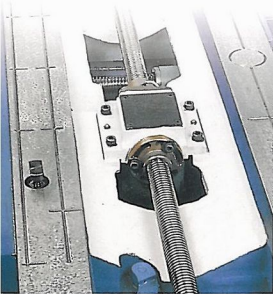
TABLE AND SADDLE

- The table and saddle are made of high-quality cast iron which has been carefully stress relieved.
- Way surfaces are hand scraped and finished.



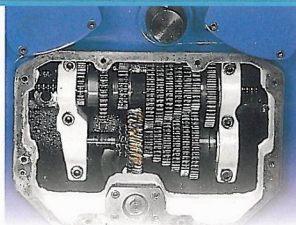
OPERATION
• All c

FEATURES:



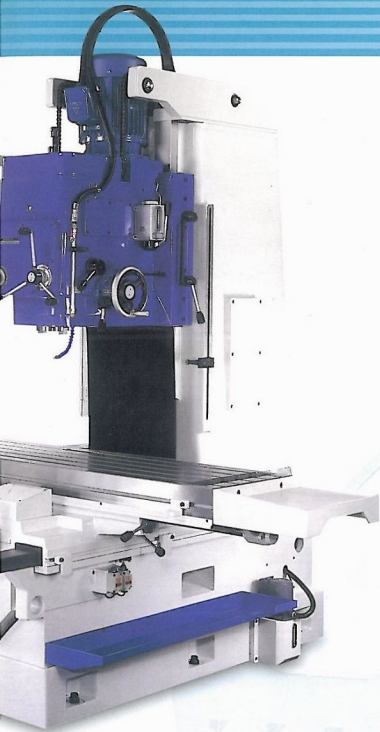
BACKLASH ELIMINATOR

- Table feed system is equipped with easy adjustable backlash eliminator to increase operating stability and cutting efficiency.
- Large supporting surface and narrow square guide ways provide stable and smooth sliding.



FEED BOX

- Table and saddle feed can be driven by power or manual operation, easy to change speeds and to operate.
- Because large range of speeds, it fits to do low speed heavy cutting to high speed, finishing cutting.



OPERATOR CONTROLS

Controls are centralized for operator's convenience.

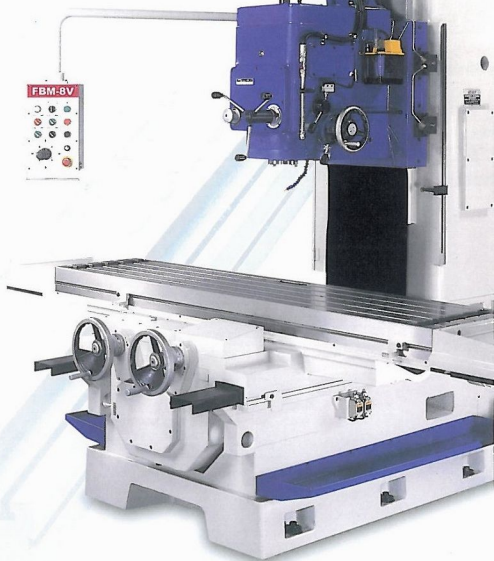


ACCURACY OF TABLE & SADDLE

- Table and saddle are made of high quality cast iron, treated through stress relieving.
- The sliding surfaces are right scrapped and finished.
- The upper, rear and front reference surfaces are ground, T-slots are correctly machined.
- So that the flatness, parallelism and squareness all meet the requirements of operation and are convenient in setup the work pieces.

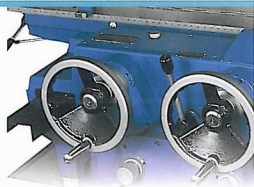


FBM-8V



ELECTRICAL CONTROL SYSTEM

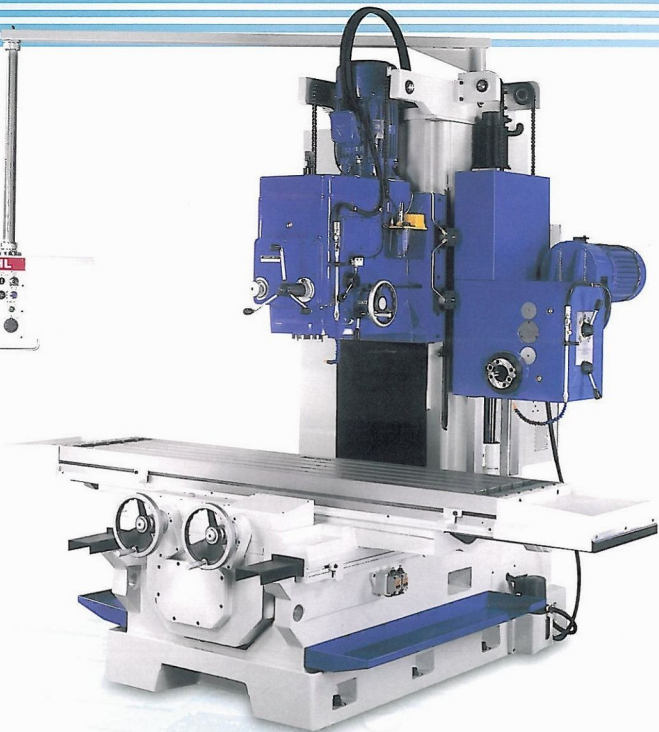
- Inverter is used in the FBM-8V to make the transmission control for the table motor.
- Its main features are as following:
 - Frequency display.
 - Current preset value.
 - Operation and alarm display.
- Multi-protective devices: Short circuit protection, low-voltage protection, over-voltage protection,...etc.



RIGID STRUCTURE

- Box shaped and reinforced by ribs construct a strong and rigid structure, which fits to do heavy duty cutting for large work pieces.
- Disposal of cutting fluid and chips is convenient, and easy to clean.

FBM-8VHL



- The X, Y and W axes of FBM-8VHL are equipped with ball screw and AC servo motor.
- There are three functions: Rapid & Jog & Manual feed.
- The vertical spindle head, saddle and table are equipped with pneumatic hydraulic clamp device.
- The horizontal spindle speed is 40-1450 RPM and with 12 steps speed changes.
- A counter weight balance permits the head to travel smoothly and to retain its accuracy stability.
- The X-axis travel up to 2000 mm is available on your request.

OPERATION DEVICE

- Whole structure of the machine is quite simple.
- The operation device, such as switch, handle, is erected in the front of the machine.
- So that all functional operations are at the operator's fingertips.
- A counter balancing weight is housed in the column to guarantee the smooth travel of the spindle head.



ANTI-WEARING WAYS

- Casting by high quality case iron.
- Processed through complete annealing to release residual stress, all sliding ways hardened and ground to reserve high accuracy and wear resistance, guide the travel of spindle head and saddle accurate and enduring.

Bed Type Vertical With Horizontal Boring & Milling Machine

SPECIFICATIONS

ITEM	UNIT	FBM-5V	FBM-7V	FBM-8V / FBM-8VHL
CAPACITY				
Table Travel (Longitudinal)	mm (in.)	1000 (39-3/8)	1200 (47-1/4)	1500 (59)
Table Travel (Cross)	mm (in.)	380 (14-15/16)	450 (17-11/16)	600 (23-5/8)
Vertical Spindle Head Travel (Vertical)	mm (in.)	500 (19-11/16)	550 (21-5/8)	700 (27-9/16)
Horizontal Spindle Head Travel (Vertical)	mm (in.)	—	—	— / 650
Vertical Spindle Nose To Table Top	mm (in.)	100—600 (3-15/16—23-5/8)	100—650 (3-15/16—25-5/8)	100—800 (3-15/16—31-1/2)
Vertical Spindle Center To Column Front	mm (in.)	380 (14-15/16)	450 (17-11/16)	550 (21-5/8)
Horizontal Spindle Center To Vertical Spindle Center Distance	—	—	—	— / 550 (21-5/8)
TABLE				
Table Working Area	mm (in.)	1700 x 380 (67 x 14-15/16)	1900 x 450 (74-13/16 x 17-11/16)	2200 x 500 (86-5/8 x 19-11/16)
T-slot (Wide x No. x Pitch)	mm (in.)	18 x 5 x 70 (0.709 x 5 x 2-3/4)	18 x 5 x 80 (0.709 x 5 x 3-1/8)	18 x 5 x 90 (0.709 x 5 x 3-9/16)
Table Top To Floor	mm (in.)	800 (31-1/2)	850 (33-1/2)	860 (33-7/8)
SPINDLE HEAD				
Spindle Nose	—	ISO R297 No. 50	ISO R297 No. 50	ISO R297 No. 50
Vertical Spindle Speeds	rpm	45—1500 (60 Hz)	45—1500 (60 Hz)	45—1500 (60 Hz)
Horizontal Spindle Speed	rpm	—	—	— / 45—1450 (60 Hz)
No. Of Vertical Spindle Speed	steps	12	12	12
No. Of Horizontal Spindle Speed	steps	—	—	— / 12
Feeds (Vertical Spindle)	mm/rev. (ipr)	0.05—0.2 (0.002—0.008)	0.05—0.2 (0.002—0.008)	0.05—0.2 (0.002—0.008)
FEED RAPID				
Rapid Traverse (Longitudinal & Cross)	mm/min (ipm)	2880 (113-3/8) (60Hz)	2880 (113-3/8) (60Hz)	3300 (129-7/8) (60 Hz)
Horizontal Rapid Traverse (Vertical)	mm/min (ipm)	—	—	— / 3800 (150) (60 Hz)
Feed Rates (Longitudinal & Cross)	mm/min (ipm)	28—875 (1-1/8—34-7/16) (60Hz)	28—875 (1-1/8—34-7/16) (60Hz)	0—1000 (0—39-3/8) (60 Hz)
Horizontal Feed Rates (Vertical)	mm/min (ipm)	—	—	— / 0—1000 (0—39-3/8) (60 Hz)
Change Of Feed	steps	12	12	Infinitely Variable
MOTORS				
Vertical Spindle	kw (HP)	AC 5.5 (7.5)-4P	AC 7.5 (10)-4P	AC 11 (15)-4P
Horizontal Spindle	kw (HP)	—	—	— / AC 5.5 (7.5)-6P
Feed	kw (HP)	AC 0.75 (1)-4P	AC 1.5 (2)-4P	SERVO MOTOR AC 1.5 (2)-6P / X & Y Axis: 3.5 (4.7) W axis: 0.85 (1.14)
Lubrication	kw (HP)	AC 3W-4P	AC 3W-4P	AC 3W-4P
Cutting Fluid	kw (HP)	AC 0.15 (1/6)-2P	AC 0.15 (1/6)-2P	AC 0.15 (1/6)-2P
MACHINE SIZE				
Machine Height	mm (in.)	2410 (94-7/8)	2600 (102-3/8)	2870 (113)
Floor Space (Longitudinal x Cross)	mm (in.)	3200 x 2000 (126 x 78-3/4)	3800 x 2210 (149-5/8 x 87)	4440 x 2550 (174-7/8 x 100-3/8)
Net Weight (Approx)	kgs (lbs)	4000 (8800)	5200 (11440)	7000 (15400) / 8700 (19140)
Standard Color	—	Blue & Whiel	Blue & Whiel	Blue & Whiel

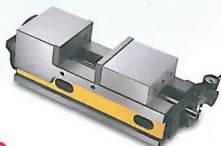
* The Design And Specifications Of The Machine Are Subject To Changes Without Further Notice

OPTIONAL ACCESSORIES

- 1. Narex-czech. Made Universal Boring And Facing Head Set.
- 2. Hydraulic Vise.
- 3. Air Operated Vise 8" / 10" / 12".
- 4. Hydraulic + Mechanical Compact Vise.
- 5. Delux Super Spacer.
- 6. Hori / Vert. Rotary.
- 7. Universal Dividing Head.
- 8. Universal Tilting Rotary.
- 9. ER Collet Milling Chuck Set With Specialized Sizes.
- 10. OZ Collet Milling Chuck.
- 11. Halogen Working Lamp.
- 12. Digital Read Out.
- 13. Boring Bar.
- 14. Power Draw Bar.
- 15. Spindle Speed. (60~1980 RPM) (For FBM~8V)
- 16. Below.



2 Hydraulic Vise.



3 Air Operated Vise 8" / 10" / 12".



4 Hydraulic + Mechanical Compact Vise.



5 Delux Super Spacer.



6 Hori / Vert. Rotary.



7 Universal Dividing Head.



8 Universal Tilting Rotary.



9 ER Collet Milling Chuck Set With Specialized Sizes.



10 OZ Collet Milling Chuck.



11 Halogen Working Lamp.

STANDARD ACCESSORIES

- Cutting Fluid Supply Mechanism 1 Unit
- Tools And Box..... 1 Set
- Levelling Blocks..... 6 Pcs (8V 8 Pcs)
- Levelling Bolts And Nuts..... 6 Sets (8V 8 Sets)
- Draw Bar..... 1 Pcs



11 Narex-czech. Made Universal Boring And Facing Head Set.

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