



TAKUMI

U Series



5-Axis Machining Center

| UVC600

U Series

The Takumi UVC600, 5-axis machining center, is designed for high precision finishing of medium and large size parts in markets such as dynamic die and mold, aerospace and automobile applications.

The solid one-piece bed, provides excellent support for UVC600. The cantilever table is robust embedded in the machine frame on the side, which not only enhances the rigidity of the machine, but creates more space in the machine.

UVC600 provides highly efficient and productive processing for all kinds of complicated applications by 5-axis simultaneous movement.



01 U Series Spindle



| Spindle Power - Torque Curve

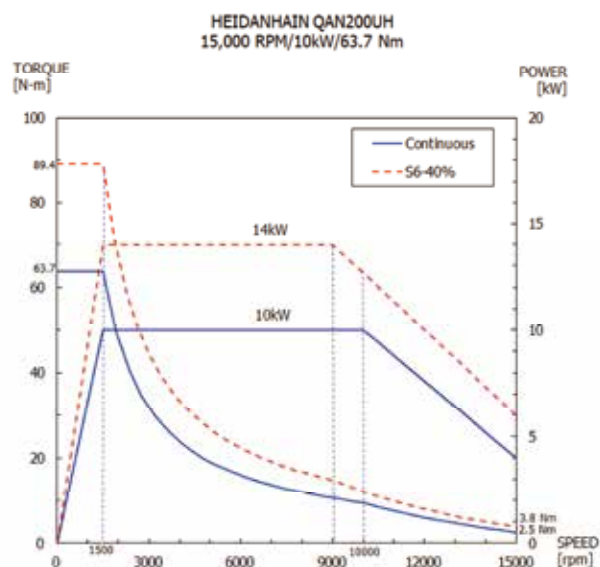
15,000rpm Direct drive spindle (Standard)

10/14

kW Power (Cont./S6-40%)

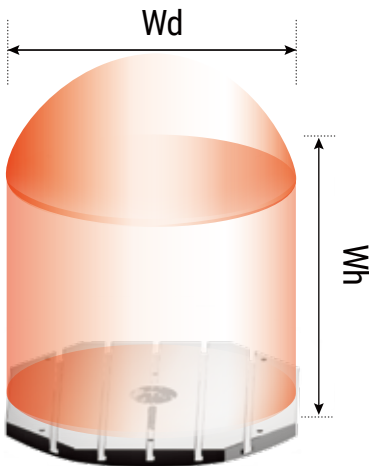
63.7/89.4

N.m Torque (Cont./S6-40%)



High Performance DDM Cantilever Table

The cantilever table uses integral direct drive motors (DDM), instead of gear drives, promoting quicker response, higher torque, outstanding position accuracy and lower service maintenance. The cantilever table is driven by direct drive motor (DDM), which motion can be delivered 100% from motor to provide high speed, high torque and zero backlash.



Maximum workpiece size (Wd x Wh)

UVC600	Φ 660 x 490mm
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Maximum workpiece weight

UVC600	350kg
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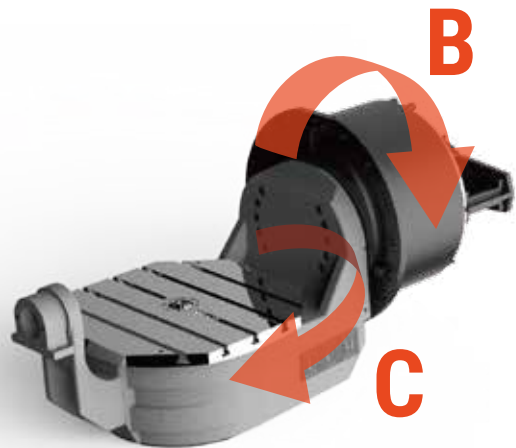
DDM Cantilever Table

B/C rotation range

-40° ~ +110°/360°

B/C rotation speed

50/100 rpm



02

U Series

DDM Cantilever Table

U Series User Convenience

03

UVC600 is built ergonomically for simple operation and uncomplicated maintenance.



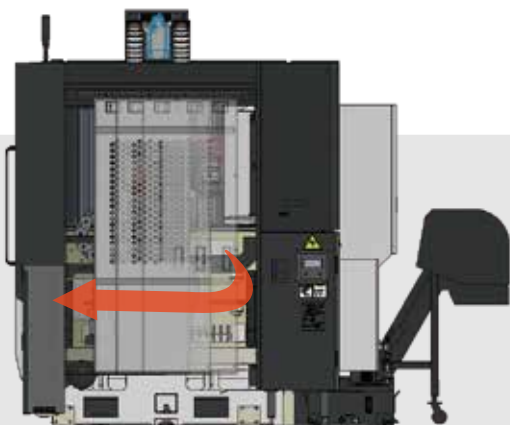
Two doors opening with wide operation panel

Two doors opening to the working area gives the operator impressive freedom and handling space. The operation panel can swivel 90 degree.



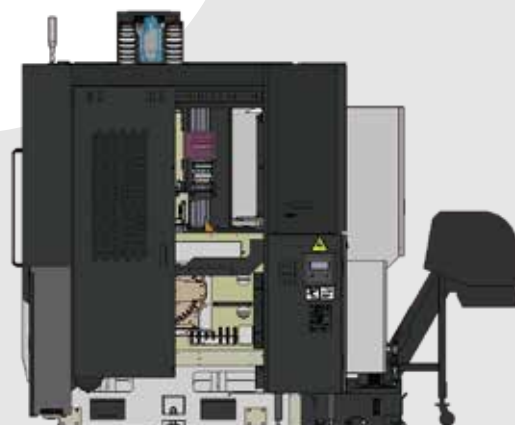
Ergonomic loading and unloading

Easy loading and unloading of heavy and large workpieces through the gap on the top cover by over-head crane.



Simple maintenance

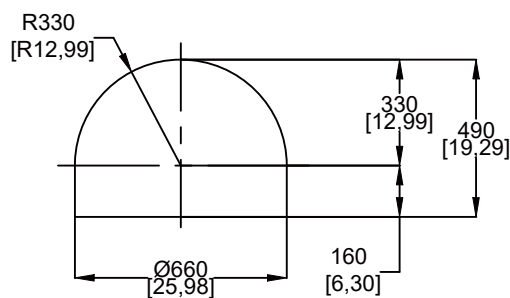
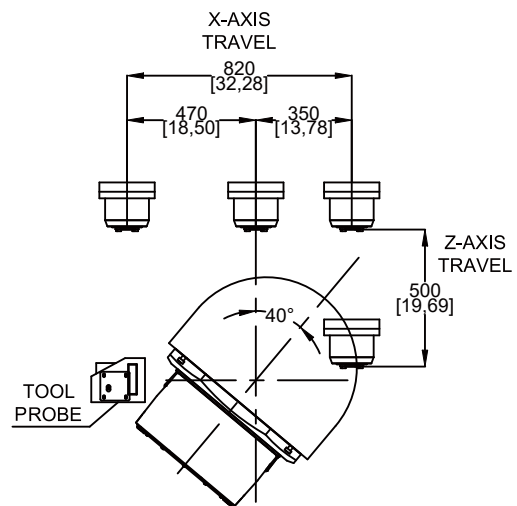
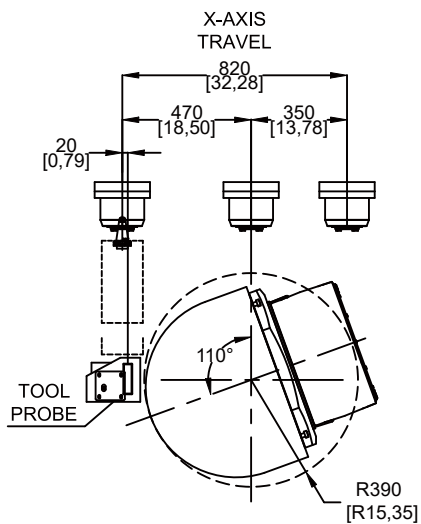
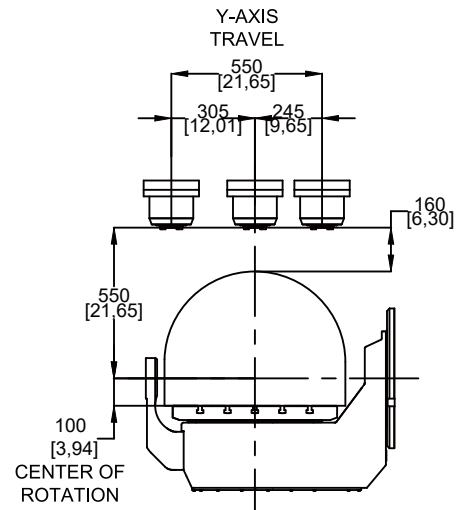
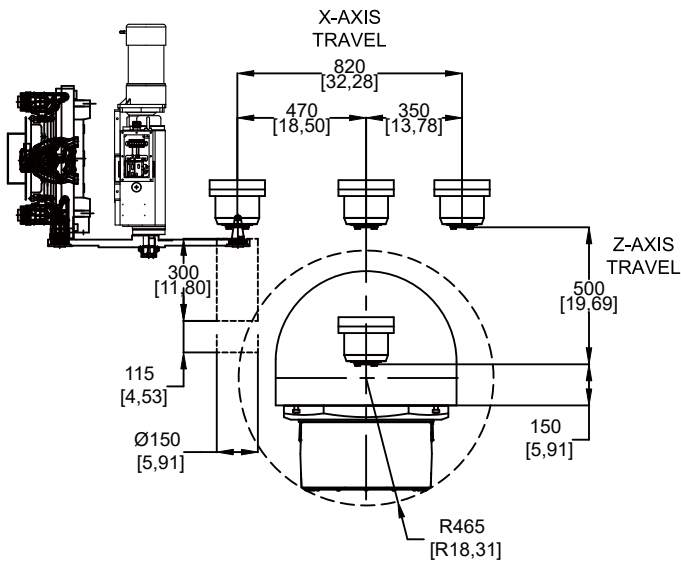
The sliding maintenance door design makes people to have easier access to the hydraulic system and the spindle clamping system.



Spindle and Table Travel Range

UVC600

Unit : mm



External Dimension

UVC600

Unit : mm

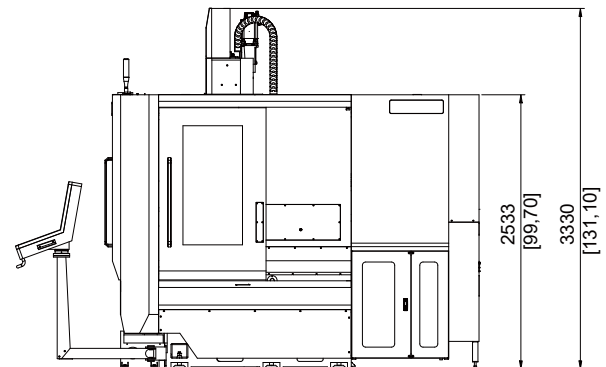
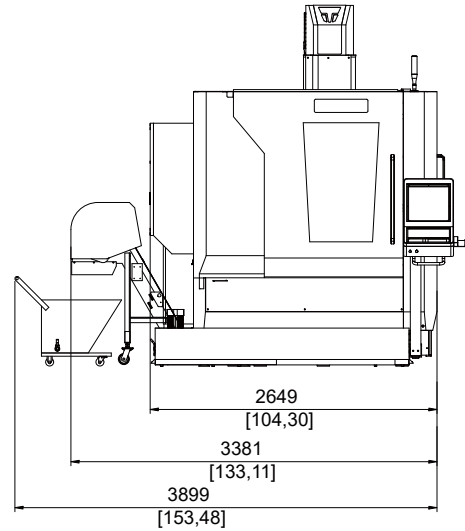
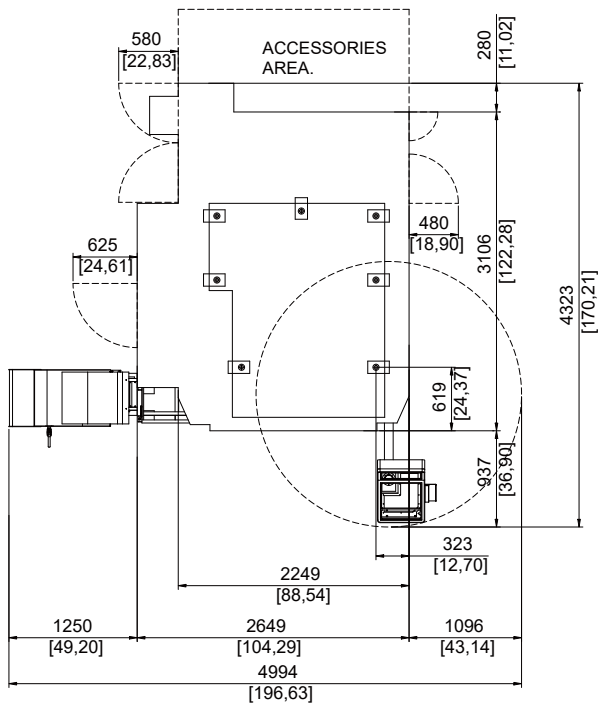
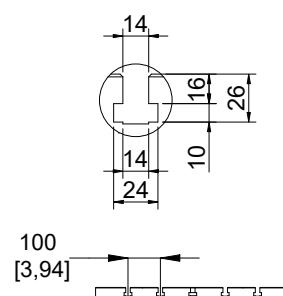
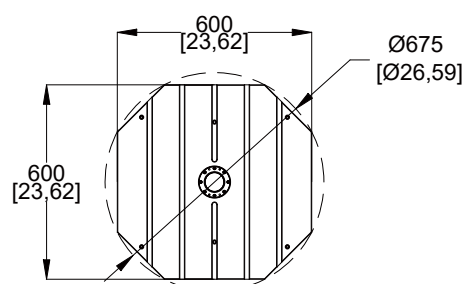


Table & T-Slot Dimension

UVC600

Unit : mm



Machine Specification

Travel

UVC600

X/Y/Z-axis	820 / 550 / 500mm
Distance from spindle nose to table	150-650mm

Table

Dimension	□1600mm
Max. load	350kg
T-slot	14 x 5

Spindle

Spindle type	Direct-drive
Spindle speed	15000rpm
Spindle motor power	10kW/14kW (Cont./S6-40%)
Spindle taper	BBT40

Feed

Rapid feed (X/Y/Z)	36/36/36m/min
Cutting feed	20000mm/min

C-Axis

Rotation range	360°
Positioning accuracy	±5"
Rotation speed	100rpm
Rotation torque (cont.)	390Nm
Rotation torque (max.)	700Nm
Clamping torque	630Nm

B-Axis

Rotation range	-40° ~ +110°
Positioning accuracy	±5"
Rotation speed	50rpm
Rotation torque (cont.)	1875Nm
Rotation torque (max.)	3460Nm
Clamping torque	1350Nm

ATC & Magazine

ATC type	Chain type
Number of tools	40pcs
Max. tool diameter (next pockets empty)	75/150mm
Max. tool length	300mm
Max. tool weight	7kg

Supply

Air pressure	6kgf/cm ²
Electric power supply	60kVA

Net Weight

Machine weight	10000kg
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Standard & Optional

Standard:

Heidenhain TNC7, 24"
 15,000rpm, BBT40, Direct drive spindle
 40T, chain type tool magazine
 Steel belt type chip conveyor
 Spindle cooling system
 Spindle oil air lubrication device
 Spindle coolant splash
 Cutting coolant system
 Air blast through spindle taper
 Full enclosed splash guard
 Linear scales (X/Y/Z)
 Centralized automatic lubrication system
 3-axis lubrication oil separated collection system
 Coolant tank & coolant flushing system
 3-Color signal light
 Working light
 Foundation pads & bolts kits
 Air conditioner for electric cabinet
 Rotary encoders for rotary axis
 Oil skimmer
 Dynamic collision monitoring
 Maintenance tools
 Manuals
 Washing gun & air gun
 Manual pulse generator
 RS232 and RJ45 interface
 CE certified

Optional:

60T, chain type tool magazine
 Scraper type chip conveyor
 Coolant through spindle (30bar/ 70bar)
 Cutting oil mist cooling device
 Oil mist collector device
 Workpiece measurement
 Tool measurement
 Transformer



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