UB-660

5-Axis Vertical Machining Center

TRAVEL		
X AXIS TRAVEL	mm	1250
Y AXIS TRAVEL	mm	700
Z AXIS TRAVEL (V/H)	mm	820(V) / 950(H)
B ROTATION ANGLE	deg	-110 / +110
C ROTATION ANGLE	deg	360
TABLE		
SPINDLE NOSE TO TABLE CENTER	mm	920
TABLE DIMENSIONS	mm	700*1450 (Ø660)
MAX.LOADING WEIGHT	kg	1000
SPINDLE		
SPINDLE SPEED(Built-in spindle)	rpm	12000 **(Built-in)**
SPINDLE NOSE		HSK-A63
SPINDLE POWER(S1/S6_25%)	kw	29.5 / 37
SPINDLE TORQUE(S1/S6_25%)	Nm	70.4 / 88.3
FEEDRATE		
X / Y / Z RAPID TRAVERSE	m/min	50
CUTTING FEEDRATE	m/min	20
B AXIS ROTATION SPEED	rpm	50
C AXIS ROTATION SPEED	rpm	85
AUTOMATIC TOOL CHANGER		
NO. OF TOOLS	pcs	40
PULL STUD		P-40T(45°)
MAX.TOOL DIAMETER	mm	Ø76
MAX.TOOL DIAMETER(NO ADJACENT TOOL)	mm	Ø150
MAX.TOOL WEIGHT	kg	7
MAX.TOOL LENGTH	mm	350
TOOL CHANGING TIME	sec	5
FLOOR SPACE		
FLOOR SPACE (W×D×H)	mm	5070x3750x3865
(MACHINE WEIGHT)	kg	11000

FFG FAIR FRIEND GROUP

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ISO 9001
ISO 14001
CE

UB-660

5-Axis Vertical Machining Center

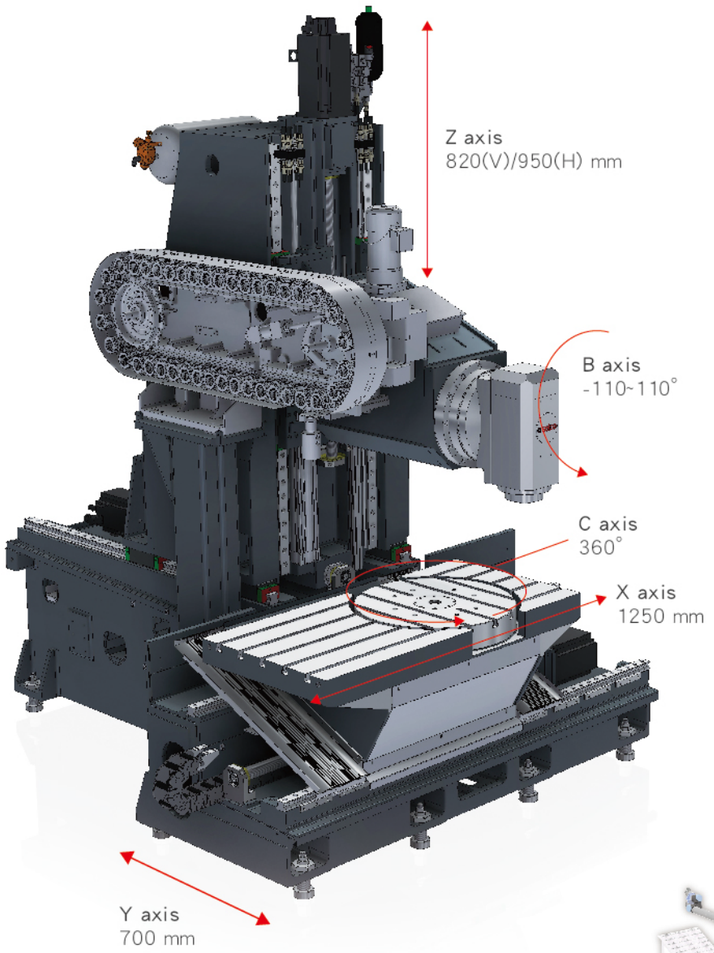
FFG

FEELER®

UB-660

High-Speed Precision Machining
Extraordinary Performance

FFG five-axis machining center machines are specially designed for high-speed, high-precision machining and finishing. The machine has high rigidity with high feed rate capability to ensure the excellent cutting quality. The UB-660 has the swing-head structure which reduces the machining interference area, as well as optimized structural configuration, including the box structure casting and cross column design, which greatly improves the rigidity and stability of the entire machine. Furthermore, the machine was developed with ODM projects of FFG European & American. Therefore, the machine consists of the high-tech capabilities and all the advantages from Taiwan and Europe technology.



Adopted with moving column structure to process large and heavy workpieces, with high precision and excellent dynamic performance.

X-axis stroke of 1250 mm, suitable for processing long and complex workpieces, with large processing stroke and small machining area.

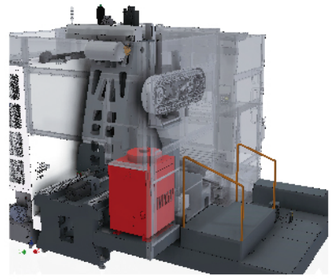
The composite table can save the fixture installation space. For complex workpiece machining, it can be completed rapidly with only clamping once, which improves the efficiency and saving the machining time.

UB 660 Automated Production Line

Machine Features

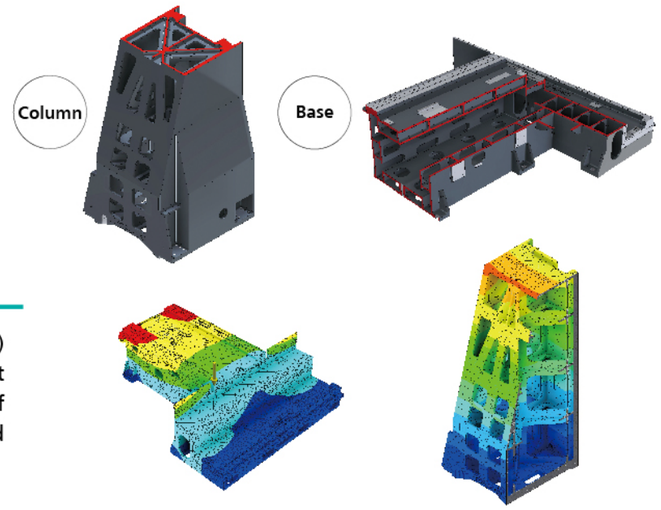
Spindle/Swing-head/Table Cooling system

The temperature cooling system uses an inverter liquid cooler, which provides the spindle/ swing-head/ table to maintain stable operation at the optimal temperature, which increases the lifetime of major components, and promotes the machine tool system to be more stable during machining. The dimension and precision are more accurate, which shows the features of high efficiency and precision machining.



High Rigidity Base and Column

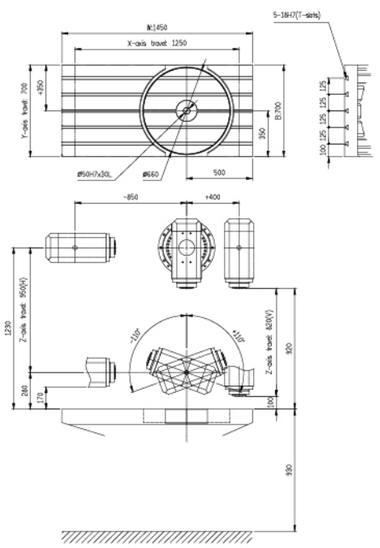
Vertical moving column structure: The m-shaped structure increases the bending resistance and strength of the column, the weight is supported by pneumatic cylinders, and the shape of the column is identical to a pyramid with a larger base to increase movement stability.
One-piece base structure: Optimized structure with excellent rigidity. The internal structure adopts with box structural design to greatly increase the supporting capability. The sand clear holes adopt with a circular shape to facilitate production and flow force improvement, and lastly, the table adopts with high and low rail design to increase rigidity.



Finite Element Method

Fair Friend utilizes Finite Element Method (FEM) software for rigidity and FEM analysis. The end reault is superior machines with optimum combination of structure, price/performance ratio, accuracy and reliability.

Max. Working Capacity



Floor Space