

BED TYPE UNIVERSAL MILLING MACHINE

KMB/POINT

KMB/POINT-U3 KMB/POINT-U5 KMB/POINT-U6 KMB/POINT-U7

KMB : MANUAL

POINT : ONE AXIS CNC CONTROL(HEIDENHAIN TNC124)



COLUMN, BED, SADDLE

/ COLUMN

- (KMB - U7, KMB - U6)
- The column is of a rugged box-type construction and its ground slide ways are wide to support and guide securely the spindle head. (The column of KMB-U7, KMB-U6 is hardened and ground.)

/ BED

- The bed is composed of one piece construction with double box for lubricating oil and coolant. The hardened and ground slide ways of the bed provide high stability to the saddle.

/ SADDLE

- The saddle has a rigid box-type construction to cope with loads during heavy-duty cutting. It is supported by the wide slide ways of the bed to assure stable movement.

/ B-PLASTIC

- B-plastic
- B-PLASTIC (Anti-friction material) ensures the smooth movement of the axis.



FEED MECHANISM

- AC 가 가

- An AC servo motor is adopted for infinitely variable feed movement. Feed change by dial on a panel makes easier operation and appropriate choice of feed speed.



AC SERVO MOTOR



BALL SCREW

- High precision ball screws having double pre-loaded nut on each axis ensures smooth movement, accuracy and rigidity.



AUTOMATIC LUBRICATOR

- The slideway and ballscrew of all axis are properly lubricated with automatic lubricator.

HEAD

UNIVERSAL BI-ROTARY HEAD

- The universal bi-rotary head consisting of upper head and lower head can be turned to any desired angle. Therefore vertical, horizontal and combined angle milling is available.



M.P.G Handle (Optional)

- M.P.G Handle
- Electronic handwheel enables operator to access to the work piece for easier operation.



HYDRAULIC TOOL CLAMPING

- Universal bi-rotary head is fitted with hydraulic tool clamping. When a tool change is required, push button switch is used for a light tool, meanwhile pedal switch is used for a heavy tool. This saves the operator considerable time when a tool change is required.



SPINDLE

- 12~18 spindle speeds can be selected with three levers on the headstock. Electromagnetic brake fitted on the spindle.

BED TYPE UNIVERSAL MILLING MACHINE

KMB- U3/U5

MANUAL

POINT - U3/U5

ONE AXIS CNC CONTROL(HEIDENHAIN TNC 124)

- TABLE SIZE
 - ▶ 1700×470 mm
 - ▶ 2000×530 mm
- TRAVEL (X-Axis) ▶ 1200 mm
- ▶ 1400 mm
- (Y-Axis) ▶ 600 mm
- (Z-Axis) ▶ 550 mm
- ▶ 650 mm



MACHINE SPECIFICATION

		DESCRIPTION	UNIT	KMB-U3 KMB-U5	POINT-U3 POINT-U5
TABLE	(×)	Table size (length x width)	mm	1700 x 470	2000 x 530
	T- (×)	T-slots (number x width)	No. x mm	5 x 20	
	T-	Distance between T-slots	mm	80	
		Max. permissible load	Kg	1500	2000
TRAVEL		Longitudinal travel	mm	1200	1400
		Cross travel	mm	600	
	()	Height from table to vertical spindle nose	mm	40~590	40~690
	()	Height from table to horizontal spindle center	mm	50~600	50~700
FEED	,	Longitudinal & Cross feedrate	mm/min	2000	
		Vertical feedrate	mm/min	1000	
		No. of feeds	No.		
	,	Longitudinal & Cross rapid feedrate	mm/min	5000	
		Vertical rapid feedrate	mm/min	2500	
SPINDLE		Taper		NT50	
		No. of spindle speeds	No.	12	
		Speed	rpm	50Hz 40~1720	60Hz 40~1620
		Distance from column to vertical spindle center	mm	570	
MOTOR		Distance from column to horizontal spindle nose	mm	580	
		Spindle drive motor	Kw	7.5	
		Feed drive motor	Kw	4.2	
		Coolant pump motor	Kw	0.1	
		Hydraulic clamping motor	Kw	0.75	
	Approx. machine net weight	kg	6000	7000	
	(가 × ×)	Floor space (length x width x height)	mm	3960 x 2450 x 2600	4660 x 2525 x 2700
	(가 × ×)	Packing size (length x width x height)	mm	2580 x 2330 x 2850	2680 x 2430 x 2950

. The contents of the catalogue are subject to change without prior notice.

CUTTING DATA

TEST PIECE	Material	SM45C
	Dimensions	600 x 400 x 300mm
CUTTER USED	Type	Face mill
	Diameter	160mm
	No. of teeth	10
	Material	P20

DESCRIPTION	MACHINE	KMB-U3, U5 POINT-U3, U5
CUTTING CONDITIONS	Spindle speed	210 r.p.m
	Cutting speed	105.5 m/min
	Cutting depth	4, 5 mm
	Feed per tooth	0.12 mm
	Feed	250 mm/min
	Cutting volume	160, 200 cm ³ /min
MACHINING ACCURACY	Permissible deviation	300b x 500 mm
	Straightness	0.015 mm
	Surface trueness	0.02 mm

STANDARD ACCESSORIES

Tool box
Spanner
Driver (+, -)
Wrench
Lamp
Anchor bolt
Anchor plate
Locating bar
Pull stud : 3pcs

OPTIONAL ACCESSORIES

Digital readout
Horizontal attachment
Automatic cycle

BED TYPE UNIVERSAL MILLING MACHINE

KMB- U6

MANUAL

POINT - U6

ONE AXIS CNC CONTROL(HEIDENHAIN TNC 124)

- TABLE SIZE ▶ 2200×550 mm
- TRAVEL (X-Axis) ▶ 1600 mm
- (Y-Axis) ▶ 710 mm
- (Z-Axis) ▶ 700 mm



MACHINE SPECIFICATION

		DESCRIPTION	UNIT	KMB-U6	POINT-U6
TABLE	(×)	Table size (length x width)	mm	2200 x 550	
	T- (×)	T-slots (number x width)	No. x mm	5 x 20	
	T-	Distance between T-slots	mm	80	
		Max. permissible load	Kg	3000	
TRAVEL		Longitudinal travel	mm	1600	
		Cross travel	mm	710	
	()	Height from table to vertical spindle nose	mm	50~750	
	()	Height from table to horizontal spindle center	mm	60~760	
FEED	,	Longitudinal & Cross feedrate	mm/min	2000	
		Vertical feedrate	mm/min	1000	
		No. of feeds	No.		
	,	Longitudinal & Cross rapid feedrate	mm/min	5000	
		Vertical rapid feedrate	mm/min	2500	
SPINDLE		Taper		NT50	
		No. of spindle speeds	No.	12	
		Speed	rpm	40~1600(50/60Hz)	
		Distance from column to horizontal spindle center	mm	650	
		Distance from column to horizontal spindle nose	mm	660	
MOTOR		Spindle drive motor	Kw	11	
		Feed drive motor	Kw	4.2	
		Coolant pump motor	Kw	0.1	
		Hydraulic clamping motor	Kw	0.75	
		Approx. machine net weight	kg	8000	
(가 × ×)		Floor space (length x width x height)	mm	4760 x 2720 x 3050	
(가 × ×)		Packing size (length x width x height)	mm	2890 x 2610 x 3060	

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CUTTING DATA

TEST PIECE	Material	SM45C
	Dimensions	600 x 400 x 300mm
CUTTER USED	Type	Face mill
	Diameter	160mm
	No. of teeth	10
	Material	P20

DESCRIPTION	MACHINE	KMB-U6 POINT-U6
CUTTING CONDITIONS	Spindle speed	220 r.p.m
	Cutting speed	110.5 m/min
	Cutting depth	5,6 mm
	Feed per tooth	0.11 mm
	Feed	250 mm/min
	Cutting volume	200, 240 cm ³ /min
MACHINING ACCURACY	Permissible deviation	300b x 500 mm
	Straightness	0.015 mm
	Surface trueness	0.02 mm

STANDARD ACCESSORIES

Tool box
Spanner
Driver (+, -)
Wrench
Lamp
Anchor bolt
Anchor plate
Locating bar
Pull stud : 3pcs

OPTIONAL ACCESSORIES

Digital readout
Horizontal attachment
Automatic cycle

BED TYPE UNIVERSAL MILLING MACHINE

KMB- U7

MANUAL

POINT - U7

ONE AXIS CNC CONTROL(HEIDENHAIN TNC 124)

- TABLE SIZE** ▶ 2700×750 mm
- TRAVEL (X-Axis)** ▶ 2000 mm
- (Y-Axis)** ▶ 1000 mm
- (Z-Axis)** ▶ 800 mm



/ HYDRAULIC CLAMPING SYSTEM

가

- Cross and vertical axis is clamped automatically by hydraulic clamping system.



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- TABLE SIZE** ▶ 3300×750 mm
▶ 3900×750 mm
- TRAVEL (X-Axis)** ▶ 2600 mm
▶ 3200 mm
- (Y-Axis)** ▶ 1000 mm
- (Z-Axis)** ▶ 800 mm



Digital readout : Optional

MACHINE SPECIFICATION

		DESCRIPTION	UNIT	KMB-U7	POINT-U7
TABLE	(×)	Table size (length x width)	mm	2700 × 750	
				3300 × 750	
				3900 × 750	
	T- (×)	T-slots (number x width)	No. x mm	5 × 22	
	T-	Distance between T-slots	mm	120	
		Max. permissible load	Kg	4000	
TRAVEL		Longitudinal travel	mm	2000	
				2600	
				3200	
		Cross travel	mm	1000	
	()	Height from table to vertical spindle nose	mm	50~850	
()	Height from table to horizontal spindle center	mm	130~930		
FEED	,	Longitudinal & Cross feedrate	mm/min	2000	
		Vertical feedrate	mm/min	1000	
		No. of feeds	No.		
	,	Longitudinal & Cross rapid feedrate	mm/min	5000	
		Vertical rapid feedrate	mm/min	2500	
SPINDLE		Taper		NT50	
		No. of spindle speeds	No.	18	
		Speed	rpm	50Hz 15~1080	
				60Hz 18~1300	
		Distance from column to vertical spindle center	mm	875	
	Distance from column to horizontal spindle nose	mm	955		
MOTOR		Spindle drive motor	Kw	11	
		Feed drive motor	Kw	4.2	
		Coolant pump motor	Kw	0.18	
		Hydraulic clamping motor	Kw	1.5	
		Approx. machine net weight	kg	15000	
				16000	
				17000	
(가 × ×)		Floor space (length x width x height)	mm	5710 × 3410 × 3400	
				7950 × 3410 × 3400	
				9770 × 3410 × 3400	
(가 × ×)		Packing size (length x width x height)	mm	3120 × 3600 × 3550	
				3720 × 3600 × 3550	
				4320 × 3600 × 3550	

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CUTTING DATA

TEST PIECE	Material	SM45C
	Dimensions	600 × 400 × 300mm
CUTTER USED	Type	Face mill
	Diameter	200mm
	No. of teeth	12
	Material	P20

DESCRIPTION	MACHINE	KMB-U7 POINT-U7
CUTTING CONDITIONS	Spindle speed	170 r.p.m
	Cutting speed	107 m/min
	Cutting depth	5,6 mm
	Feed per tooth	0.15 mm
	Feed	300 mm/min
	Cutting volume	240, 288 cm ³ /min
MACHINING ACCURACY	Permissible deviation	300b × 500 mm
	Straightness	0.015 mm
	Surface trueness	0.02 mm

STANDARD ACCESSORIES

Tool box
Spanner
Driver (+, -)
Wrench
Lamp
Anchor bolt
Anchor plate
Locating bar
Pull stud : 3pcs

OPTIONAL ACCESSORIES

Digital readout
Direct horizontal spindle
Horizontal attachment
Automatic cycle

POINT - U3/U5/U6/U7

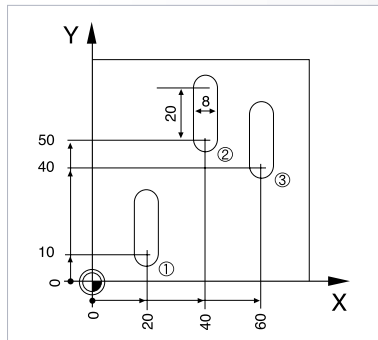


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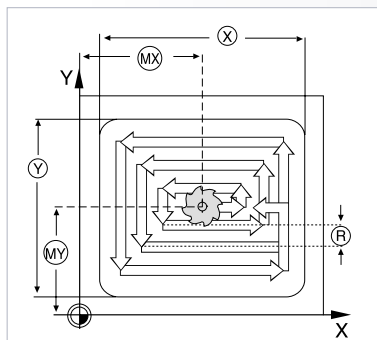
POINT-Series

· KMB TNC 124
1 NC가 가

· POINT series KIHEUNG milling machines with HEIDENHAIN TNC124 are fully adequate for a straight cut control for milling, drilling and tapping supported by a floating tap holder and even circular path with circle hole pattern up to 999 holes.



Rectangular pocket



Program blocks				
	BEGIN	PGM	60	MM
1	F	9999		
2	Z+20			
3	X+20	R0		
4	Y+10	R0		
5	TOOL	CALL	7	Z
6	S 1000			
7	M	3		
8	CALL	LBL	1	
9	X+40	R0		
10	Y+50	R0		
11	CALL	LBL	1	
12	X+60	R0		
13	Y+40	R0		
14	CALL	LBL	1	
15	Z+20			
16	M	2		
17	LBL	1		
18	F	200		
19	Z	10		
20	IY+20	R0		
21	F	9999		
22	nZ+2			
23	LBL	0		
24	END	PGM	60	MM

NC / NC SPECIFICATION

1. 20 (2000)
20 Program with a total of 2000 NC blocks
 2. , (99ea)
Tool radius and length compensation for 99 tools
 3.
Pitch error & backlash compensation
 4. (99ea)
99 datum points
 5.
Sub programming
 6. Jog
Manual, positioning with manual data input, program run, programming and editing
 7.
Graphic
 8. RS232C
RS232C Interface
- HEIDENHAIN linear encoder for positioning & repeatability accuracy.
 - HR130 MPG 가
 - HEIDENHAIN ELECTRONIC HANDWHEEL, HR130 enables operator to access to the work piece for easier operation.



Operating panel



Linear scale

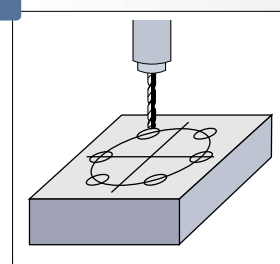


M.P.G Handle

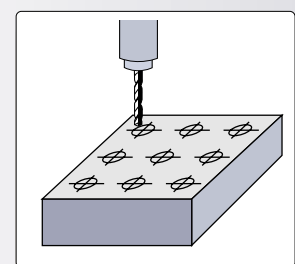
가 가

Standard cycles are provided for peck drilling, hole pattern, pocket milling and circular path.

1. Peck drilling cycle
2. Tapping cycle
3. 가
Circle hole pattern
4. 가
Linear hole pattern



Circle hole pattern



Linear hole pattern

OPTIONAL

KMB/POINT-U3, U5, U6

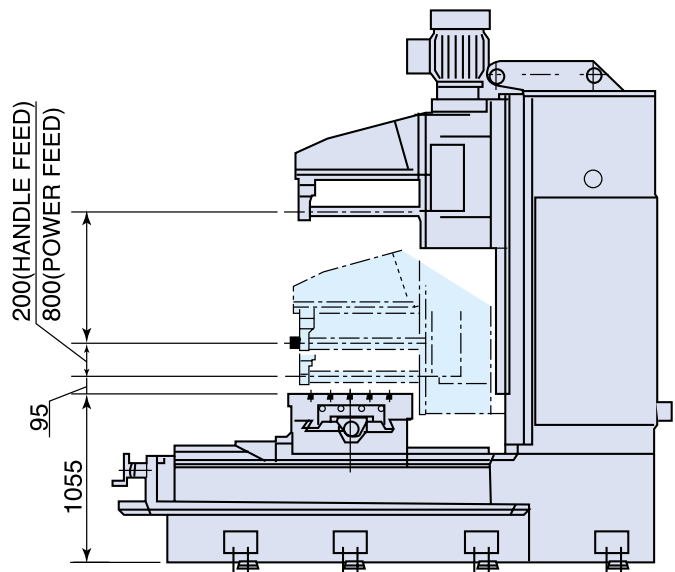
HORIZONTAL ATTACHMENT



KMB/POINT-U7

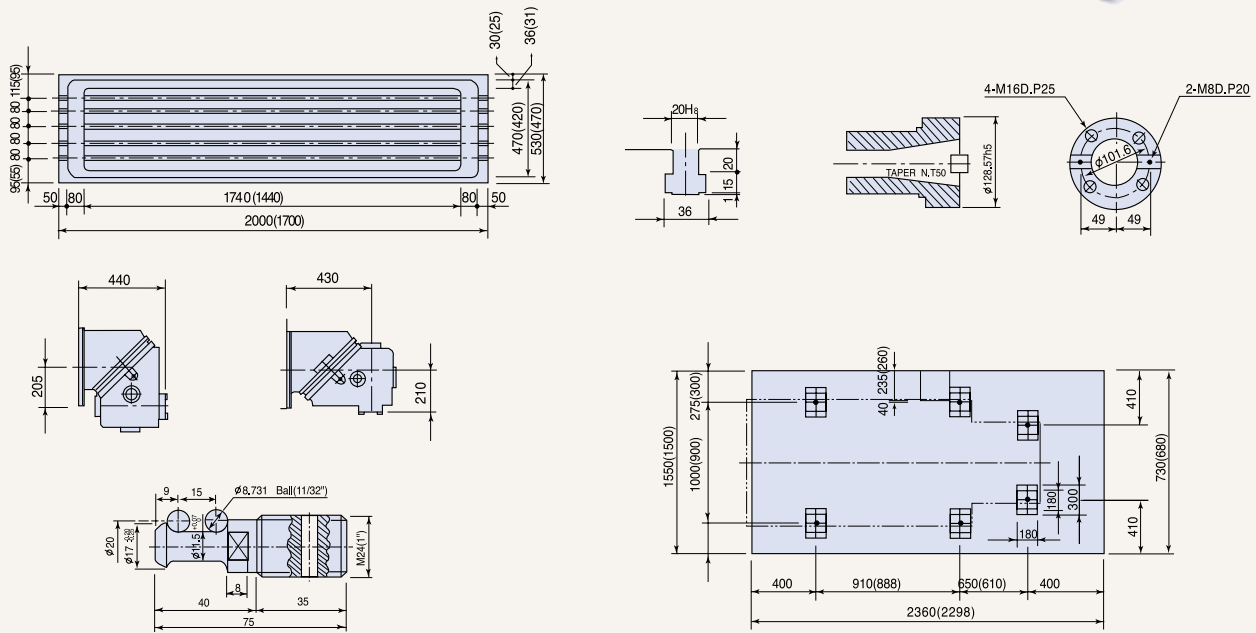
DIRECT HORIZONTAL SPINDLE

HORIZONTAL ATTACHMENT



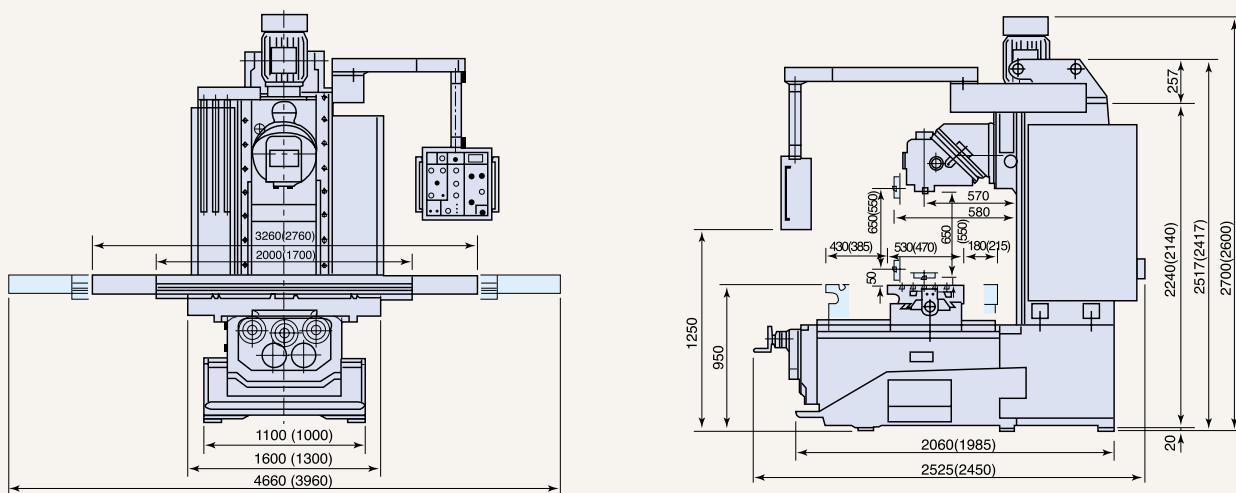
MACHINE DIMENSION

KMB/POINT-U3, KMB/POINT-U5



():KMB - U3

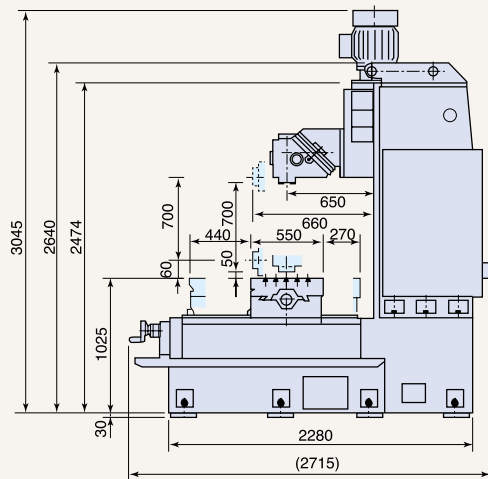
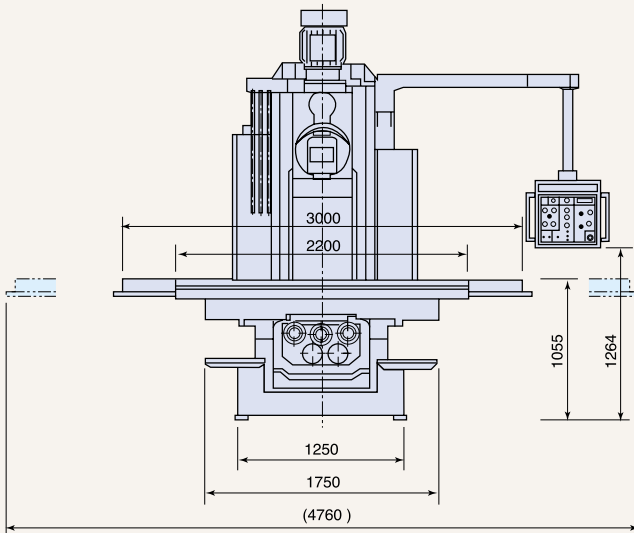
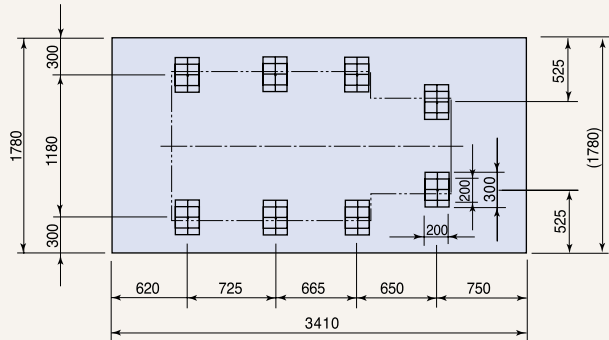
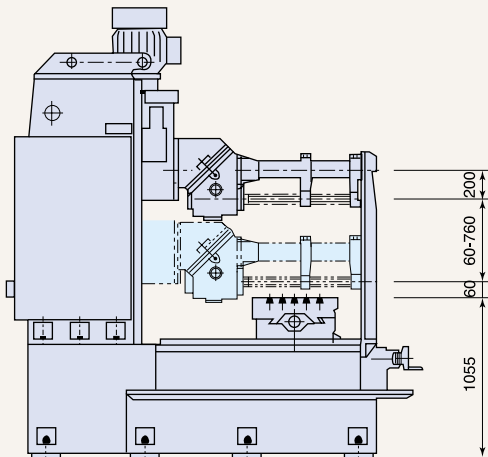
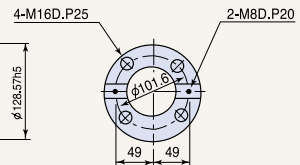
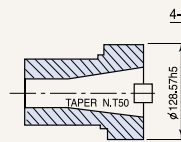
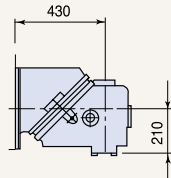
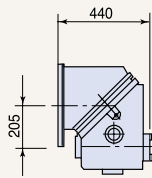
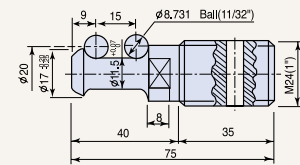
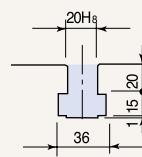
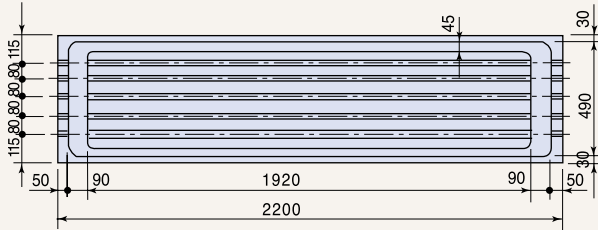
KMB/POINT-U3, KMB/POINT-U5



():KMB - U3

MACHINE DIMENSION

KMB/POINT-U6



MACHINE DIMENSION

KMB/POINT-U7



TABLE SIZE ▶ 2700×750 mm

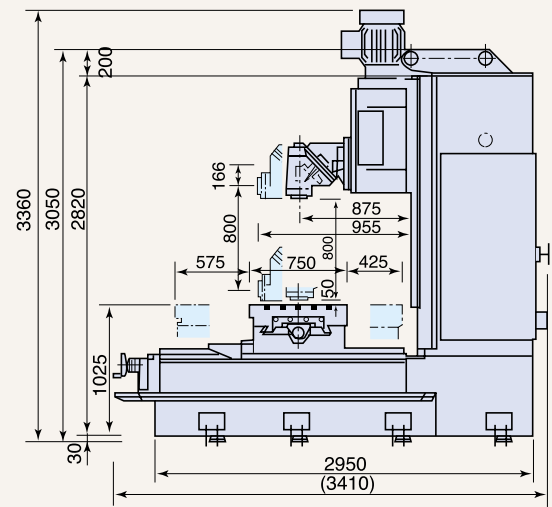
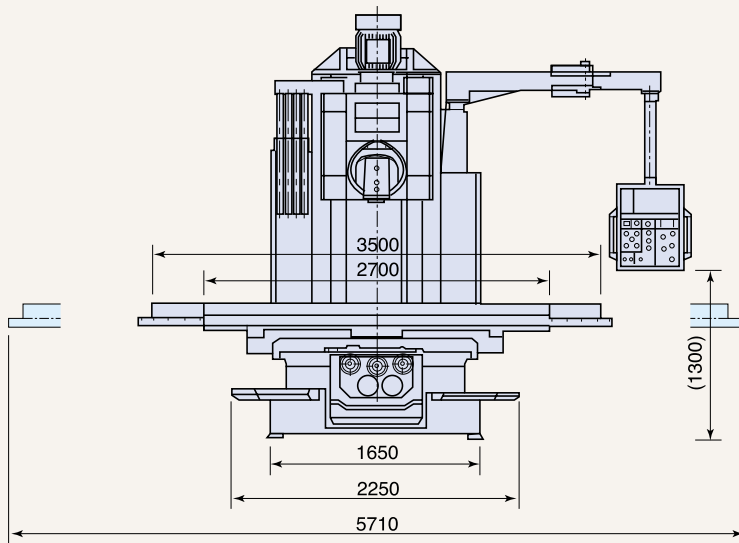
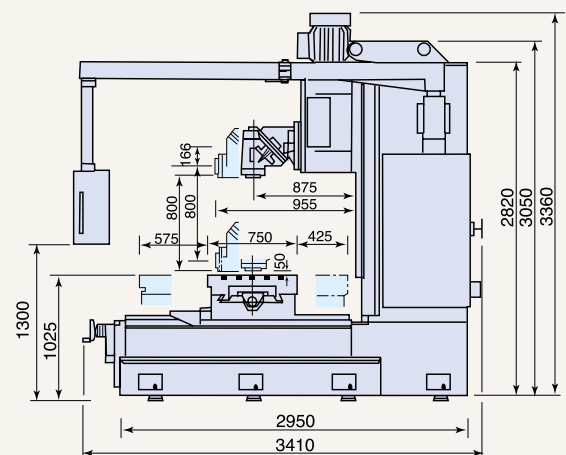
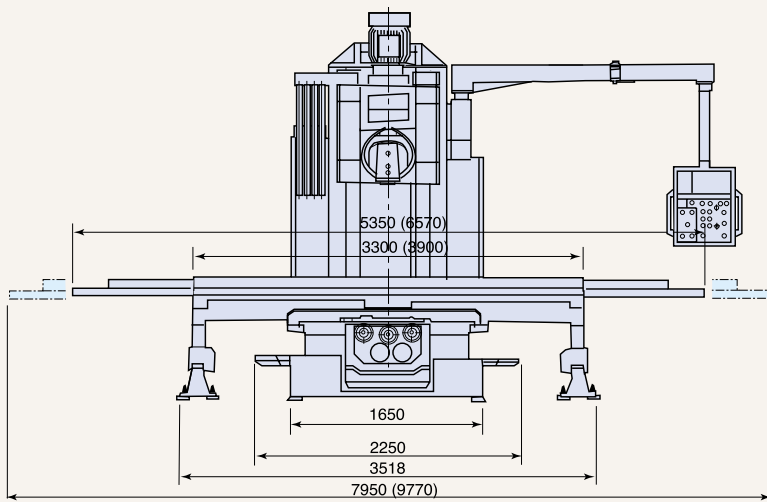


TABLE SIZE ▶ 3300×750 mm
3900×750 mm



Agent / Distributor



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