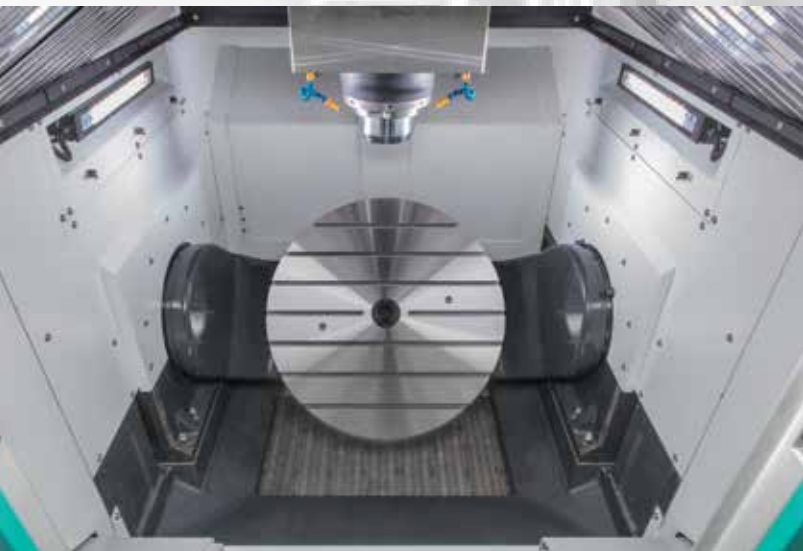




U800-5AX

5-Axis Gantry Type Machining Center

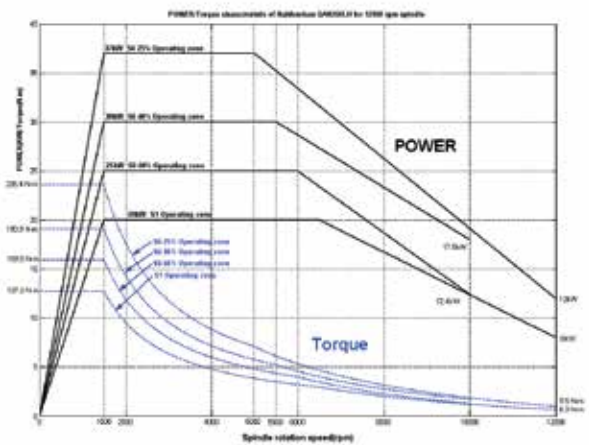


FEELER U800-5AX

High Speed Precision Machining, Unmatched Performance

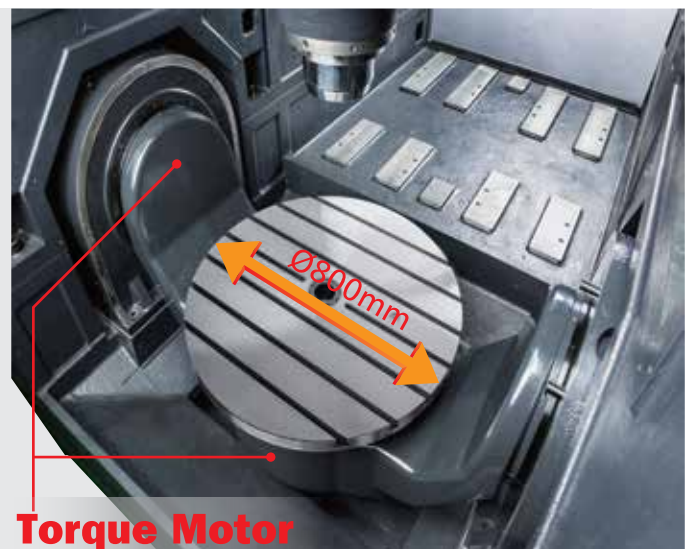
The Feeler 5-axis machining center is designed specifically for high precision machining and creating extra fine finish. Its gantry type structure together with U-shaped base and column brings the structural stability to a new level. The swiveling rotary table diameter is 800mm and capable of resisting heavy loads. This machine is equipped with a 12,000rpm direct-drive spindle that fully satisfies customers' expectation in high speed and high efficiency machining.

12,000 rpm Direct Drive Spindle Spindle Output And Torque



DDM Tilting Rotary Table (A/C axis)

A/C axis	A axis Tilting	C axis Rotary
Angle degree	-120° / +120°	360°
Max. Torque	2680 Nm	1230 Nm
Max. Speed	50rpm	100rpm
Table Load	1200 kgs	



Gantry Type Structure

Designed with a gantry type structure, the Feeler U800-5AX 5-axis machining center has the feature of spacious machining space, allowing large workpiece to be loaded and unloaded with ease. It is also convenient for operator to check the current machining condition at any time.

U-shaped Construction of Base and Column

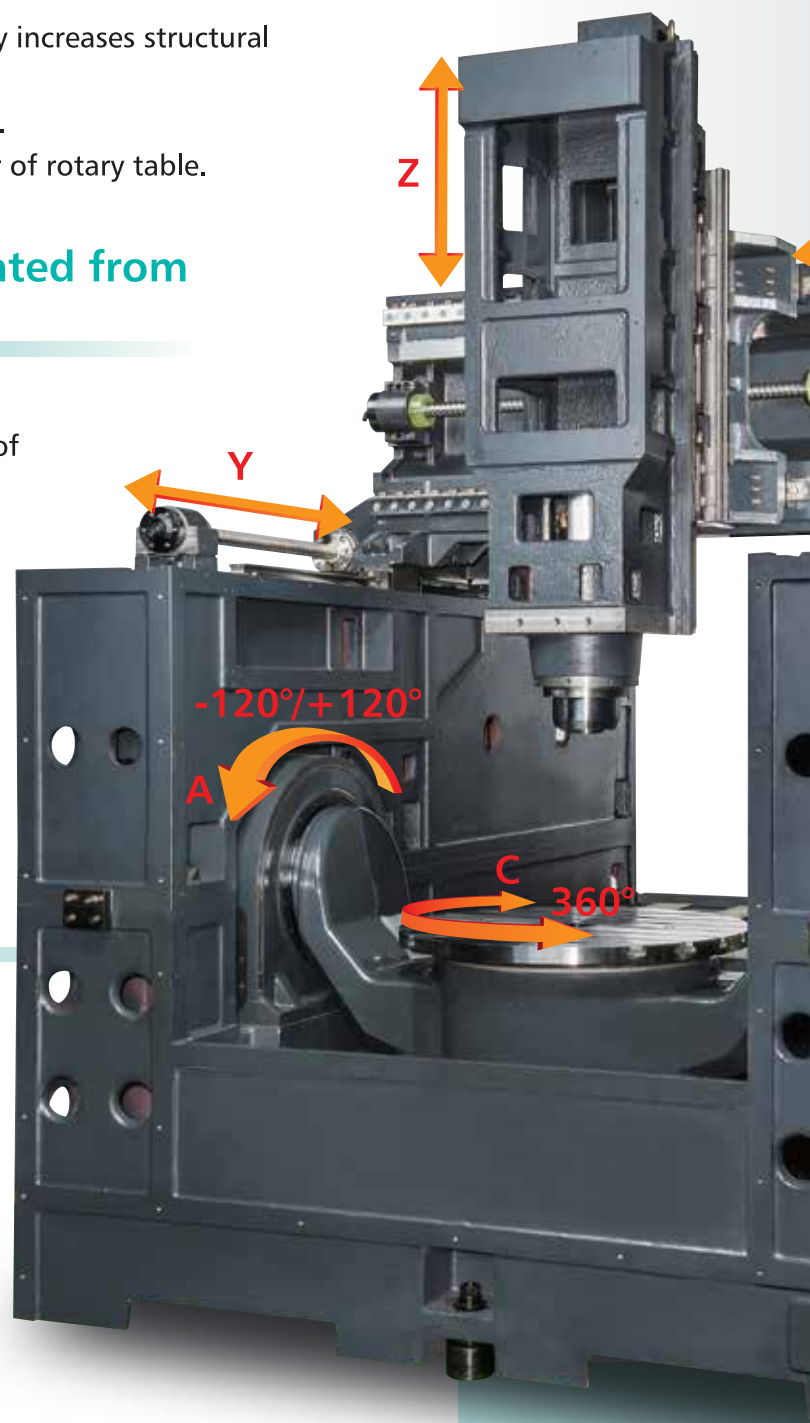
- The advanced U-Shape structure significantly increases structural rigidity and machining accuracy.
- X.Y.Z-axis rapid traverse rate reach 48m/min.
- Suitable for equipping with a large diameter of rotary table.

Three Axes Overlap and Separated from Two Rotary Axes

- This design avoids a distance between the machining point and the intersection point of two rotating axes.
- Easy to compensate for the errors of radius on rotating axes and movement on three linear axes to ensure the machine's stability and accuracy.

Separated Design for Three Axes Moving Area and Machining Area

- This design feature not only makes chip removal more convenient, but also enables better chip-prevention capability of the machine.



Efficient Chip Removal

- With the one-piece fabricated hopper-shaped outlet port, chips in the machine can be quickly removed.



5-Axis Linear Scales

- Standard only for Universal type 5 axis machine. It provides a closed-loop feedback control and achieves the highest positioning accuracy.



THK Roller Type Linear Guides

- Satisfy the requirements for high rigidity, high speed and high accuracy cutting.

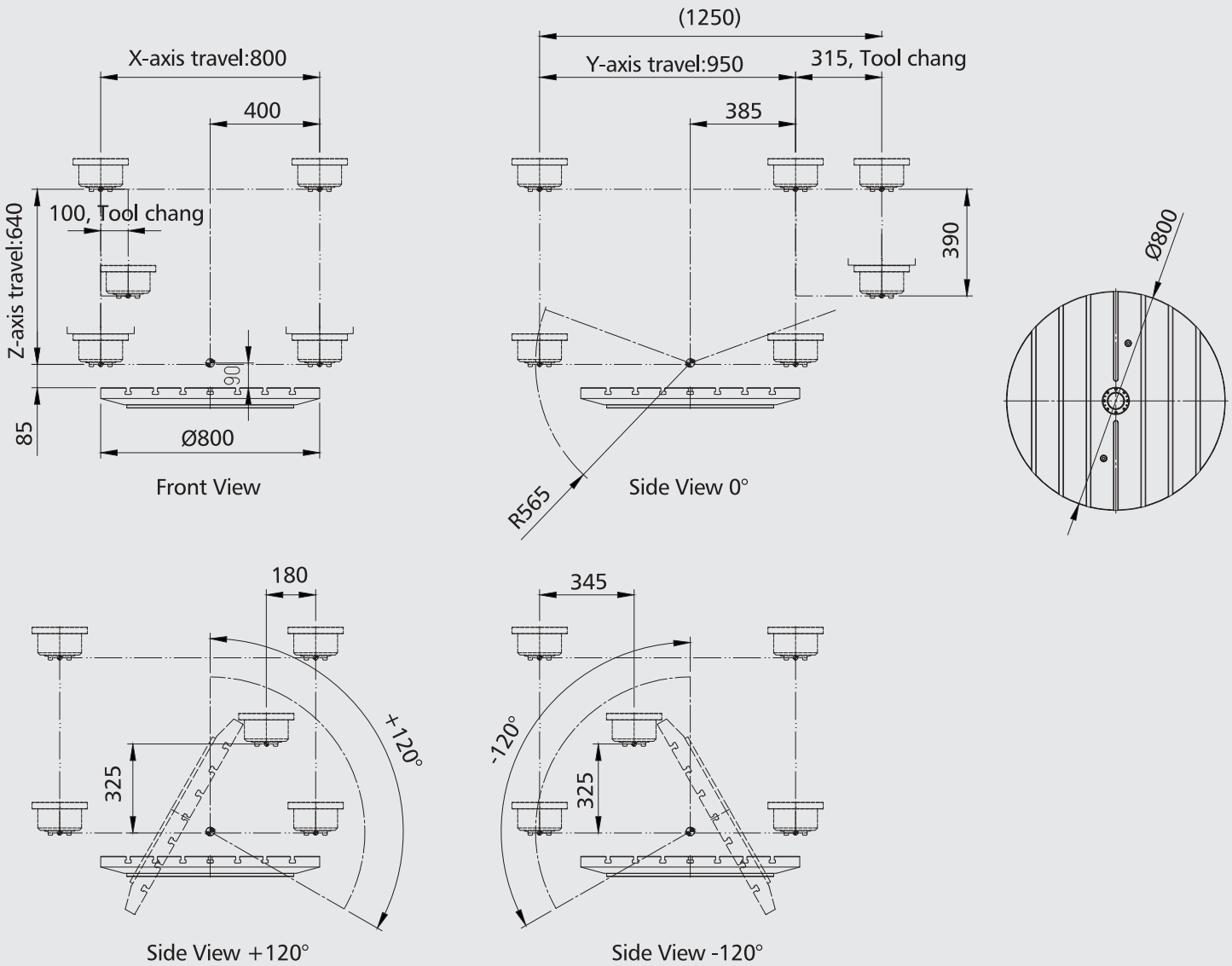
Horizontal Type Tool Magazine

32 Tools Standard 48/60 tools optional

- Driven by a servo motor, the automatic tool changer provides fast tool change with extremely smooth motions.
- Horizontal type construction permits uniform weight distribution of the entire magazine unit.
- Light weight with simplified structure design reduces trouble to a minimum and increases convenience in maintenance.



Range of 3-Axis Travel & A/C-Axis Travel



Standard Accessories

- 3 axes pretensioned ball screws
- Automatic lubrication system
- BT-40, 12,000rpm direct-drive spindle
- Spindle oil cooler
- Spindle air blast
- Coolant ring & nozzles
- Spindle air sealing device
- 32 tools horizontal type magazine
- Heidenhain linear scales on 3 axes
- Linear scales on A/C axes
- Air condition for electrical cabinet
- Dust-proof device for electrical cabinet
- Hydraulic power unit
- Workpiece air blast device (M code controlled)
- Leveling bolt and pad
- Coolant gun
- Working light
- 3-color warning light

Optional Accessories

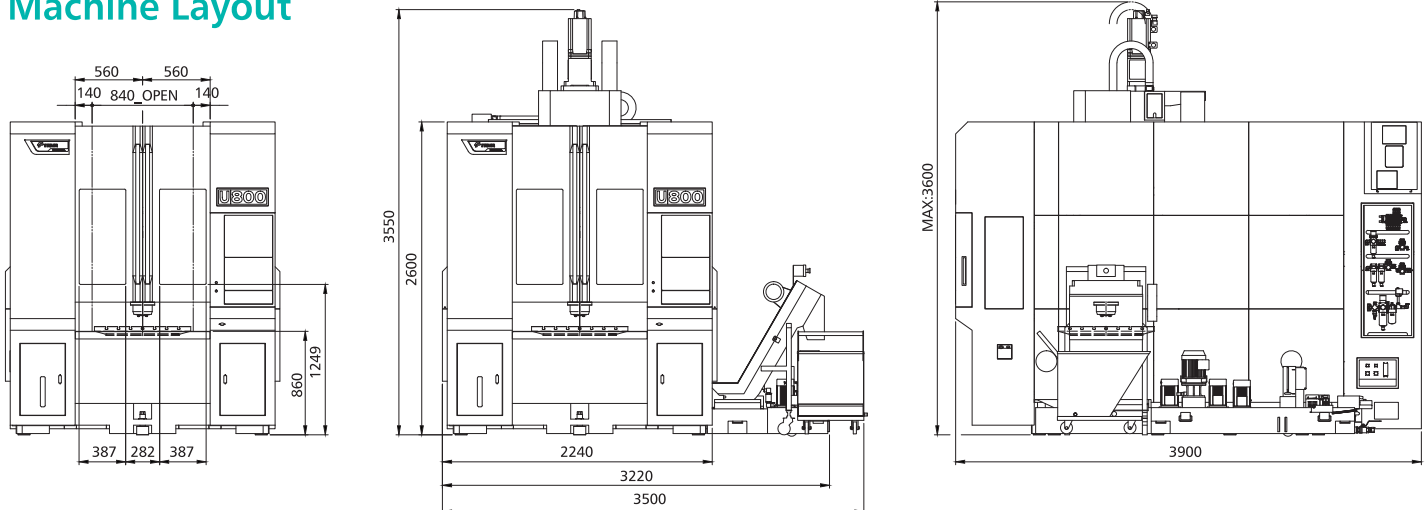
- 15,000rpm direct drive spindle
- 18,000/20,000rpm built-in type (IBAG) spindle
- Coolant through spindle & filter system (30/50/70 bar)
- 48/60/64/96/120 tools horizontal type magazine
- Hsk-a63 tooling system
- Right or left side chip conveyor + bucket
- Chip flushing device
- High pressure pump
- Workpiece measurement device
- Tool length measurement device
- Top roof
- Mist collector
- Jig/fixture clamping interface
- 8 M-code function
- Auto door
- Calibration ball
- Kinematics software
- Dynamic collision monitor
- Ce modification
- Transformer

SPECIFICATIONS

MODEL		Unit	U800
A/C- axes Tilting Rotary Table			DDM
TRAVEL			
X-axis travel		mm	800
Y-axis travel		mm	935
Z-axis travel		mm	640
A-axis rotation angle		degree	+120° ~ -120°
C-axis rotation angle		degree	360°
Spindle nose to table surface		mm	85± 5 ~ 640± 5
Table surface to floor		mm	900 ± 5
TABLE			
Table dimensions		mm	Ø800
Spindle hole diameter		mm	Ø60H7
T-slots		mm	7 × 14
Max. table load		kg	1200
Working Torque	A-axis (Tilting Axis)	N-m	2680 N-m
	C-axis (Rotary Axis)		1230 N-m
Max. rotation speed	A-axis (Tilting Axis)	rpm	50
	C-axis (Rotary Axis)	rpm	100
Min. indexing unit		degree	± 5"
SPINDLE			
Spindle speed		rpm	Direct-drive type 12000rpm (Built-in type 18000rpm)
Spindle taper		-	7/24 Taper NO.40 (BT-40)
Spindle power		Kw	20/37
FEED RATE			
X-axis rapid traverse		m/min	48
Y-axis rapid traverse		m/min	48
Z-axis rapid traverse		m/min	48
ATC			
Tool changing time (Tool-to-Tool)		sec	7 / 60Hz (2.5 / 60Hz)
Tool changer		-	Ylock type
No. of Tools		T	32 (OPT 48、60)(*2)
Pull stud		-	P-40T (45°)
Max. tool weight		Kg	7
Max. tool length		mm	300
Max. tool diameter		mm	Ø75
Max. tool diameter (No adjacent tool)		mm	Ø125
FLOOR SPACE		mm	3220(W)×3900(D)
MACHINE WEIGHT		kg	18000
MAX. MACHINE HEIGHT		mm	3600
POWER CAPACITY		KVA	90
AIR SOURCE		bar	6-8

■ Specifications are subject to change without prior notice.

Machine Layout



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