

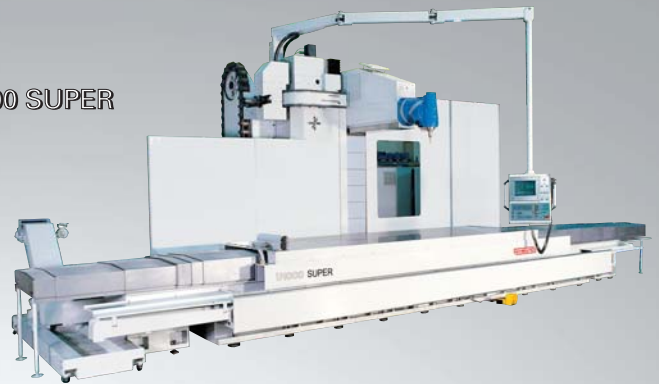
U1000 U1000 SUPER

CNC BED TYPE MILLING MACHINE

RT1000

CNC BED TYPE MILLING MACHINE WITH ROTARY TABLE

U1000 SUPER



RT1000



U1000

CNC Bed Type Milling Machine



Machine Specification		U1000	
TABLE	Surface	2500 / 3100 / 3600 × 900(1050)mm	4100 / 4500 / 5000 × 900(1050)mm
	T-slots	No.6 × 22mm (No.7 × 22mm)	
	Distance between T-slots	125 mm	
	Max. permissible load	8000kg (13000kg)	
TRAVEL	Longitudinal travel	2100 / 2600 / 3100mm	3600 / 4100 / 4500 / 5000mm
	Cross travel	1000mm (1250mm)	
	Vertical travel	1050mm (1350 / 1600 / 2000mm)	
FEED	Axis feedrate	5000mm/min	
	Rapid feedrate	X, Y : 12000, Z : 10000mm/min	10000mm/min
SPINDLE	Taper	50	
	Speed	4000rpm	
		2 steps : 0~1000, 1001~4000	
MOTOR	Spindle drive motor	28 / 38kw : Rated speed 1000rpm	
	Feed drive motor	X : 27, Y : 27, Z : 27Nm	X : 50 / 70 / 70 / 70, Y : 27, Z : 27Nm
WEIGHT	Approx. machine net weight	21~24 / 23~26 / 24~27ton	26 ~ 35ton

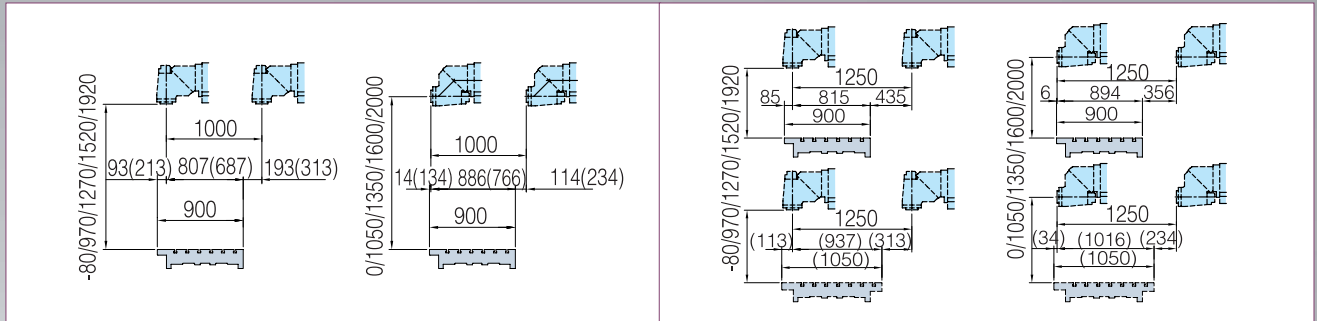
The contents of the catalogue are subject to change without prior notice.

() : Option

M Head

Cross travel 1000mm

Cross travel 1250mm

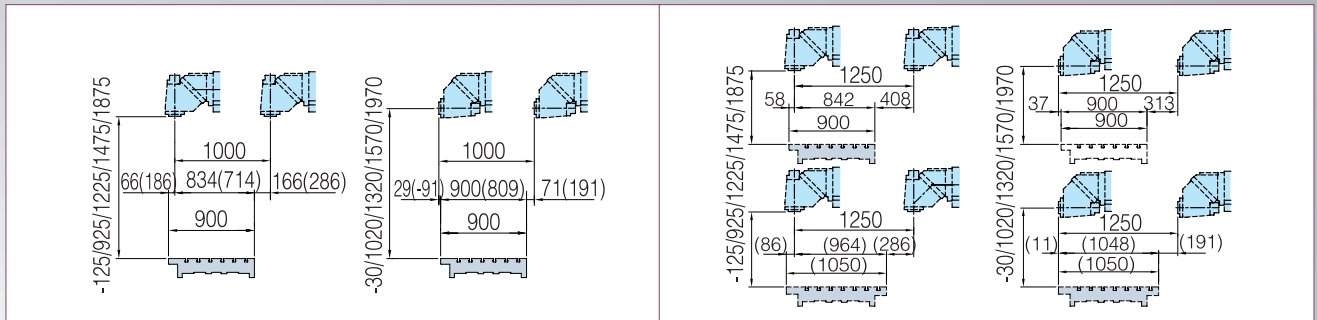


() : Option

A2 Head

Cross travel 1000mm

Cross travel 1250mm

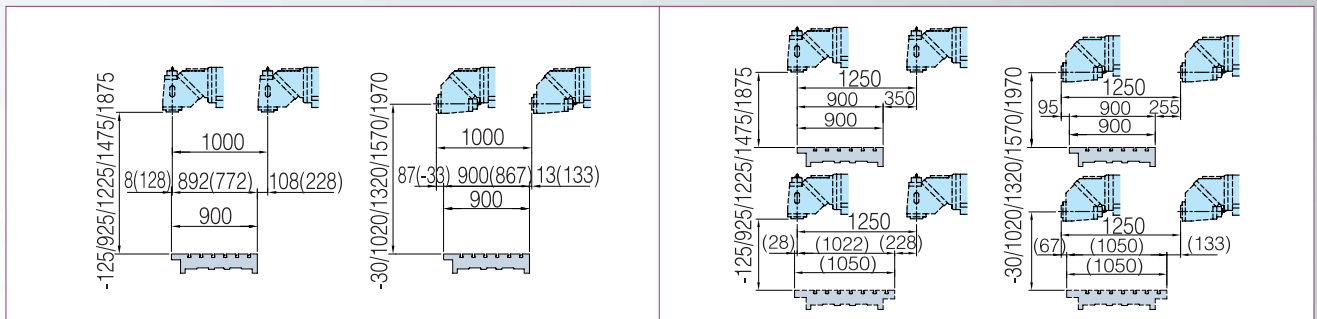


() : Option

A4 Head

Cross travel 1000mm

Cross travel 1250mm



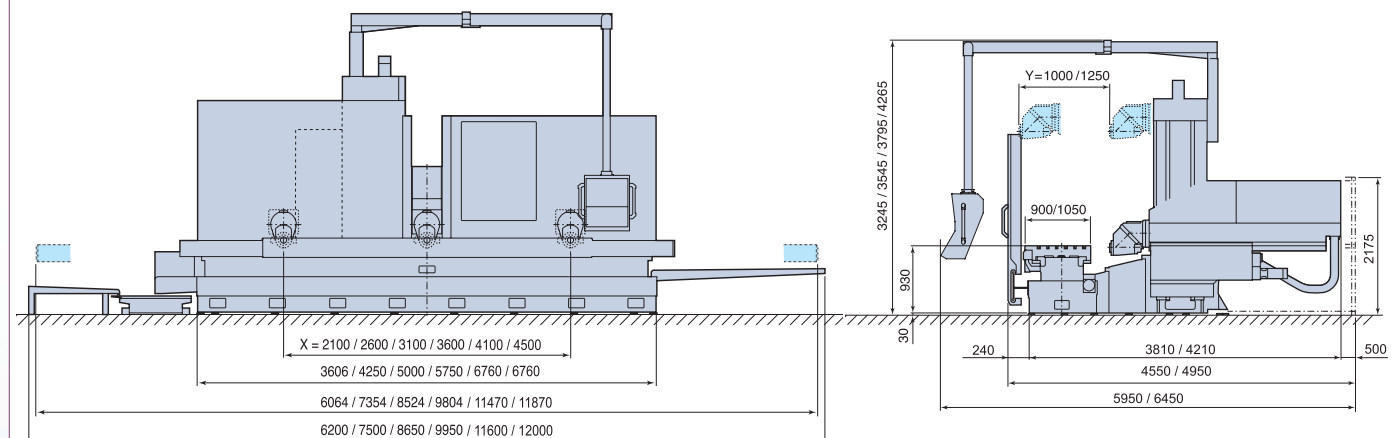
() : Option

Machine Dimension

X : 2100 / 2600 / 3100 / 3600 / 4100 / 4500 / 5000mm

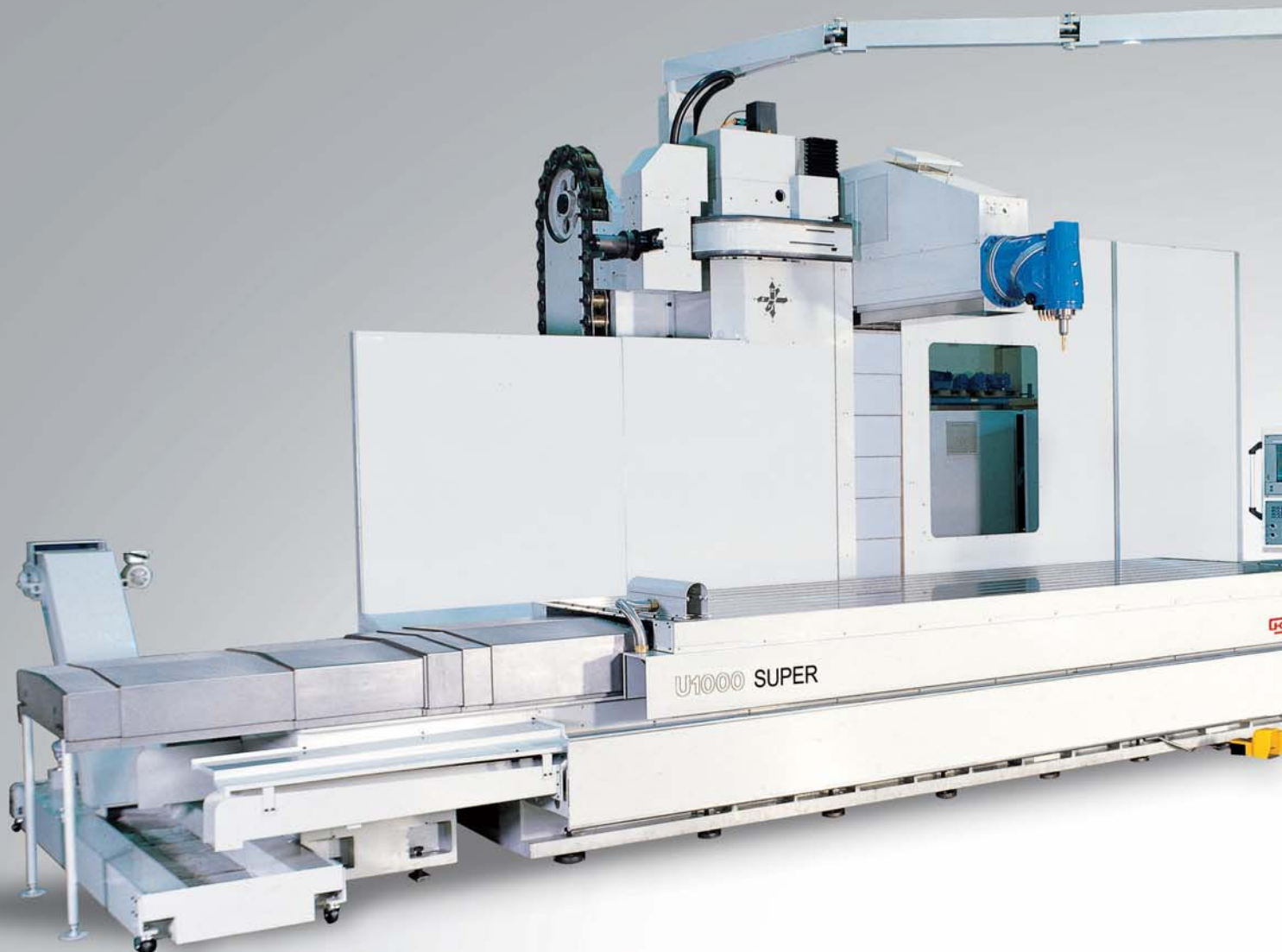
Y : 1000 / 1250mm

Z : 1050 / 1350 / 1600 / 2000mm



U1000 SUPER

CNC Bed Type Milling Machine

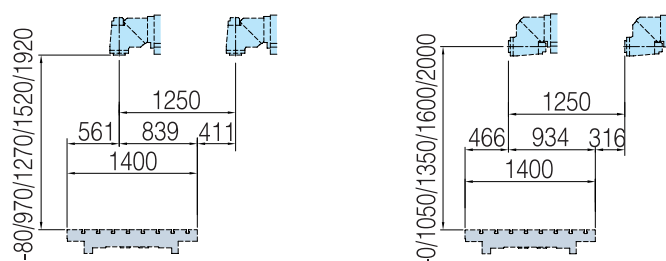


Machine Specification		U1000 SUPER
TABLE	Surface	4500 / 5000 × 1400mm
	T-slots	9 × 22mm
	Distance between T-slots	160mm
	Max. permissible load	13000kg
TRAVEL	Longitudinal travel	4100 / 4500 / 5000mm
	Cross travel	1250mm
	Vertical travel	1050 / 1350 / 1600 / 2000mm
FEED	Axis feedrate	5000mm/min
	Rapid feedrate	10000mm/min
SPINDLE	Taper	50
	Speed	4000rpm
		2 steps : 0~1000, 1001~4000
MOTOR	Spindle drive motor	28 / 38kw : Rated speed 1000rpm
	Feed drive motor	X : 70, Y : 27, Z : 27Nm
WEIGHT	Approx. machine net weight	33 ~ 40ton

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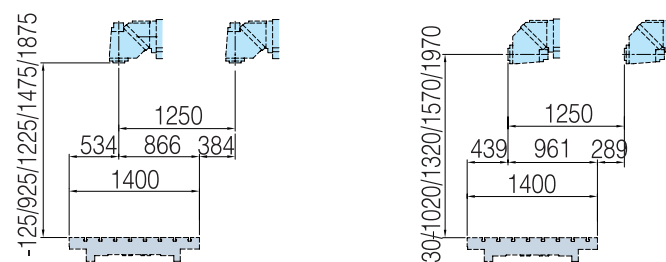
M Head

Cross travel 1250mm



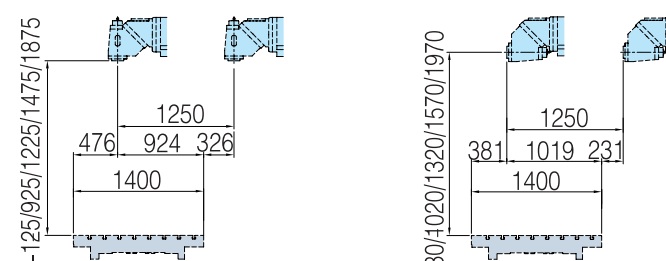
A2 Head

Cross travel 1250mm



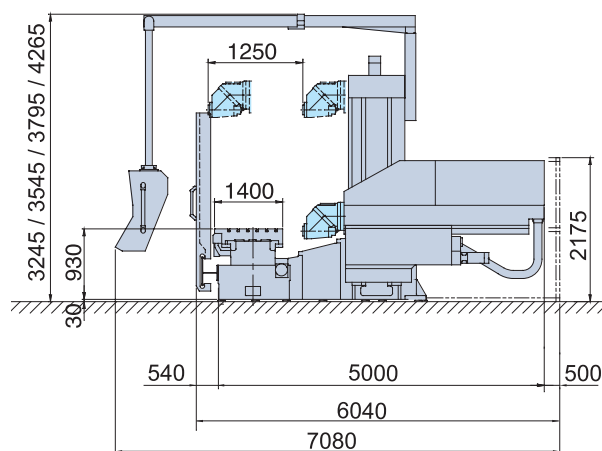
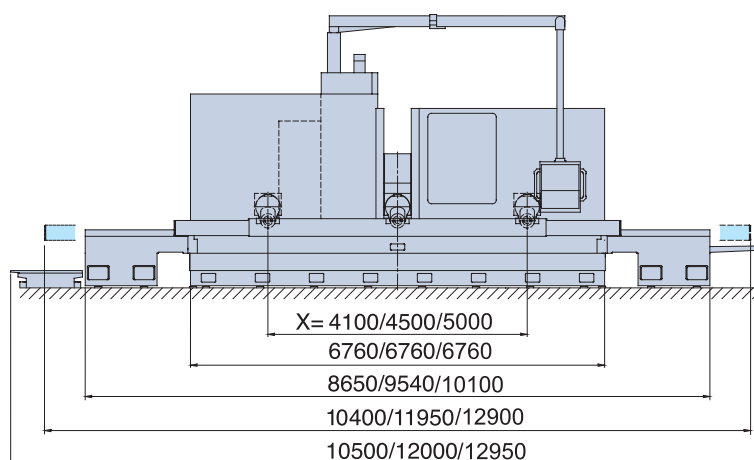
A4 Head

Cross travel 1250mm



Machine Dimension

X : 4100 / 4500 / 5000mm
Y : 1250mm
Z : 1050 / 1350 / 1600 / 2000mm



RT1000

CNC Bed Type Milling Machine with Rotary Table

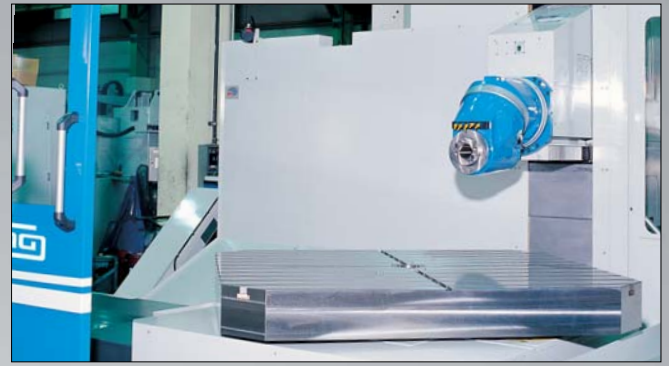
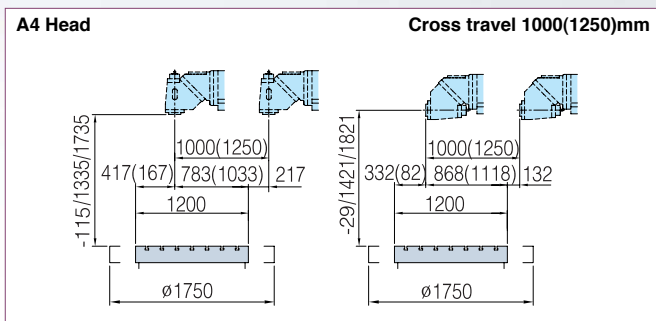
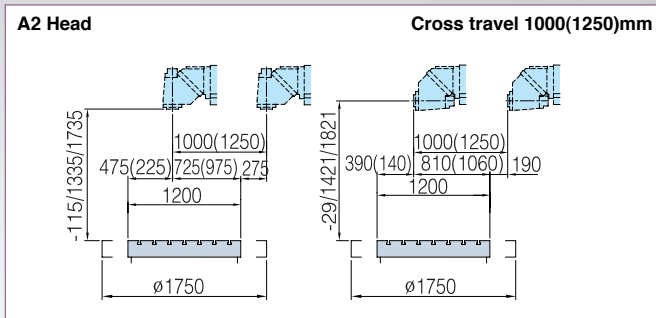


Machine Specification		RT1000	
ROTARY TABLE	Surface	1400 × 1200mm	1600 × 1400mm
	T-slots	9 × 22mm	11 × 22mm
	Distance between T-slots	125mm	
	Max. permissible load	8000kg	
	Table auto indexing, Continuous	0.001°	
TRAVEL	Longitudinal travel	2500mm	3000mm
	Cross travel	1000mm	1250mm
	Vertical travel	1450, 1850mm	1450, 1850mm
FEED	Axis feedrate	5000mm/min	
	Rapid feedrate	X, Y : 12000, Z : 10000mm/min, B : 6rpm	
SPINDLE	Taper	50	
	Speed	4000rpm	
MOTOR	Spindle drive motor	28 / 38kw : Rated speed 1000rpm	
	Feed drive motor	X : 50, Y : 27, Z : 27, B : 50Nm	X : 70, Y : 27, Z : 27, B : 70Nm
WEIGHT	Approx. machine net weight	25 ~ 30ton	32 ~ 36ton

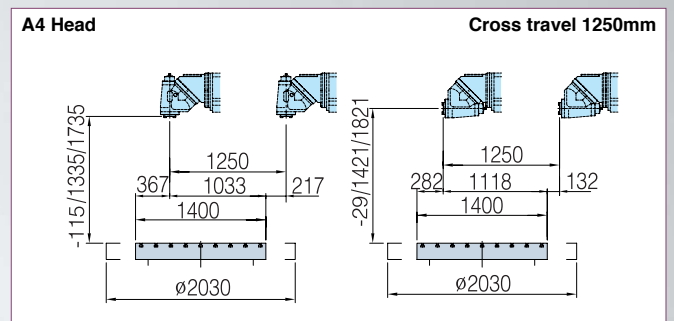
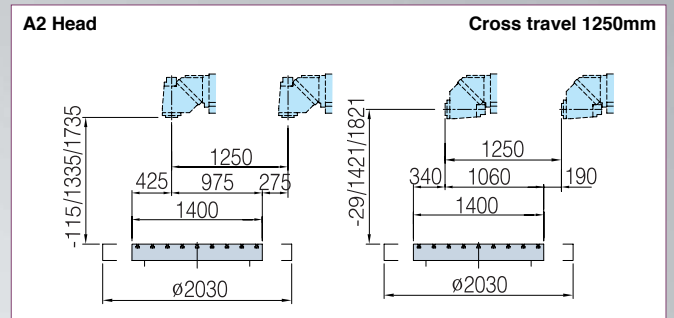
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1400 × 1200mm



1600 × 1400mm



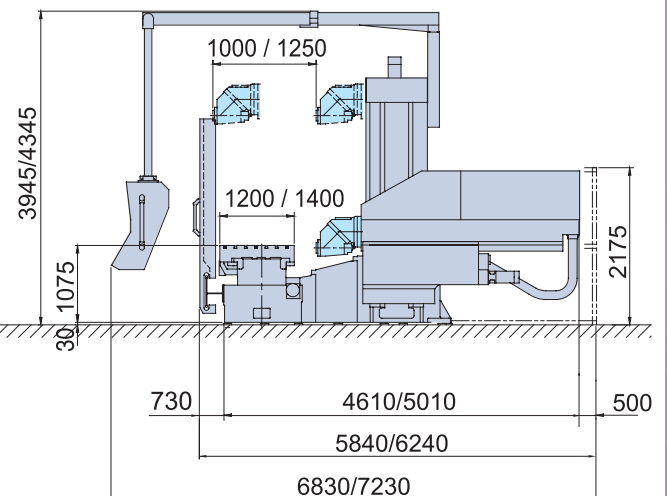
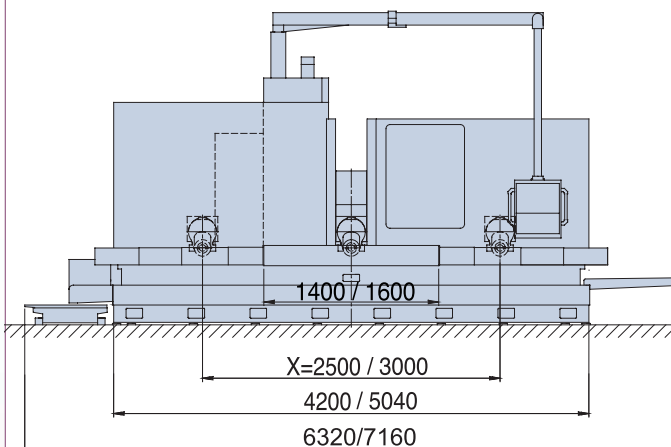
Machine Dimension

TABLE : 1400 × 1200 / 1600 × 1400mm

X : 2500 / 3000mm

Y : 1000 / 1250mm

Z : 1450/1850 / 1450/1850mm



Quality Machine

Total quality control always aiming for higher quality!

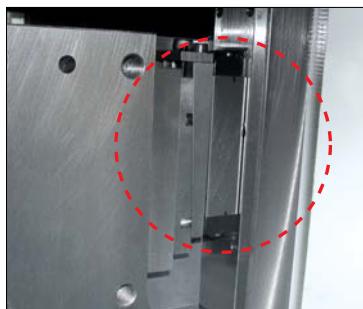
Hand Scrapping

The accuracy of U1000 is guaranteed by the craftsman's art of scraping measured in micron.



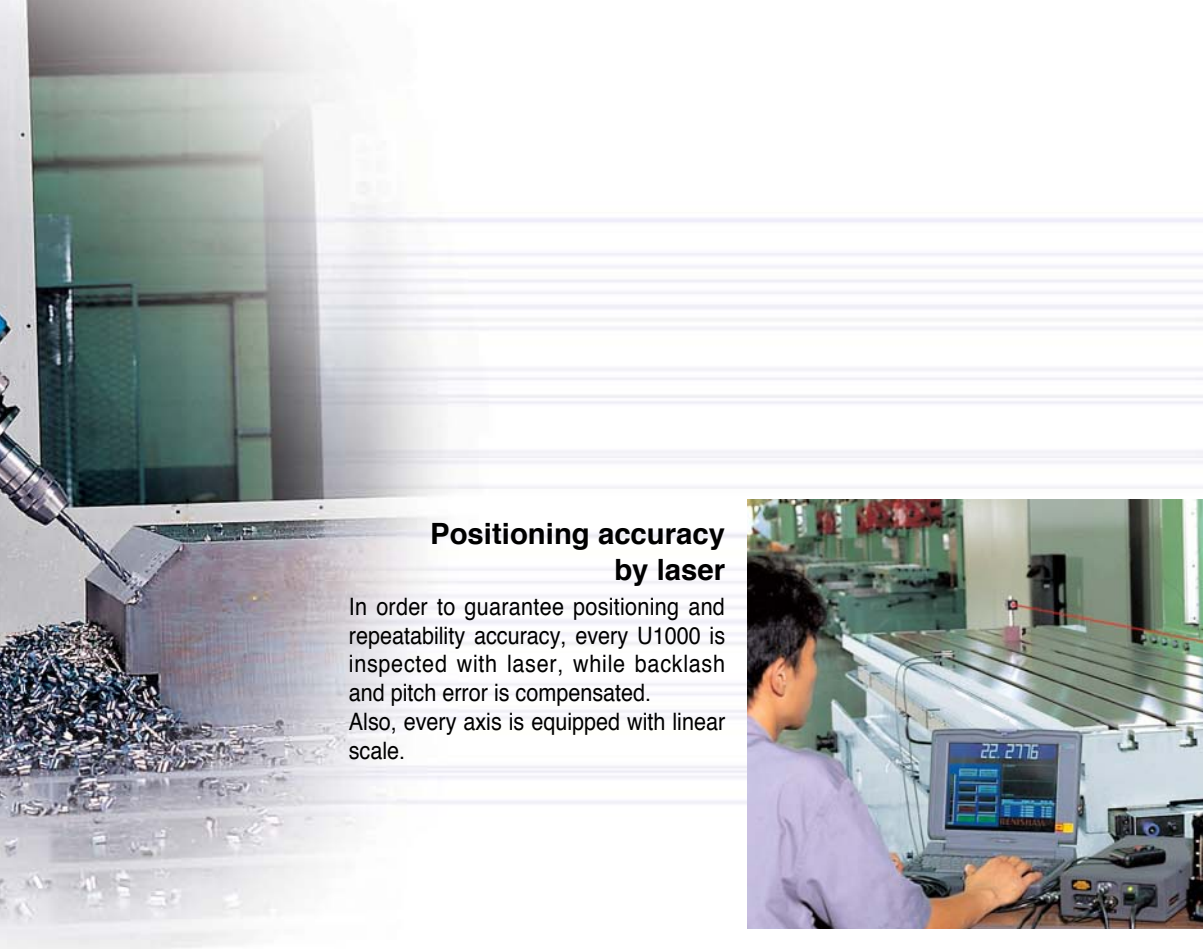
INA Roller shoes and INA Steel way : Only for Cross travel 1250mm

INA Roller shoes on the saddle and INA Steel way on the column guarantee the long life geometric accuracy.



Grey cast

Critical parts, such as base, column, saddle, table and head etc., are made of Grey cast iron.

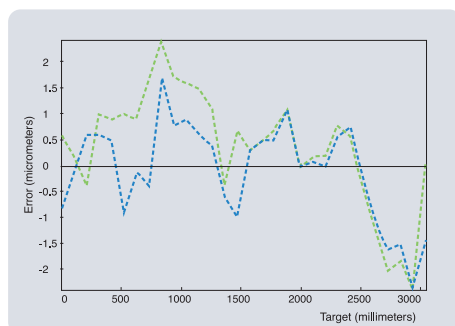


Positioning accuracy by laser

In order to guarantee positioning and repeatability accuracy, every U1000 is inspected with laser, while backlash and pitch error is compensated. Also, every axis is equipped with linear scale.

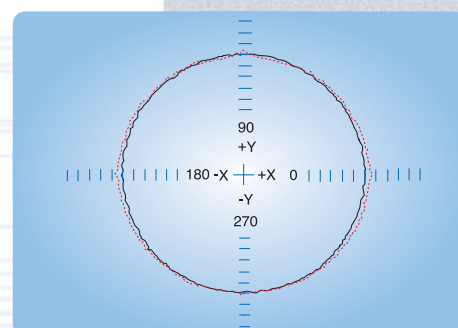


Linear scale



Roundness by ball bar test

In order to guarantee the machine geometry and roundness accuracy, every U1000 is inspected with Renishaw QC10 ball bar test. The following is the result from Kiheung's German customer, which was checked in customer's factory.



Basic Structure



Saddle

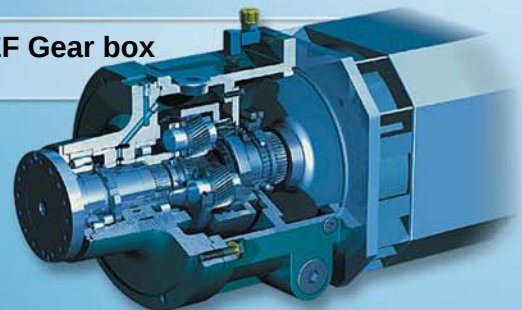


Column



Ram

ZF Gear box



Table



Bed



Optional

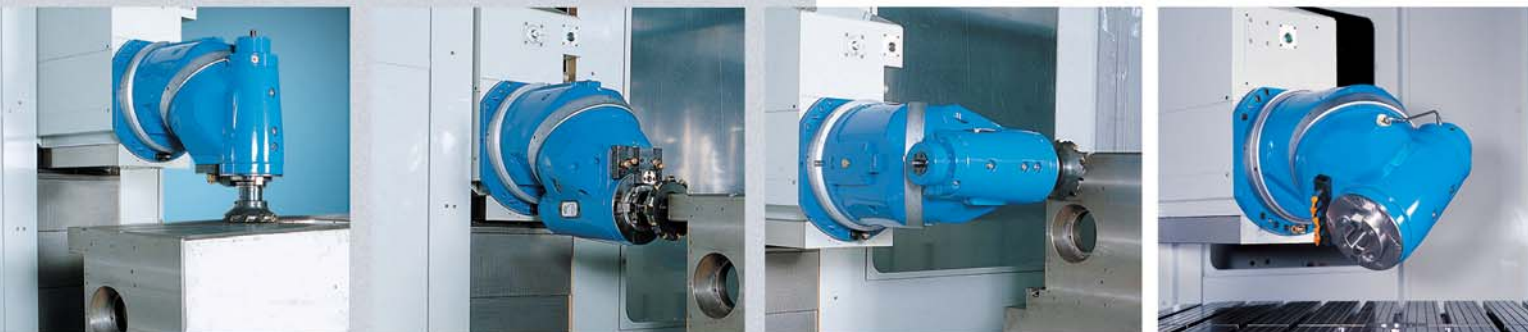


A2 Head (Automatic 2 Positioning Head)

Automatic 2 positioning (Vertical/ Horizontal) and manual positioning through 360° between upper head and ram gear box.

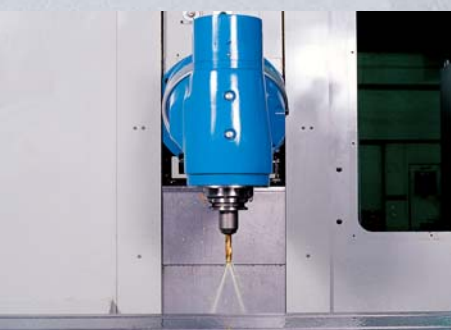
A4 Head (Automatic 144 × 144 Positioning Head)

Automatic 144 × 144 positioning through curvic coupling both upper head/ram gear box and lower head/upper head.



Direct Horizontal Spindle Head with 6,000 rpm : 2 step gear change

Sub. Angle Table
1300(H) × 1100 × 625mm



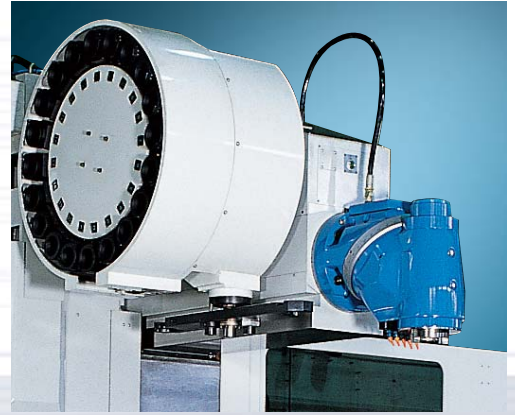
Coolant Through Spindle

Two tanks(Dirty tank 300 ℓ
+Clean tank 1,200 ℓ)
Automatic paper band filtering
system(10 μm)
16 bar coolant through spindle
8 bar coolant through nozzle



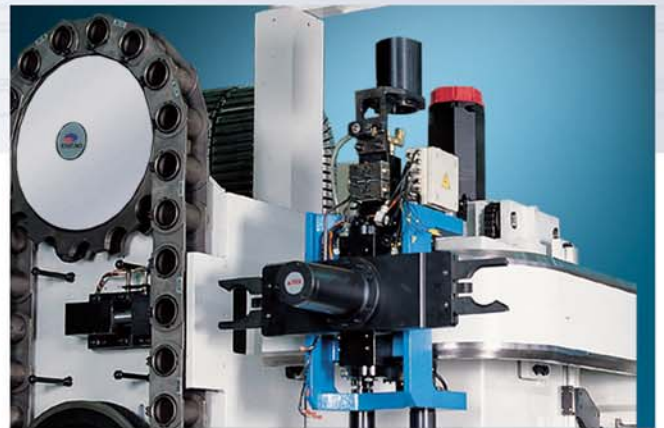
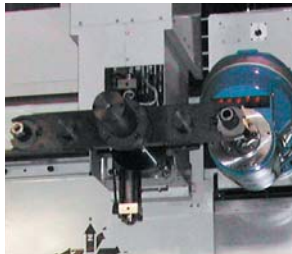
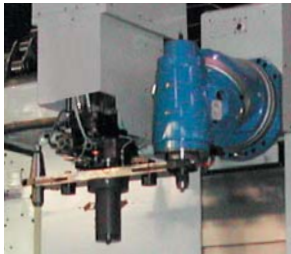
24 Tools Vertical ATC

Cam and cam follower 24 tools automatic tool changer driven by geared motor.



30, 40, 50, 60 Tools Horizontal ATC

Chain type 30, 40, 50, 60 tools magazine is driven by servo motor and positioning by Heidenhain rotary encoder. Carriage and gripper is operated by hydraulic system.



30, 40, 50, 60 Tools Vertical / Horizontal ATC

Vertical / Horizontal ATC reduces tool changing time about 30 seconds compared to Horizontal ATC.



Complete Enclosure

Chip Conveyor

Chip screw in front and in the rear of the bed removes chips automatically with push button or M function. Lift-up chip conveyor collects chips into chip reservoir and circulates coolant water automatically.



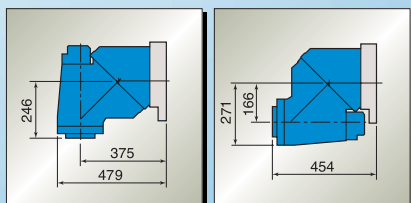
2 Chip Screw



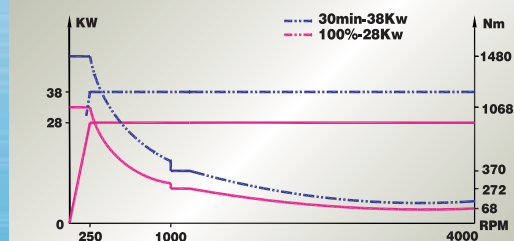
Lift up chip conveyor

Standard

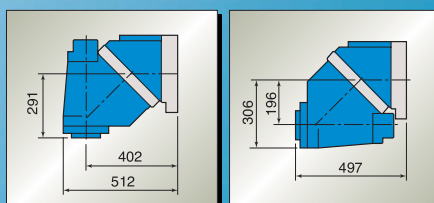
- **M Head.**
Manual positioning
Spindle nose DIN 2080 / DIN 69871



4000 rpm

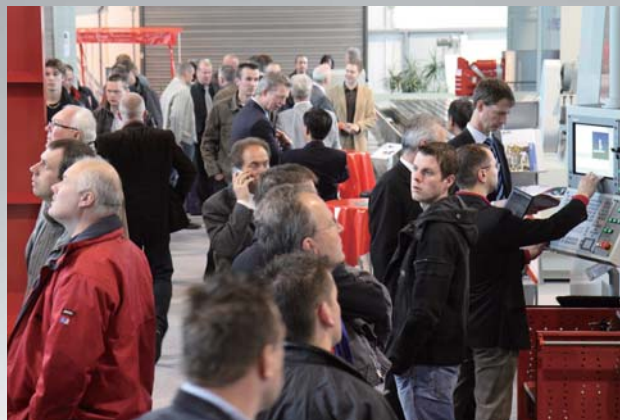


- **A2 Head**
Automatic 2 positioning (vertical, horizontal)
Spindle nose DIN 69871



	U1000	U1000 SUPER	RT1000
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	*	*	*
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*** : Optional**



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