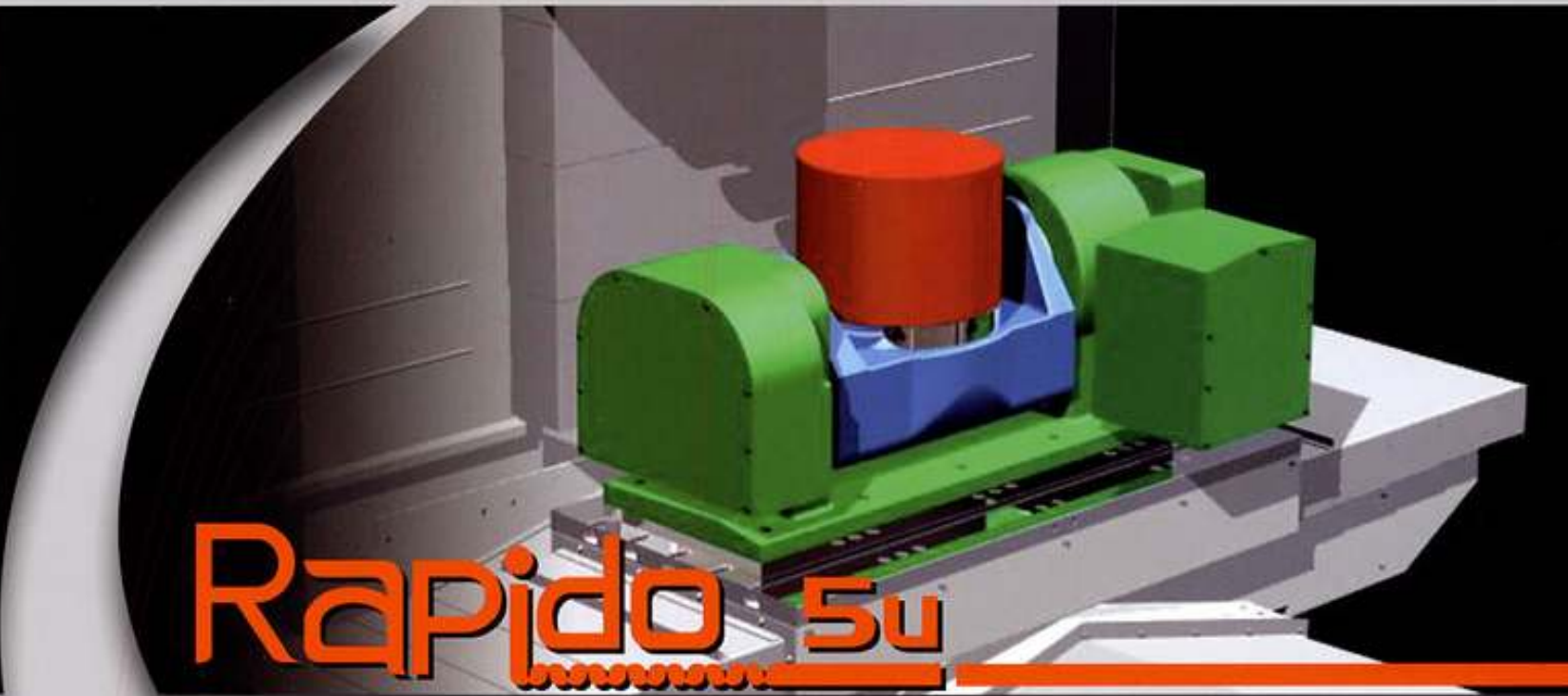


*Maximart*®

CE/EMC ISO 9001



**Rapido 5u**

**5-AXIS Machining Center**

# V-7H/5u

- HEIDENHAIN i-530smarTNC, 5-AXIS CNC/AC SERVO PACKAGE.
- FULLY ENCLOSED ELECTRIC-CABINET FITTED WITH AIR CONDITIONER, IS STANDARD FEATURE.
- DIN#40 TAPER, DIRECT-DRIVE ISO00RPM SPINDLE WITH COOLING SYSTEM.
- X/Y/Z TRAVEL 700 x 500 x 500MM.
- 3 AXES RAPID TRAVERSE 48METERS/Min. WITH INTERNALLY COOLED BALLSCREWS.
- HIGH COLUMN CONSTRUCTION FOR 4<sup>TH</sup> + 5<sup>TH</sup> AXIS MACHINING.
- HIGH PRECISION 4<sup>TH</sup> + 5<sup>TH</sup> CNC ROTARY TABLE ON WORKTABLE, IS STANDARD FEATURE.
- X/Y/Z AXES AND 4<sup>TH</sup> + 5<sup>TH</sup> AXES(RCN226) ABSOLUTE TYPE OPTICAL LINEAR SCALES ARE STANDARD FEATURE.
- 30 TOOLS ARM TYPE ATC SYSTEM WITH 1.5 SECONDS QUICK TOOL-CHANGE DEVICE.
- SCREW-DRIVE TYPE AUTO CHIP CONVEYOR(2 SIDES).
- 8 BARS HIGH PRESSURE COOLANT-THRU-SPINDLE.(OPTIONAL)
- CE/EMC CONFIRMITY MACHINE.(OPTIONAL)



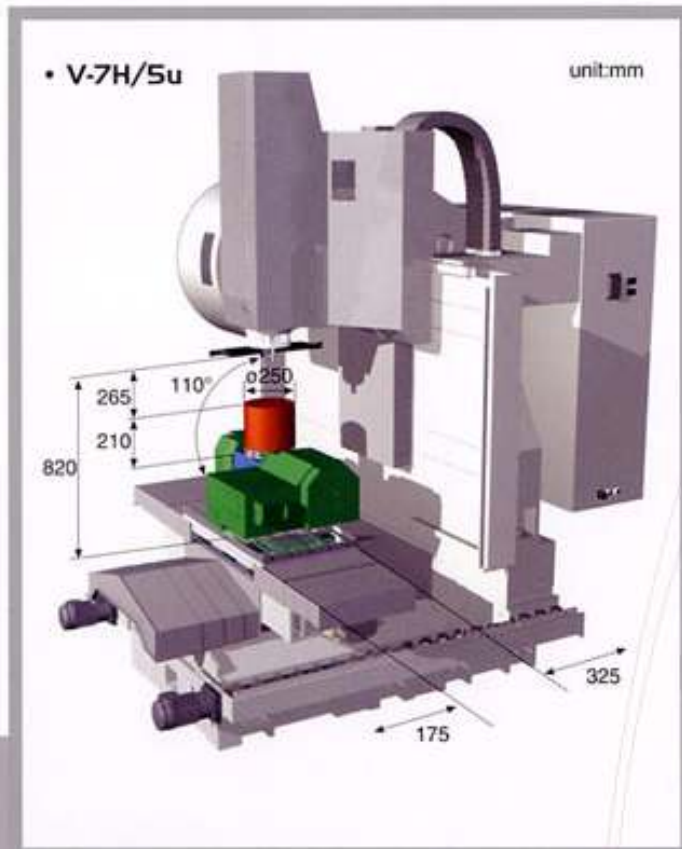
## Rapido 48

3 AXES RAPID TRAVERSE 48METER/Min. IS STANDARD FEATURE. EACH AXIS FITTED WITH "THK" SNS TYPE 45mm LINEAR MOTION GUIDEWAYS & OVERSIZED "OZ" TYPE LUBE-FREE GUIDE-BLOCKS. 3 AXES SUPER PRECISION & HIGH Dm-N VALUE BALLSCREWS ARE INTERNALLY COOLED, ALSO BALLSCREWS BEARING HOUSING & ASSEMBLY ACCURACY IS THE SAME LEVEL AS MACHINE SPINDLE.



# YOUR BEST CHOICE FOR MULTI-DIMENSIONAL / COMPLICATE COMPONENTS MACHINING.

A view of working capacity for V-7H/Su machine center.



HIGH COLUMN DESIGN, MORE SPACE FOR 4<sup>th</sup> + 5<sup>th</sup> AXIS MACHINING.

# V-11H/5u

- FANUC 3i-A5, 5-AXIS CNC/AC SERVO PACKAGE.
- FULLY ENCLOSED ELECTRIC-CABINET FITTED WITH AIR CONDITIONER, IS STANDARD FEATURE.
- BT#40 TAPER, DIRECT-DRIVE 15000RPM SPINDLE WITH COOLING SYSTEM.
- 3 AXES RAPID TRAVERSE 48METERS/Min. WITH INTERNALLY COOLED BALLSCREWS.
- X/Y/Z TRAVEL, 1100 x 610 x 610MM
- HIGH COLUMN CONSTRUCTION FOR 4<sup>TH</sup> + 5<sup>TH</sup> AXIS MACHINING.
- HIGH PRECISION 4<sup>TH</sup> + 5<sup>TH</sup> CNC ROTARY TABLE ON WORKTABLE, IS STANDARD FEATURE.
- X/Y/Z AXES AND 4<sup>TH</sup> + 5<sup>TH</sup> AXES(RCN226) ABSOLUTE TYPE OPTICAL LINEAR SCALES ARE STANDARD FEATURE.
- 30 TOOLS ARM TYPE ATC SYSTEM WITH 1.5 SECONDS QUICK TOOL-CHANGE DEVICE.
- SCREW-DRIVE TYPE AUTO CHIP CONVEYOR(2 SIDES).
- PREPARATION FOR 22BARS COOLANT-THRU-SPINDLE. (OPTIONAL)
- CE/EMC CONFIRMITY MACHINE.(OPTIONAL)

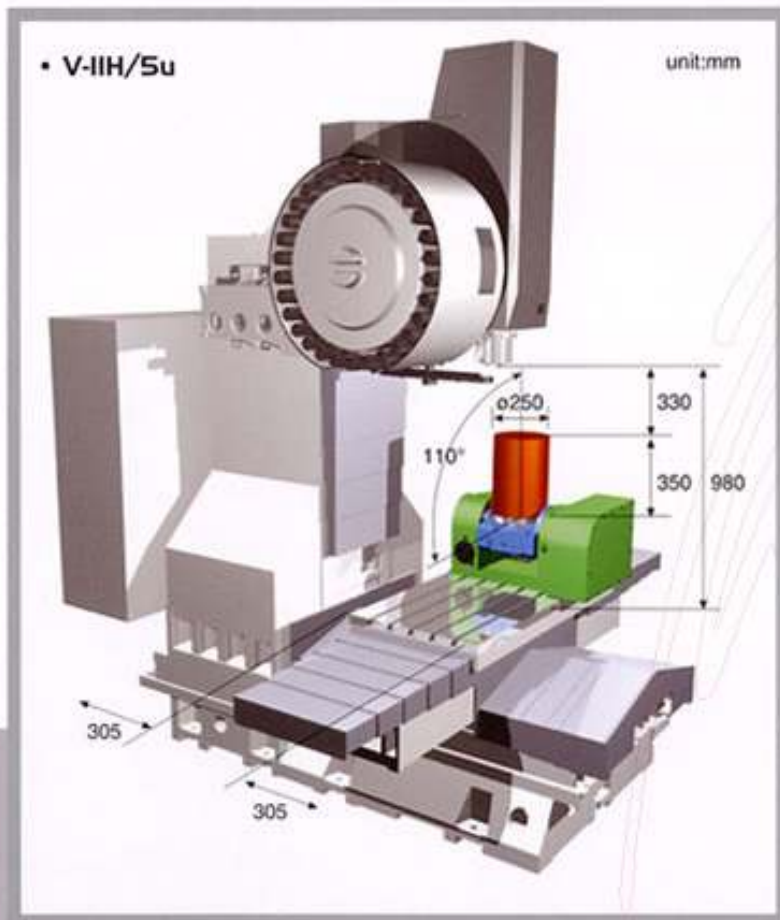


## ELECTRIC-CABINET AIR CONDITIONER IS STANDARD FEATURE

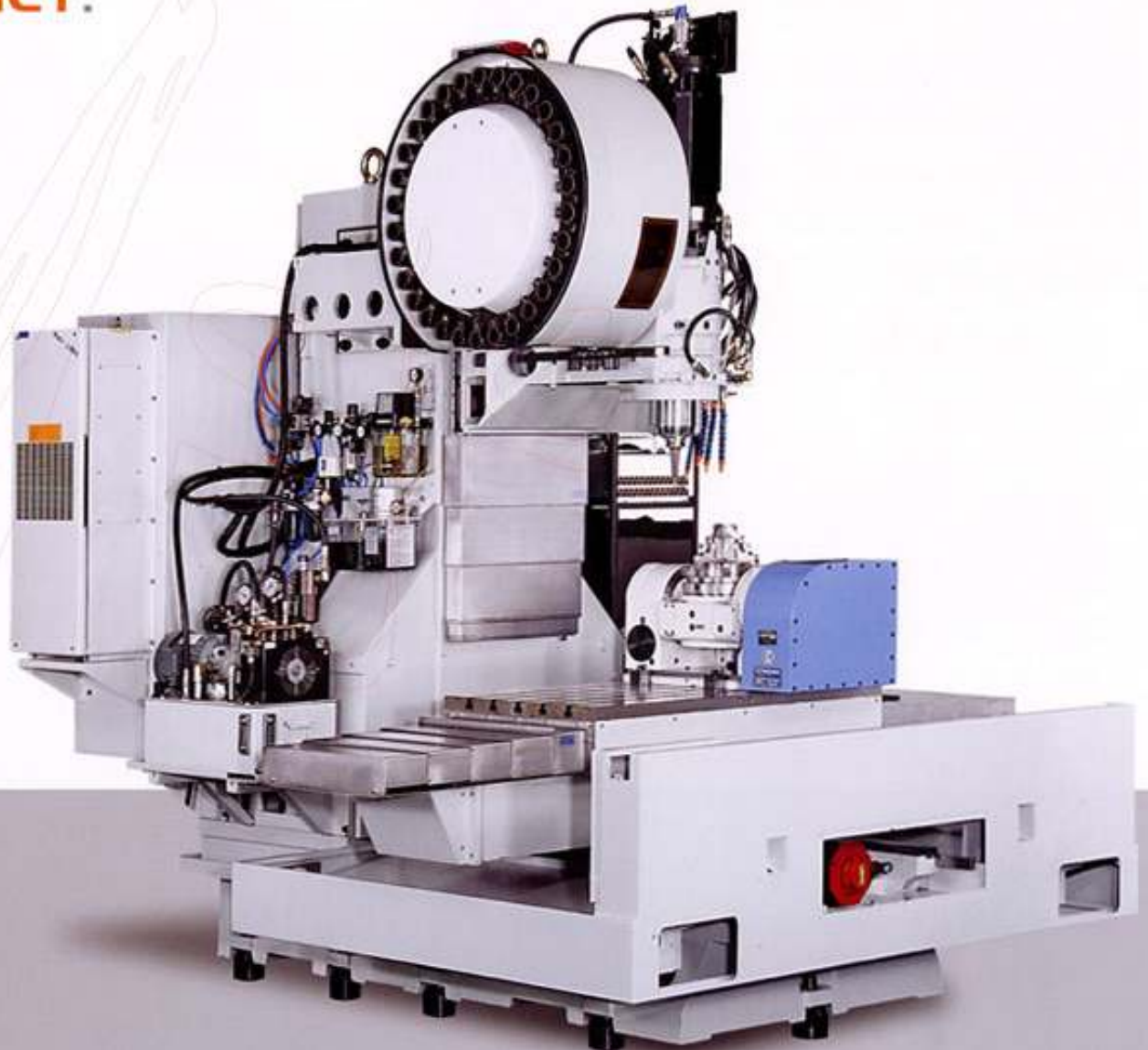
Fully enclosed electric cabinet and control panel cabinet were cooled by air conditioner. CNC system and electrical components are protected for longer servicing lifetime.



# VERSATILE **5-AXIS** VMC UPGRADES MACHINING **FLEXIBILITY AND EFFICIENCY.**



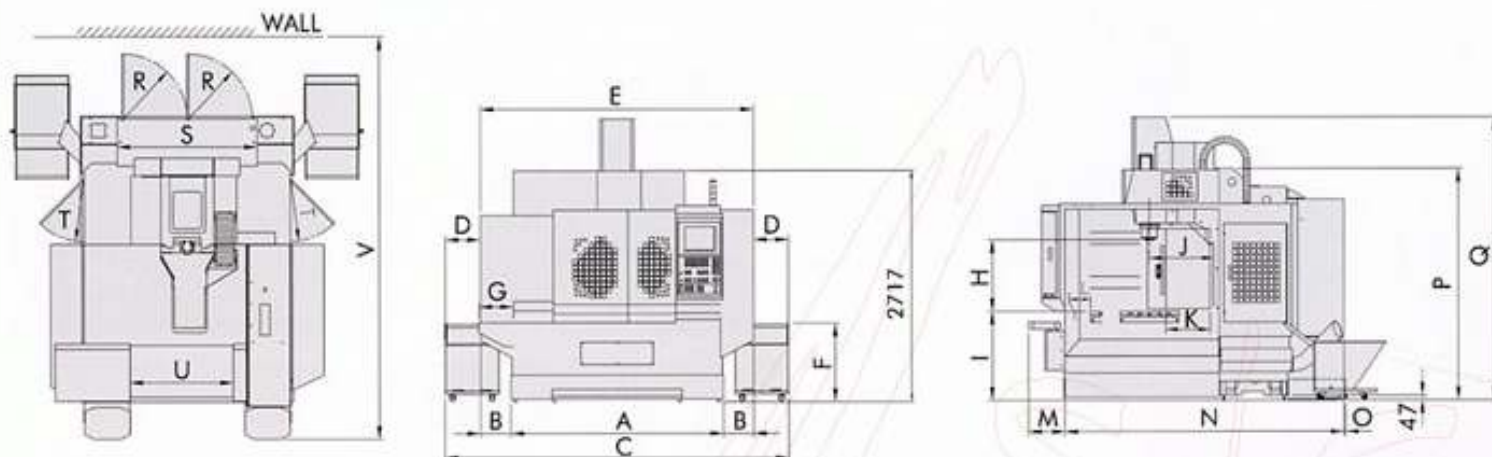
A view of working capacity for V-IIH/Su machine center.



# Machine Overall Dimensions

## V-11H/5u Screw Drive Type Chip Conveyor

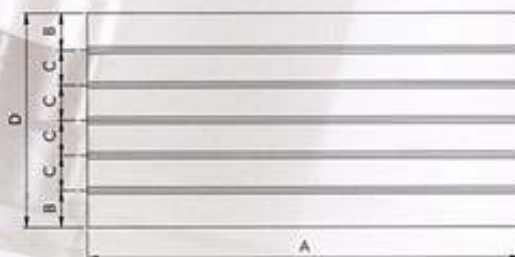
unit: mm



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
V-11H/5u	2200	315	3560	365	2830	805	335	130-740	907	668	465	200 810	380	2890	16	2610	2524 3134	R675	1450	R645	1090	4130

## Table Size

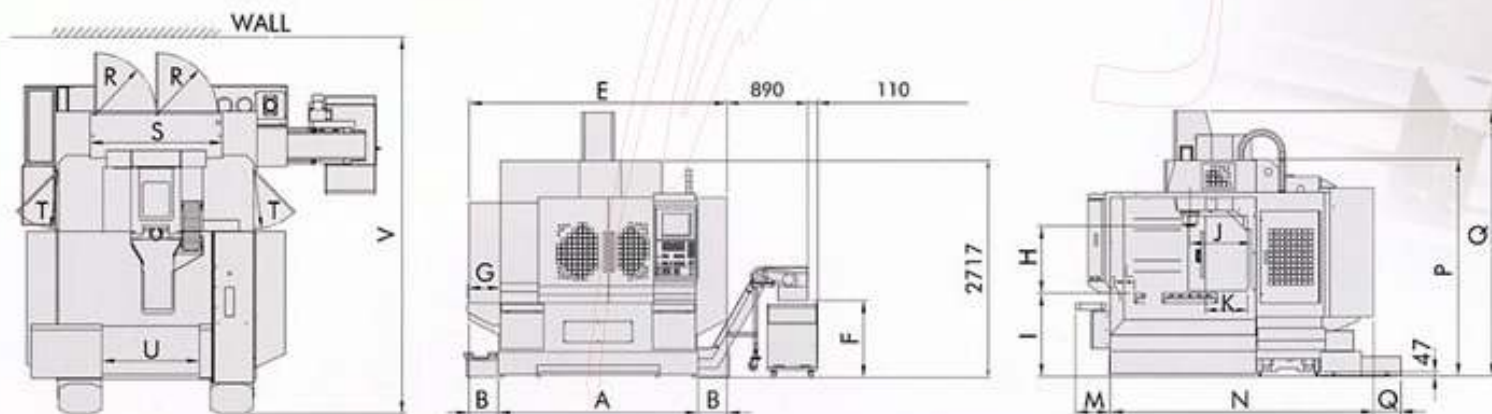
unit: mm



MODEL	A	B	C	D
V-11H/5u	1250	105	100	610

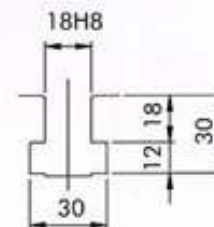
## V-11H/5u Screw Drive + Chain Type Chip Conveyor

unit: mm



MODEL	A	B	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
V-11H/5u	2200	315	2830	840	335	120-730	907	668	465	200 810	380	2890	295	2610	2524 3134	R675	1450	R645	1090	4130

## T-Slots









# RIGID AND MASSIVE CONSTRUCTION OPTIMIZE MACHINING STABILITY

Spindle motor power/torque delivers to cutting tool via direct positive drive.

High-speed high-performance cartridge spindle. Ceramic bearings are standard.



Inverter motor drive  
20 tools armless  
ATC system side-  
opening for  
loading tools, auto-  
closed magazine  
cover during  
machining.



Optional arm type 24  
or 30 tools ATC +  
quick tool-change  
mechanism, tool to  
tool 1.5 seconds.



"THK" LM guideways heavy  
duty type 45mm width, plus  
over-sized guide-blocks  
fitted on all 3 axes.  
Standard rapid traverse  
32M/min. 48M/min rapid  
traverse is optional.





# 5 AXES SIMULTANEOUSLY CONTROLLED FULL DIGITAL CNC/AC SERVO PACKAGE

The CNC controls are designed to meet human engineering theorem that provides maximum operational convenience.



A electronic handwheel unit (MPG) is provided to facilitate operation.



FANUC



SIEMENS



HEIDENHAIN



## WORKPIECE EXAMPLE





## Machine Specifications

ITEM/MODEL	V-7H/5u	V-11H/5u
<b>WORK TABLE</b>		
Table size	900mm x 500mm	1250mm x 610mm
T-slot	18mm x 5 x 100mm	18mm x 5 x 100mm
Table load capacity	700kgs	900kgs
<b>MOVEMENT &amp; RANGE</b>		
X.Y.Z axis travel	700mm x 500mm x 500mm	1100mm x 610mm x 610mm
Positioning accuracy	0.003mm/300mm	0.003mm/300mm
Repetition X.Y.Z. Axis	±0.003mm	±0.003mm
Spindle nose to work table	320-820mm	370-980mm
Spindle center to column	586mm	668mm
3 axes ballscrew	Ø45mmxP20mm/C3 (3 axes internally cooled ballscrew)   ø40mm/P16mm/C3 (3 axes internally cooled ballscrew)	
3 axes guideway	X/Y/Z : THK precision linear motion guide way SNS 45mm Qz type, lube-free.	
3 axes transmission	Direct drive	
<b>SPINDLE</b>		
Spindle taper	BT#40/ CAT#40/ DIN#40 (Optional HSK-63A)	
Spindle speed	60-15000rpm	
Spindle cooling unit	Standard	
Spindle transmission	Direct Drive	
Coolant thru spindle	Optional : 8 bars / 22 bars	
Spindle diameter	Ø70mm	
<b>FEEDS</b>		
Feed rate (mm/min)	1-12000 mm/min	
Rapid traverse (m/min)	X/Y/Z = 48M/min with internally cooled ballscrews)	
3 axes optical linear scale	absolute type 0.1µ resolution	
<b>A.T.C.</b>		
Tool storage capacity	Arm Type 30 Tools with 1.5 second Quick Tool-Change device	
Max. Tool Dia.	Ø76 mm	
Tool selection	Bi-direction random shortest path	
Max. Tool weight	7kgs/pc	
Max. Tool length	300 mm	
<b>GENERAL INFORMATION</b>		
Coolant motor	50Hz, GRUNDFOS MTH4-30/3 (0.73kw) or 60Hz MTH4 20/2 (0.87kw)	
Coolant thru spindle	50Hz, GRUNDFOS SPK2-23/23 (0.75kw) or 60Hz SPK2 15/15 (1.10kw)	
Coolant tank capacity	250 liters	
Chip conveyor motor	0.18kw x 2 + side transport motor 0.18kw x 1	
Machine weight	8000 kgs	8500 kgs

• Above specifications are subject to change without prior notice.

## STANDARD ACCESSORIES:

1. Full enclosure machine guard.
2. Full enclosure electric cabinet with air conditioner.
3. X/Y/Z/C/A total 5 axes optical linear scales, resolution 0.1µ.
4. High precision 4<sup>th</sup> & 5<sup>th</sup> CNC rotary table.
5. 30 tools arm type ATC system with 1.5 seconds quick tool change device.
6. Screw-drive type chip conveyor.
7. Spindle cooling system.
8. 3 axes 48M/min. rapid traverse.
9. Z axis brake motor.
10. Z axis auto ascend when power failure.  
(Heidenhain CNC machine not available)
11. Rigid tapping.
12. Auto power off.
13. Coolant system.
14. Spindle air blast.
15. Auto lube with alarm.
16. Work light.
17. Coolant gun & air gun.
18. Levelling pads & bolts.
19. Tools & tool box.
20. Operation/parts manuals.

## OPTIONAL ACCESSORIES:

1. CE/EMC Conformity machine.
2. High pressure coolant thru spindle 8 bars/22 bars.
3. Chain type chip conveyor (Single side at backside)
4. Oil-mist coolant system.
5. Oil-mist filtering and recycle system.
6. Tool length measurement system.
7. Workpiece measurement system.
8. HSK-63A taper spindle.