

**L&W
MACHINE**

Global Sales Network



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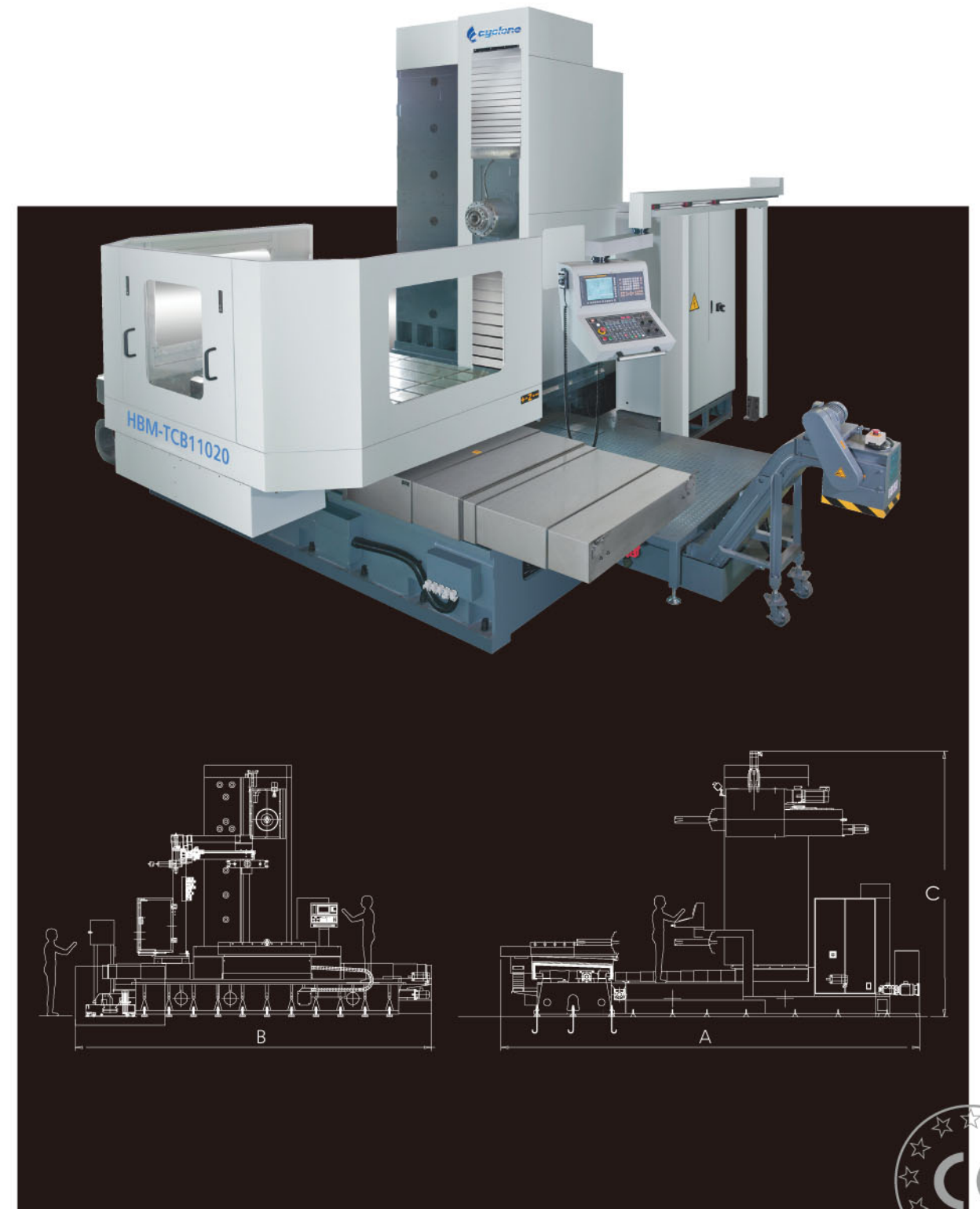
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2012.12.2000



HBM SERIES HORIZONTAL BORING & MILLING MACHINES



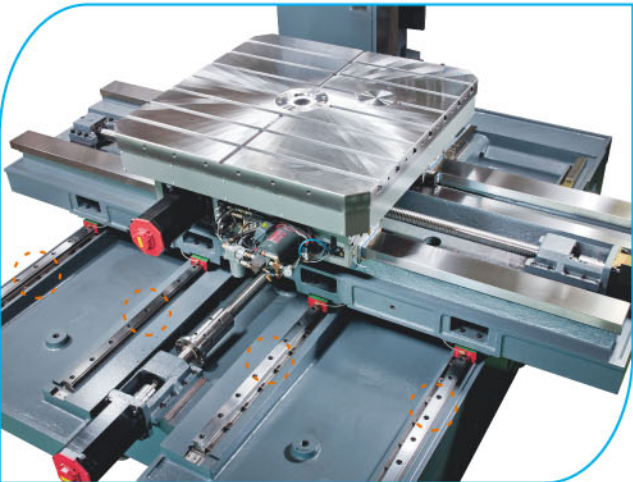
HBM-FCB SERIES

FIXED COLUMN WITH B AXIS CNC HORIZONTAL BORING & MILLING MACHINE

- Fixed column construction.
- Spindle is driven by a gearbox.
- 0.001° indexing rotary table.
- Linear scales on X, Y, Z-axis.
- 40 tools chain type magazine.
- FANUC OiMD CNC control.

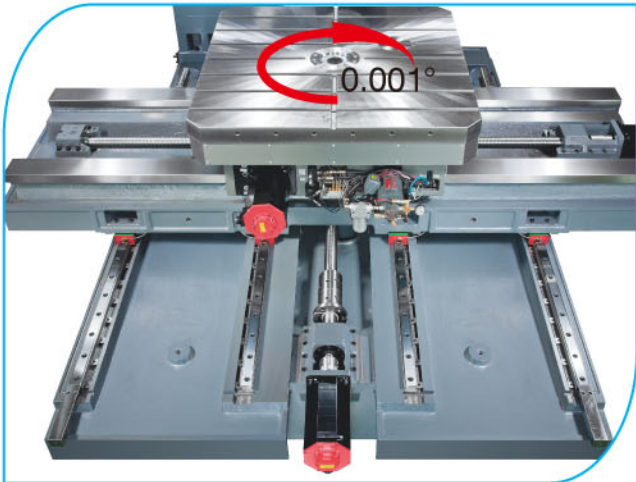


Minimum deflection of spindle extension (W-axis)



Four Linear Ways on Base (Z-axis)

- The table moves on four heavy duty roller type linear ways, which help to optimize moving rigidity and maintain constant accuracy.



0.001° Indexing Rotary Table

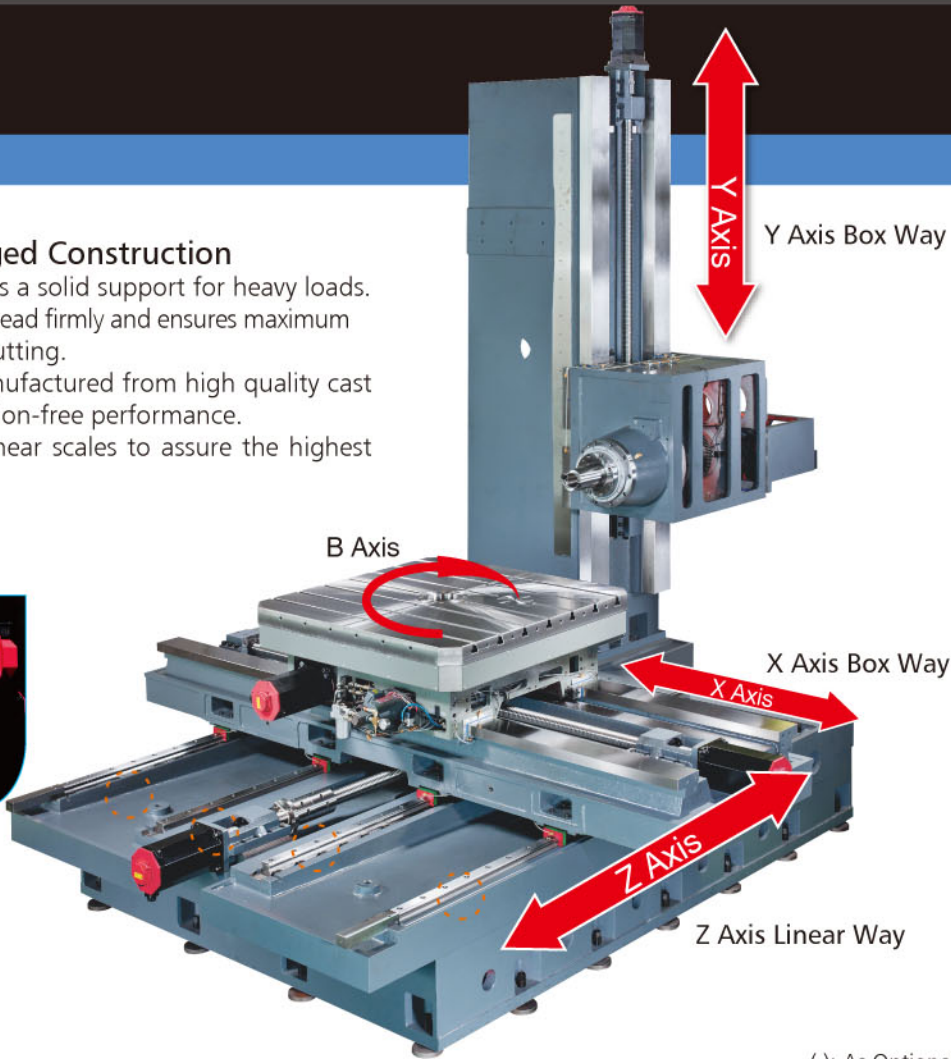
- The direct drive rotary table measures 1,250 x 1,250 mm.
- 0.001° indexing accuracy.
- Automatic positioning at every 90°.

Maximize Stability with Rugged Construction

- Massive base construction provides a solid support for heavy loads.
- Heavy column supports the spindle head firmly and ensures maximum stability when performing heavy cutting.
- The entire structural parts are manufactured from high quality cast iron with stress relief for deformation-free performance.
- X, Y, Z-axes are equipped with linear scales to assure the highest positioning accuracy.
- Box ways on X and Y axis.
- 4-linear guide way on Z axis.



FANUC A15 / 7000 with GERMAN ZF gear box 1:8 gear ratio



SPECIFICATIONS:

MODEL		UNIT	HBM-FCB11020
TABLE	Table Size	mm	1250 x 1250 x 0.001°
	T-Slots	mm	22 x 7
	Maximum Load	kg	5000
TRAVEL	X Axis	mm	2000
	Y Axis	mm	1700
	Z Axis	mm	1400
	W Axis	mm	400
SPINDLE	Diameter	mm	Ø110
	Speed	rpm	10~2500
	Taper		7/24 taper ISO.50, BT-50
DISTANCES	Spindle Center to Table	mm	0~1700
	Spindle Nose to Table Center	mm	60~1860
	Height from Ground to Table Surface	mm	1280
MOTOR	Spindle Motor	Kw	15 / 18.5 (22 / 26)
	X / Y / Z / W / B Axial Motor	Kw	7 / 7 / 7 / 4 / 7
OTHERS	Coolant Tank	L	400
	Power Requirement	kva	45
	Machine Weight	kg	26000

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Standard Accessories

1. Linear scales on X, Y, Z axes
2. Spindle oil cooler
3. Automatic power off
4. Hydraulic system
5. Coolant system
6. Lubricator system
7. Alarm lamp
8. Work lamp
9. M.P.G.
10. RS232 interface
11. Heat exchanger
12. Chip conveyor and cart
13. Leveling bolts & pads
14. Controller manuals and circuit diagram
15. Operation manuals
16. Machine inspection lists
17. Splash guards (around the table)
18. Toolbox with spanners & wrenches
19. FANUC OiMD
20. ATC: 40 Tools

Optional Accessories

1. ATC: 60 Tools
2. Oil mist device
3. Variety of controllers (FANUC/MELDAS/SIEMENS/HEIDENHAIN/SELCA)
4. Various auxiliary work tables are available
5. Air conditioner in cabinet
6. Extension sleeve (250mm / 300mm)
7. Coolant through spindle
8. Indexing table 1200 x 1200 x 360D (with X Axis-linear guide way)

HBM-TCB SERIES

Z AXIS TRAVEL COLUMN WITH B AXIS CNC HORIZONTAL BORING & MILLING MACHINE

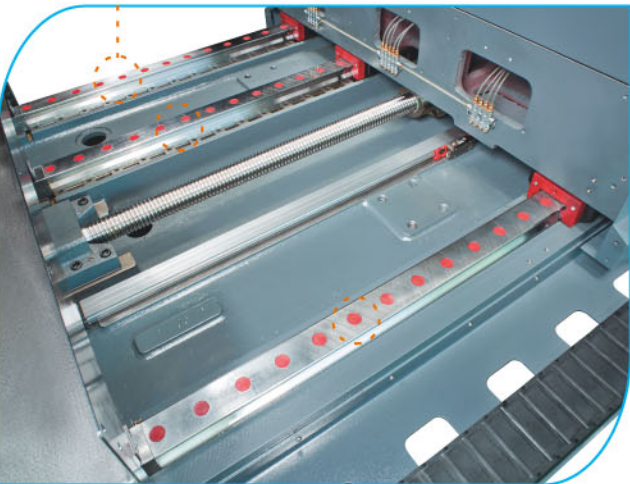
- Traveling column construction.
- Spindle is driven by a gearbox.
- 0.001° indexing rotary table.
- Linear scales on X, Y, Z-axis.
- 40 tools chain type magazine
- FANUC 0iMD CNC control.



Minimum deflection of spindle extension (W-axis)

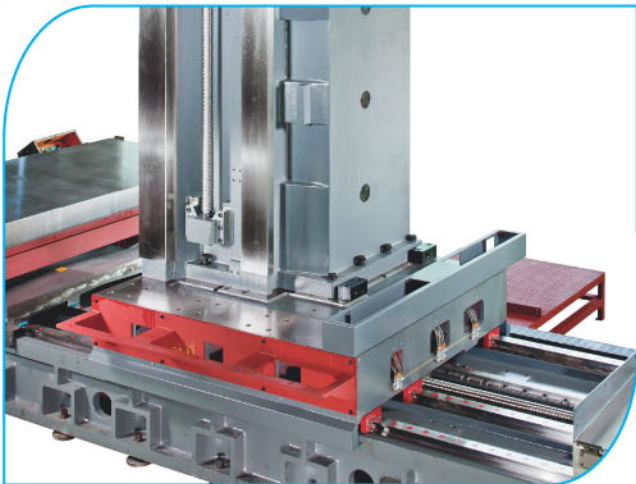


Z Axis 3-MRD 65 Schneebberger
Roller Type Linear Guide Way



Column Moves on Three Linear Ways (Z-axis)

- Three heavy duty roller type linear ways are mounted on the column slideways (Z-axis), which improve positioning accuracy due to reduced stick slip and low coefficient of friction.

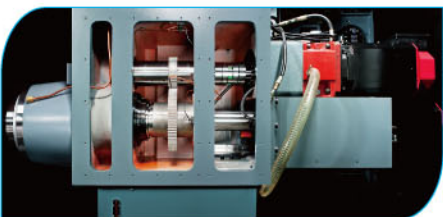


Traveling Column

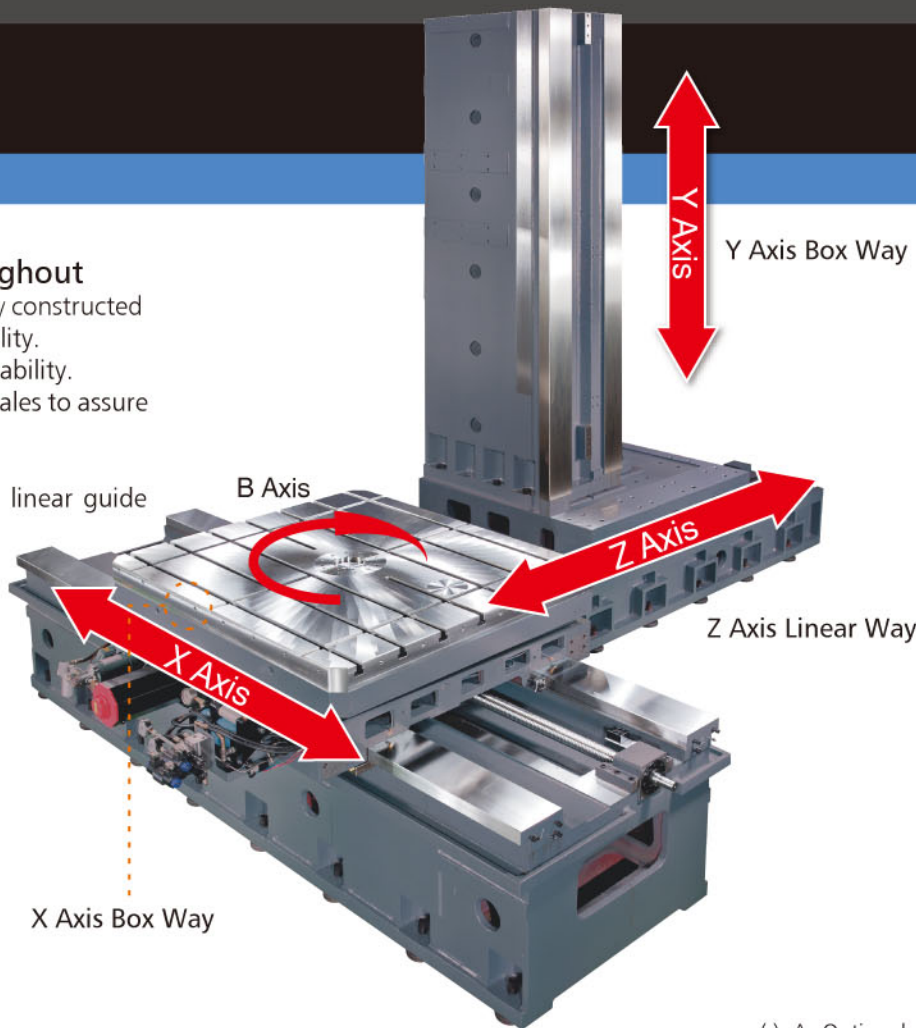
- The box type column is a rugged construction in combination with internal rib reinforcement to dampen vibration, while ensuring machining accuracy.

Highly Rigid Construction Throughout

- The entire machine structure is ruggedly constructed to exhibit exceptional rigidity and stability.
- T-Shaped base features outstanding stability.
- X, Y, Z-axes are equipped with linear scales to assure the highest positioning accuracy.
- Box ways on X and Y axis.
- 3-MRD 64 SCHNEEBERGER roller type linear guide way on Z axis.



- HBM-TCB 110xx - FANUC A15 / 7000 with TAIWAN-made gear box 1:10 gear ratio
- HBM-TCB 130xx - FANUC A15 / 7000 with GERMAN ZF gear box 1:16 gear ratio



SPECIFICATIONS:

MODEL		UNIT	HBM-TCB11020	HBM-TCB11025	HBM-TCB11032	HBM-TCB11042	HBM-TCB13032	HBM-TCB13042
TABLE	Table Size	mm	1600 x 1400 x 0.001°				2000 x 1800 x 0.001°	
	T-Slots	mm	24 x 7				28 x 9	
	Maximum Load	kg	8000				15000 (20000)	
TRAVEL	X Axis	mm	2000	2500	3200	4200	3200	4200
	Y Axis	mm	2000 (2500)				(2000) 2500 (3000)	
	Z Axis	mm	1700				2000	
	W Axis	mm	550				700 (900)	
SPINDLE	Diameter	mm	Ø110				Ø130	
	Speed	rpm	10~2500				10~2000	
	Taper		7/24 taper ISO.50, BT-50				7/24 taper ISO.50, BT-50	
DISTANCES	Spindle Center to Table	mm	0~2000 (2500)				(0~2000) 0~2500 (0~3000)	
	Spindle Nose to Table Center	mm	0~2250				50~2750	
	Height from Ground to Table Surface	mm	1225				1420	
MOTOR	Spindle Motor	Kw	15 / 18.5				15 / 18.5	
	X / Y / Z / W / B Axial Motor	Kw	7 / 7 / 7 / 4 / 7				9 / 7 / 9 / 4 / 7	
OTHERS	Coolant Tank	L	400				400	
	Power Requirement	kva	55				55	

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Standard Accessories

1. Linear scales on X, Y, Z axes
2. Spindle oil cooler
3. Automatic power off
4. Hydraulic system
5. Coolant system
6. Lubricator system
7. Alarm lamp
8. Work lamp
9. M.P.G.
10. RS232 interface
11. Heat exchanger
12. Chip conveyor and cart
13. Leveling bolts & pads
14. Controller manuals and circuit diagram
15. Operation manuals
16. Machine inspection lists
17. Splash guards (around the table)
18. Toolbox with spanners & wrenches
19. FANUC 0iMD
20. ATC: 40 Tools

Optional Accessories

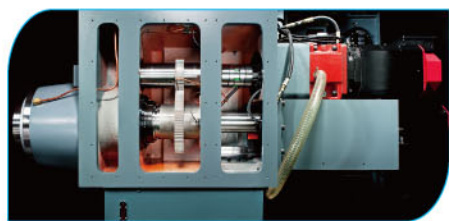
1. ATC: 60 Tools
2. Oil mist device
3. Variety of controllers (FANUC/MELDAS/SIEMENS/HEIDENHAIN/SELCA)
4. Various auxiliary work tables are available
5. Air conditioner in cabinet
6. Extension sleeve (260mm / 300mm / 500mm)
7. Coolant through spindle
8. Various work tables are available
For model HBM-TCB110xx (1800 x 1600)
For model HBM-TCB130xx (2200 x 2000, 2400 x 2200)
9. Manual 90° angular milling head
10. Facing head

HBM-630, HBM-800 SERIES

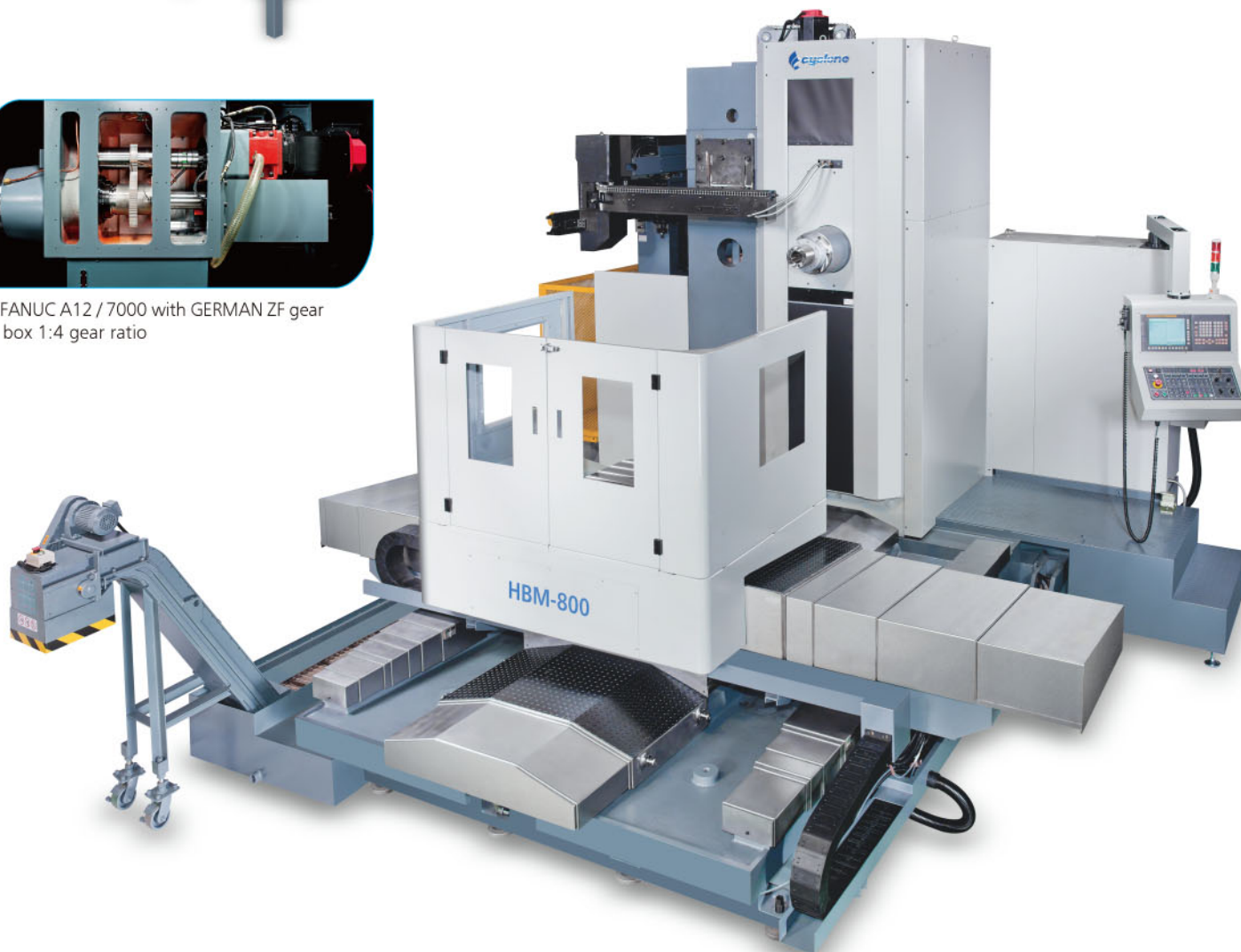
FIXED SPINDLE QUILL WITH INDEXING TABLE CNC HORIZONTAL BORING & MILLING MACHINE



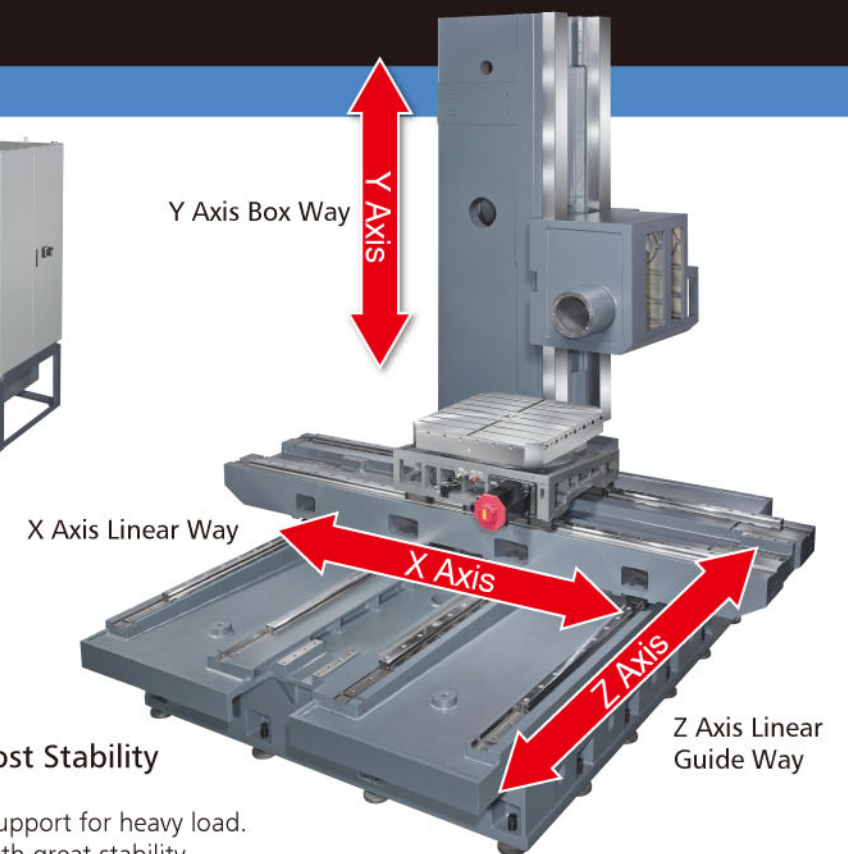
- Fixed column construction.
- Fixed spindle.
- 5°/72 indexing rotary table is standard of HBM-630.
- 1°/360 indexing rotary table is standard of HBM-800.
- Spindle is driven by a gearbox.
- Linear scales on X, Y, Z-axis.
- 40 tools chain type magazine.
- FANUC 0iMD CNC control.



• FANUC A12 / 7000 with GERMAN ZF gear box 1:4 gear ratio



Structure of HBM-630



Structure of HBM-800

Heavy Duty Construction Helps to Boost Stability

- Linear guide way on X, Z axis.
- Four linear ways on the base provide stable support for heavy load.
- Box ways on Y-axis allow for heavy cutting with great stability.
- X, Y, Z-axes are equipped with linear scales to assure the highest positioning accuracy.

SPECIFICATIONS:

(): As Optional

	MODEL	UNIT	HBM-630	HBM-800
TABLE	Table Size	mm	630 x 630	800 x 800
	T-Slots	mm	20 x 5	22 x 7
	Maximum Load	kg	1500	2500
	Indexing Degree	mm	5°/72 (1°/360)	1°/360
TRAVEL	X Axis	mm	1500 (1600)	2000
	Y Axis	mm	1200	1400 (1700)
	Z Axis	mm	1000 (1100)	1400 (1600)
SPINDLE	Speed	rpm	4000 (6000)	
	Taper		7/24 taper ISO.50, BT-50	
DISTANCES	Spindle Center to Table	mm	0~1200	0~1400 (1700)
	Spindle Nose to Table Center	mm	225~1225 (1325)	220~1620 (1820)
	Height from Ground to Table Surface	mm	1110	1325
MOTOR	Spindle Motor	Kw	11 / 15	11 / 15
	X / Y / Z / B Axial Motor	Kw	3 / 3 / 4 / 3	4 / 4 / 4 / 3
	Coolant Tank	L	300	400
OTHERS	Power Requirement	kva	30	45
	Machine Weight	kg	11000	14500

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Standard Accessories

- Linear scales on X, Y, Z axes
- Spindle oil cooler
- Automatic power off
- Hydraulic system
- Coolant system
- Lubricator system
- Alarm lamp
- Work lamp
- M.P.G.
- RS232 interface
- Heat exchanger
- Chip conveyor and cart
- Leveling bolts & pads
- Controller manuals and circuit diagram
- Operation manuals
- Machine inspection lists
- Splash guards (around the table)
- Toolbox with spanners & wrenches
- FANUC 0iMD
- ATC : 40 Tools

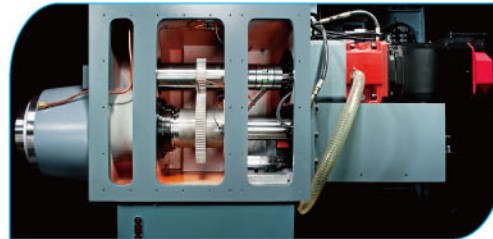
Optional Accessories

- ATC : 60 Tools
- Oil mist device
- Variety of controllers (FANUC/MELDAS/SIEMENS/HEIDENHAIN/SELCA)
- Various auxiliary work tables are available
- Air conditioner in cabinet
- Coolant through spindle
- Various work tables are available
For model HBM-630 (700 x 700, 700 x 900)
For model HBM-800 (800 x 1000, 1000 x 1000)
- Indexing table 0.001° (For model HBM-630)
- Oil-feed holder
- Spindle nose extended 50mm.

HBM-TCL SERIES

Z AXIS TRAVEL COLUMN / LONG TABLE CNC HORIZONTAL BORING & MILLING MACHINE

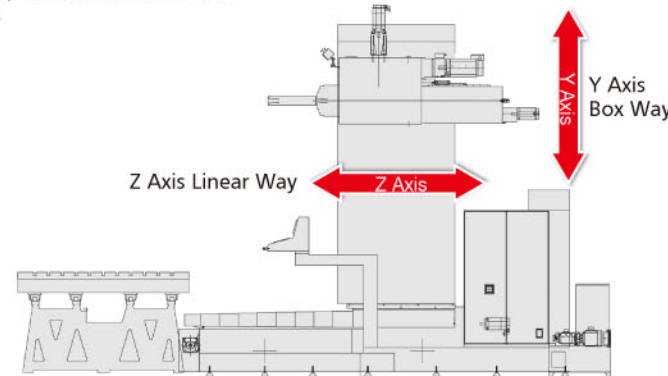
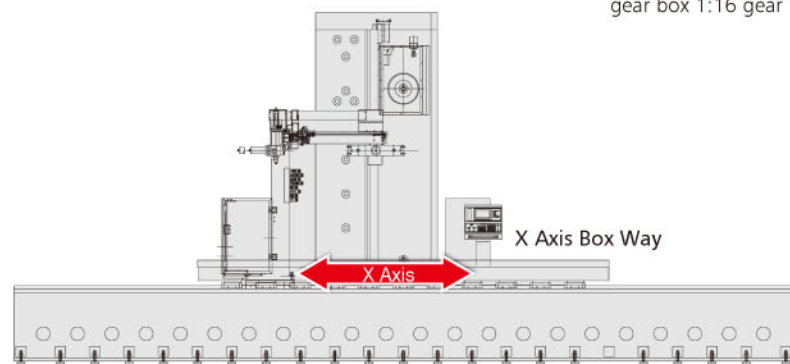
- Traveling column construction.
- Extra long table.
- Choice of various table sizes.
- Spindle is driven by a gearbox.
- Linear scales on X, Y, Z-axis.
- 40 tools chain type magazine
- FANUC 0iMD CNC control.



- TCL 110xx - FANUC A15 / 7000 with TAIWAN-made gear box 1:10 gear ratio
- TCL 130xx - FANUC A15 / 7000 with GERMAN ZF gear box 1:16 gear ratio



- Minimum deflection of spindle extension (W-axis)



SPECIFICATIONS:

MODEL		UNIT	HBM-TCL11022	HBM-TCL11032	HBM-TCL11042	HBM-TCL13052	HBM-TCL13062
TABLE	Table Size	mm	2000 x 1400	3000 x 1400	4000 x 1400	5000 x 2500	6000 x 2500
	T-Slots	mm	22	22	22	28	28
	Maximum Load	kg	10000	12000	15000	30000	40000
TRAVEL	X Axis	mm	2200	3200	4200	5200	6200
	Y Axis	mm	2000 (2500)		2500 (3000)		
	Z Axis	mm	1700		2000		
	W Axis	mm	500		700 (900)		
SPINDLE	Diameter	mm	Ø110		Ø130		
	Speed	rpm	10~2500		10~2000		
	Taper		7/24 taper ISO.BT-50		7/24 taper ISO.BT-50		
DISTANCES	Spindle Center to Table	mm	0~2000 (2500)		0~2500 (3000)		
	Spindle Nose to Table Center	mm	0~2250		200~2900 (0~2900)		
	Height from Ground to Table Surface	mm	1225		1420		
MOTOR	Spindle Motor	Kw	15 / 18.5		15 / 18.5		
	X / Y / Z / W / B Axial Motor	Kw	7 / 7 / 7 / 4 / 7		9 / 7 / 9 / 4 / 7		
OTHERS	Coolant Tank	L	400		400		
	Power Requirement	kva	55		55		

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Standard Accessories

1. Linear scales on X, Y, Z axes
2. Spindle oil cooler
3. Automatic power off
4. Hydraulic system
5. Coolant system
6. Lubricator system
7. Alarm lamp
8. Work lamp
9. M.P.G.
10. RS232 interface
11. Heat exchanger
12. Chip conveyor and cart
13. Leveling bolts & pads
14. Controller manuals and circuit diagram
15. Operation manuals
16. Machine inspection lists
17. Splash guards (around the table)
18. Toolbox with spanners & wrenches
19. FANUC 0iMD
20. ATC : 40 Tools

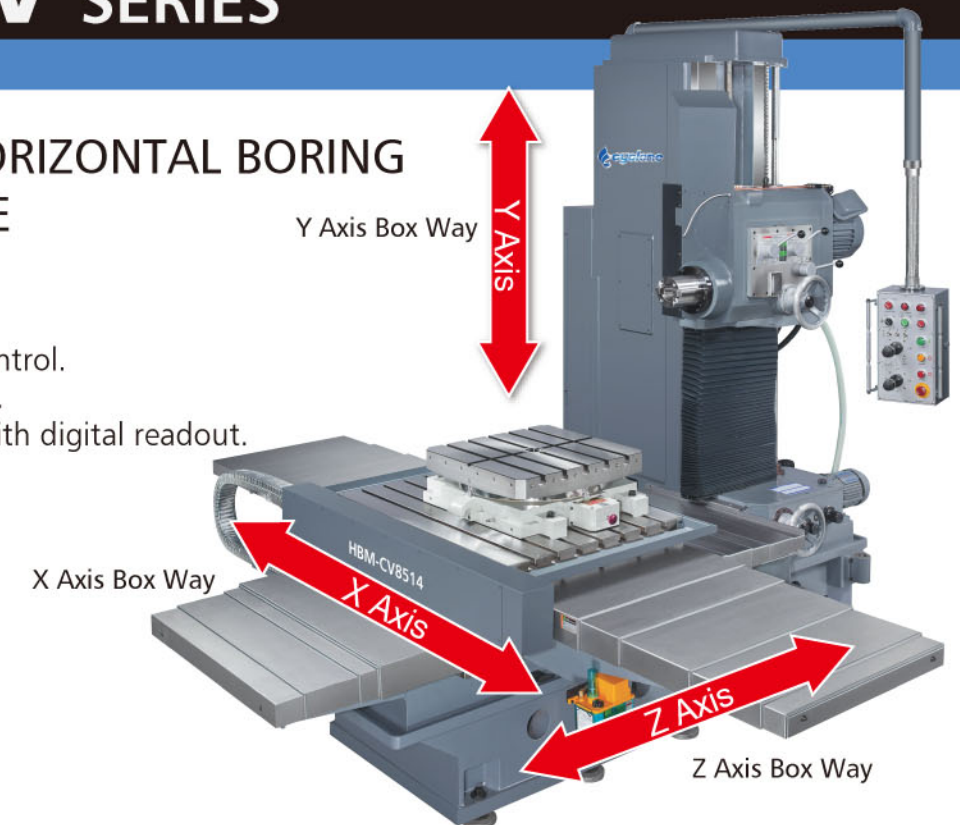
Optional Accessories

1. ATC : 60 Tools
2. Oil mist device
3. Variety of controllers (FANUC/MELDAS/SIEMENS/HEIDENHAIN/SELCA)
4. Various auxiliary work tables are available
5. Air conditioner in cabinet
6. Extension sleeve (250mm / 300mm)
7. Coolant through spindle
8. Manual 90° angular milling head
9. Facing head

HBM-CV SERIES

CONVENTIONAL HORIZONTAL BORING & MILLING MACHINE

- Fixed column construction.
- Fixed spindle.
- Pendant type conventional control.
- Spindle is driven by a gearbox.
- Linear scales on X, Y, Z-axis with digital readout.
- Rotary table is optional.



Robust Structure Assures Outstanding Stability

- X, Y, Z-axis are box ways with large span between ways for increased rigidity and stability.
- Box ways are hardened and coated with Turcite-B and precision scraped.
- Linear scales on X, Y, Z-axis combined with display for high positioning accuracy.
- All structural parts are ruggedly constructed with rib reinforcement for deformation-free performance.

SPECIFICATIONS:

MODEL		UNIT	HBM-CV8514	HBM-CV8516	HBM-CV8520
TABLE	Table Size	mm	800 x 1100		800 x 1400
	T-Slots	mm	20 x 7		
	Maximum Load	kg	1500		2000
TRAVEL	X Axis	mm	1400	1600	2000
	Y Axis	mm	1200 (1400)		1400 (1700)
	Z Axis	mm	1000		1200 (1400)
SPINDLE	Speed	rpm	45~1500		
	Taper		NT-50 (BT-50)		
DISTANCES	Spindle Center to Table	mm	0~1200 (0~1400)		0~1400 (1700)
	Spindle Nose to Table Center	mm	208~1208		300~1500 (300~1700)
	Height from Ground to Table Surface	mm	926		
MOTOR	Spindle Motor	Kw	5.5x4P(6P) / 7.5x4P(6P)	5.5x4P(6P) / 7.5x4P(6P)	7.5x4P(6P)
	X / Y / Z Axial Motor	Kw	0.75	0.75	0.75
OTHERS	Power Requirement	kva	9	9	9
	Machine Weight	kg	7500	7500	11500

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Standard Accessories

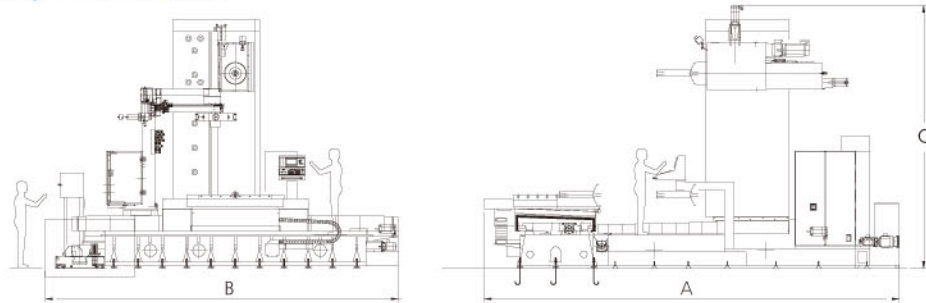
1. Hydraulic pump
2. Lubrication system (For 3 axes guide ways)
3. Adjusting tool kit
4. Linear scales & display
5. Air clamping device
6. Tapping (with tapping head)

Optional Accessories

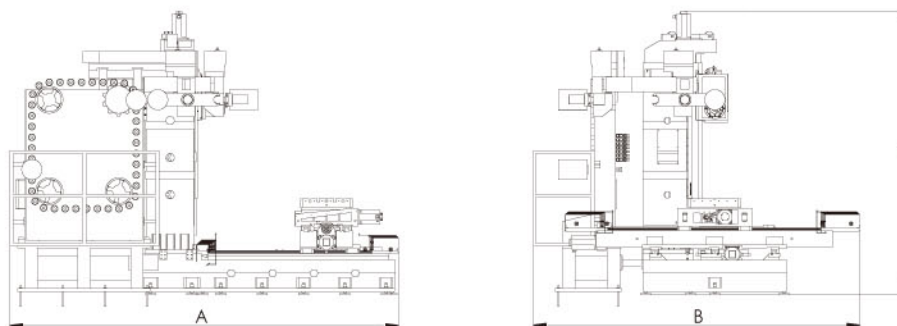
1. Various rotary tables are available
 - 600 mm x 600 mm x 72D
 - 600 mm x 600 mm x 360D
 - 700 mm x 700 mm x 72D
 - 700 mm x 700 mm x 360D
 - 800 mm x 800 mm x 72D
 - 800 mm x 800 mm x 360D

Machine Dimensions Torque Chart

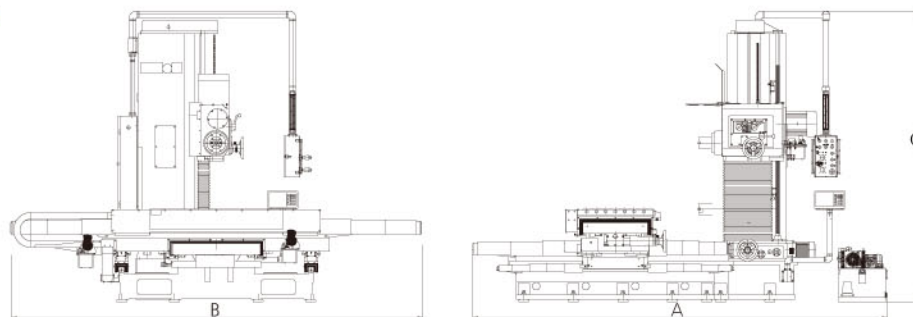
HBM-FCB/TCB/TCL SERIES



HBM-630, HBM-800 SERIES



HBM-CV SERIES



Machine Dimensions:

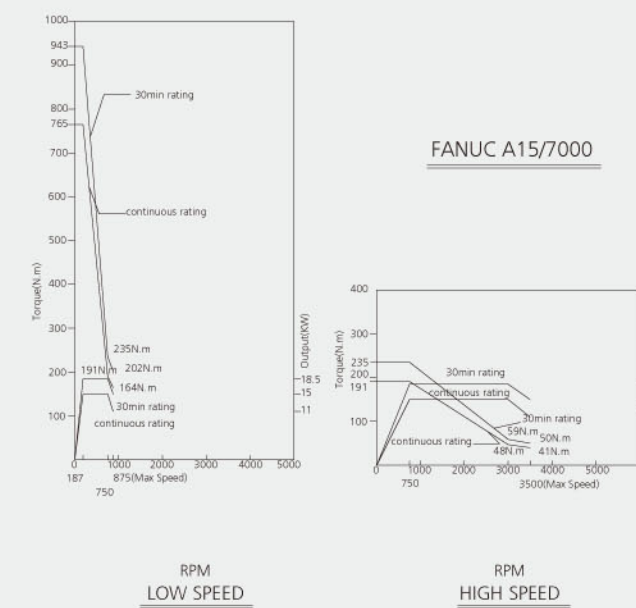
MODEL	(A) Length	(B) Width	(C) Height
HBM-FCB11020	6200	4700	4200
HBM-TCB11020	7200	6100	4500
HBM-TCB11025	7200	6600	4500
HBM-TCB11032	7200	7300	4500
HBM-TCB11042	7200	8300	4500
HBM-TCB13032	8500	7800	5500
HBM-TCB13042	8500	9000	5500
HBM-TCL11022	7200	5600	4500
HBM-TCL11032	7200	7700	4500
HBM-TCL11042	7200	10100	4500
HBM-TCL13052	10000	13100	6000
HBM-TCL13062	10000	16700	6000
HBM-630	6100	4400	3500
HBM-800	6200	4700	3900
HBM-CV8514	4100	3300	2900
HBM-CV8516	4100	3500	2900
HBM-CV8520	4400	4600	3100

Unit: mm

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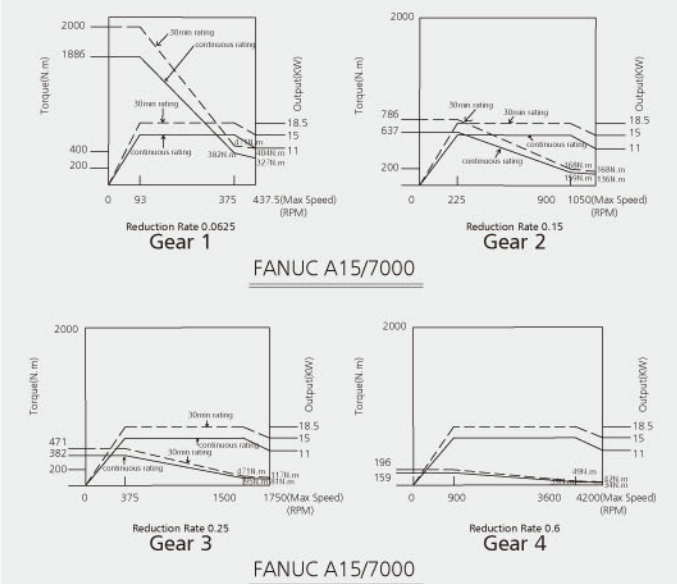
HBM-FCB SERIES

- FANUC A15 / 7000 with GERMAN ZF gear box 1:8 gear ratio



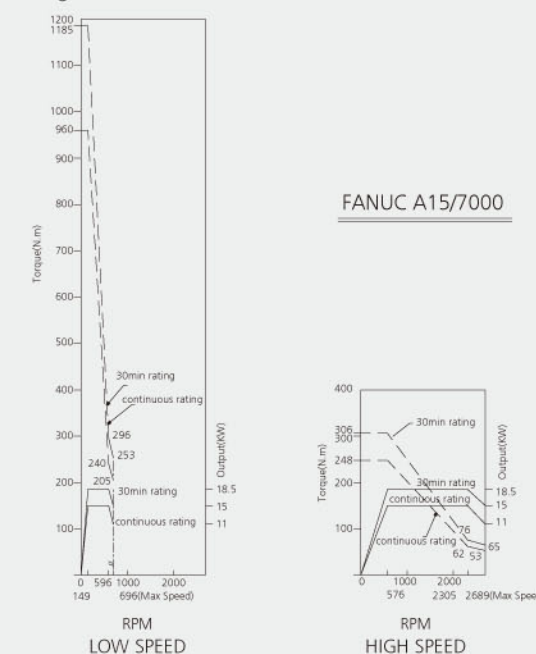
HBM-TCB SERIES

- TCB 110xx - FANUC A15 / 7000 with TAIWAN-made gear box 1:10 gear ratio
- TCB 130xx - FANUC A15 / 7000 with GERMAN ZF gear box 1:16 gear ratio



HBM-TCL SERIES

- TCL 110xx - FANUC A15 / 7000 with TAIWAN-made gear box 1:10 gear ratio
- TCL 130xx - FANUC A15 / 7000 with GERMAN ZF gear box 1:16 gear ratio



HBM-630, HBM-800 SERIES

- FANUC A12 / 7000 with GERMAN ZF gear box 1:4 gear ratio

