

MICROCUT
THE CHALLENGER



MACHINING CENTER
RH-20/RH-30/RH-35



National Award
of Outstanding



ISO 14001:2004
EMS 546518



ISO 9001:2008
FM 538421

ECONOMICAL CNC MACHINING CENTER

High Cutting Capacity

Rigid construction

Precision cutting

Reliable processing

RH-20

XYZ 1000/600/600mm
Table size 1300x600mm

RH-30

XYZ 1500/740/680mm
Table size 1950x610mm

RH-35

XYZ 2000/840/710mm
XYZ 2500/840/710mm
Table size 2340x762mm
Table size 2845x762mm



Photo shown:
RH-20/Full Guarding/Carousel Type ATC

ATC (Option)

Rapid tool change with options

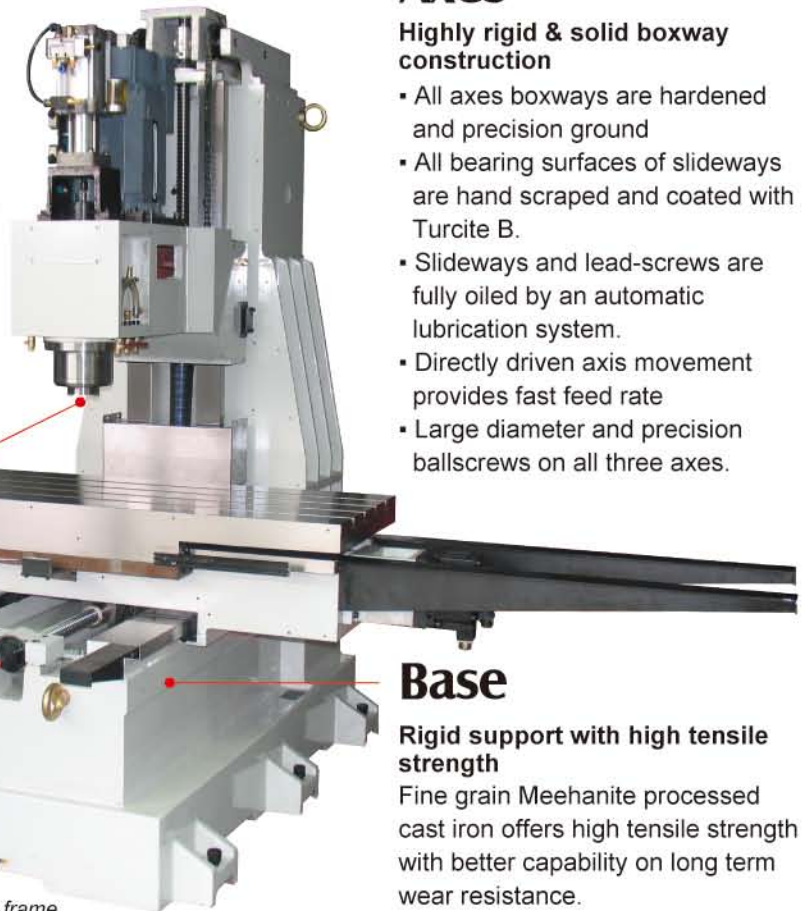
- Excellent rigidity for holding tools and greatly reduces the interference.
- Built-in air blast function keeps tools clean.
- Smooth, quiet, and precise movement.
- Arm type ATC with 24T is available on request.



Carousel ATC 20T



Arm ATC 24T



Axes

Highly rigid & solid boxway construction

- All axes boxways are hardened and precision ground
- All bearing surfaces of slideways are hand scraped and coated with Turcite B.
- Slideways and lead-screws are fully oiled by an automatic lubrication system.
- Directly driven axis movement provides fast feed rate
- Large diameter and precision ballscrews on all three axes.

Spindle

- Angular contact precision bearing assures rigidity and supports speed up to 8000 rpm. (10000 rpm is available on request)
- Coolant through spindle with high pressure pump greatly extends tool life when machining

Base

Rigid support with high tensile strength
Fine grain Meehanite processed cast iron offers high tensile strength with better capability on long term wear resistance.

RH-20 frame

ACCESSIBLE • CONVENIENT • SAFE

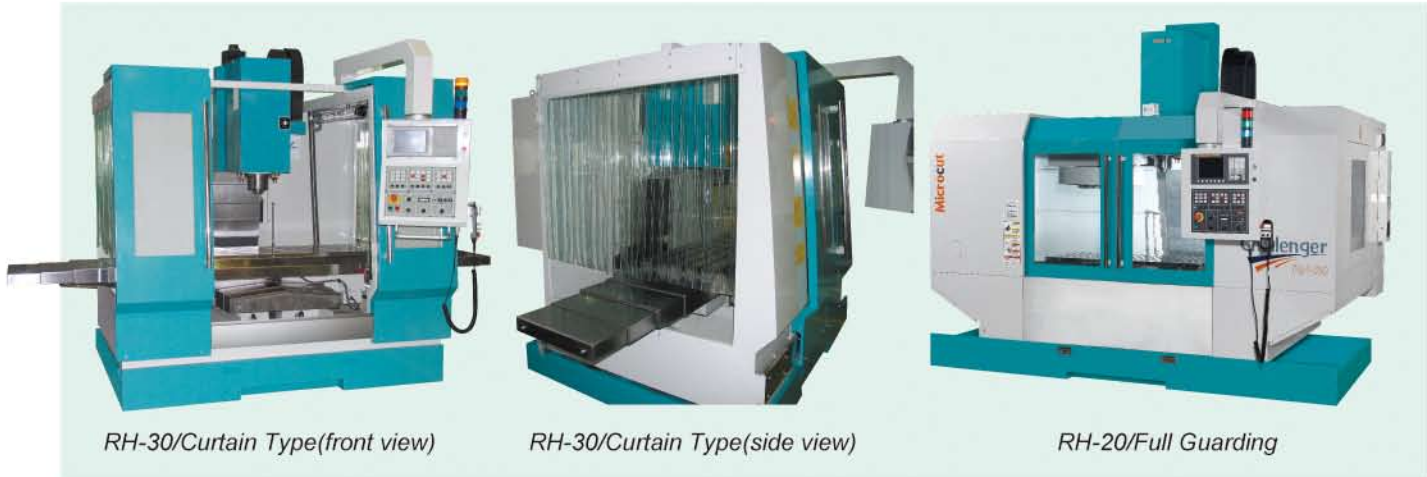
With alternative selections

▪ Curtain type

Built with extension chip trays for easily loading/uploading the large workpiece.

▪ Full enclosure guarding type

Coupled with ATC design for safety and efficiency operation.



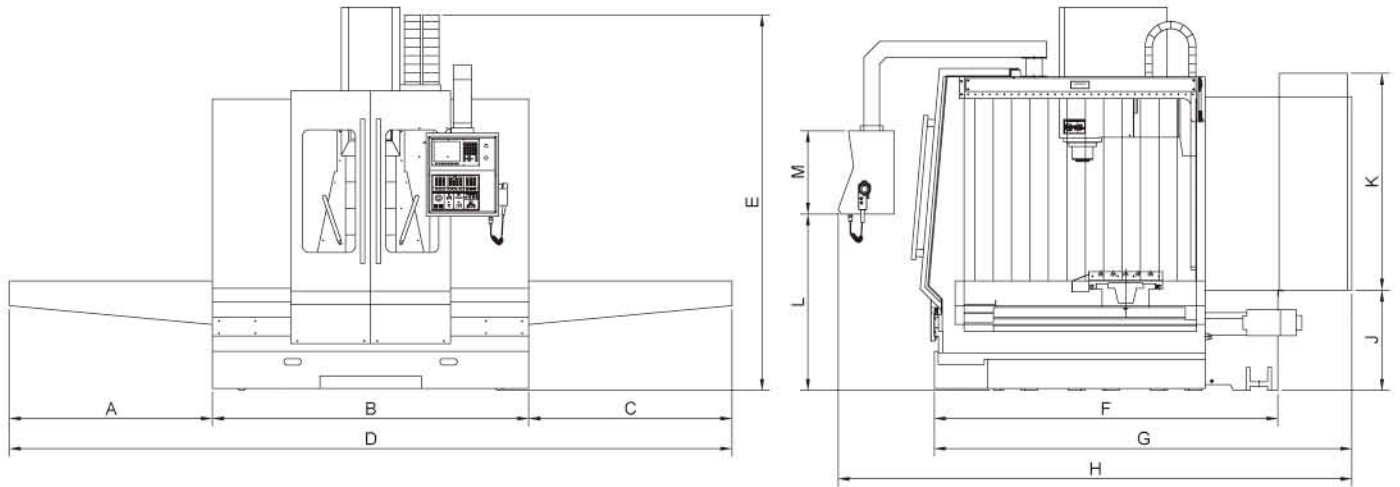
Accessories

Standard	<ul style="list-style-type: none"> ▪ Coolant system ▪ Automatic Lubrication system 	<ul style="list-style-type: none"> ▪ Pneumatic power draw bar ▪ Work light ▪ Z axis telescopic way cover for down 	<ul style="list-style-type: none"> ▪ Portable MPG for 3 Axes ▪ Spindle side flushing
Optional	<ul style="list-style-type: none"> ▪ Heat exchanger for cabinet ▪ 4th axis ▪ Spindle oil cooler 	<ul style="list-style-type: none"> ▪ Top enclosure guard for full guarding roof(for CTS use) ▪ 20 tools carousel type ATC ▪ 24 tools arm type ATC ▪ EMC 	<ul style="list-style-type: none"> ▪ Extra I/O module for machine with rotary table ▪ Coolant through spindle with high pressure pump



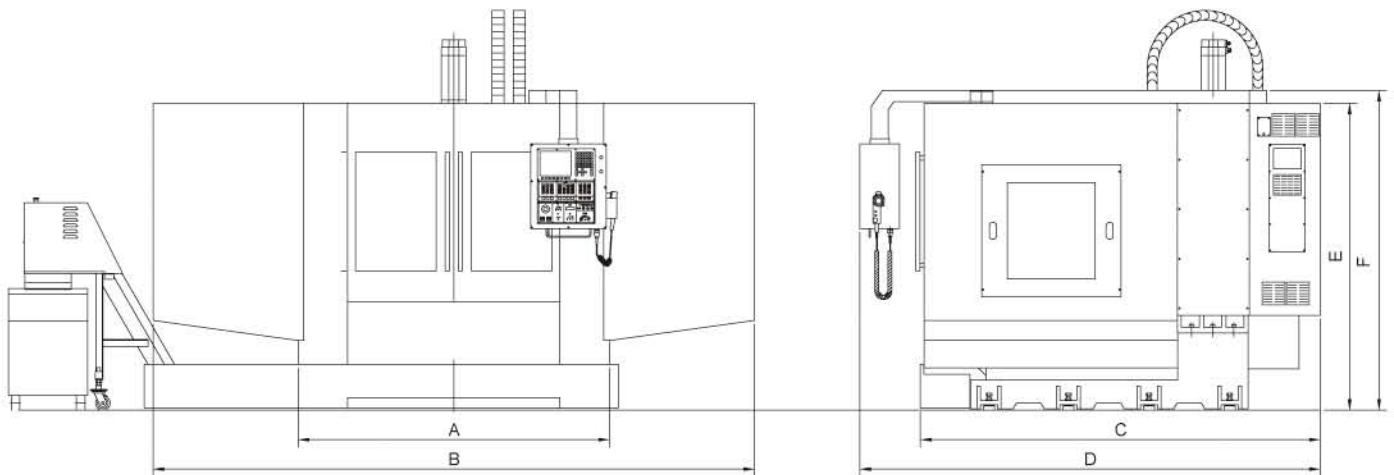
Layout drawing

Curtain type



	A	B	C	D	E	F	G	H	J	K	L	M
RH-20	723	2180	723	3626	2545	1910	2416	3050	759	1250	1201	574
RH-30	1400	2180	1400	4980	2590	2368	2878	3540	692	1495	1217	574

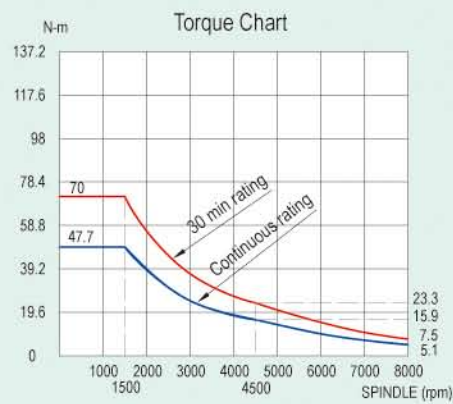
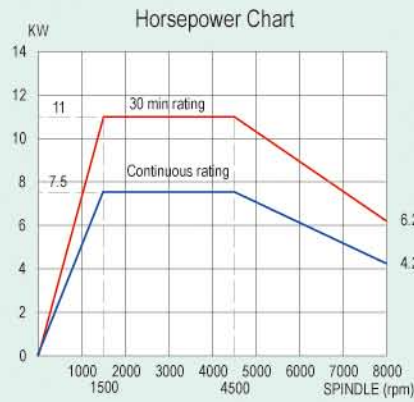
Full Guarding



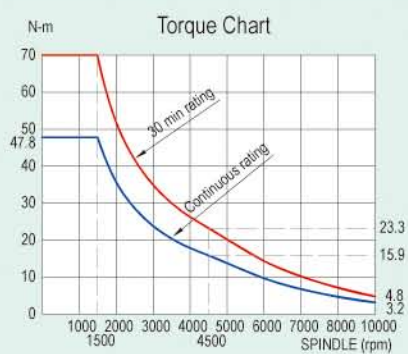
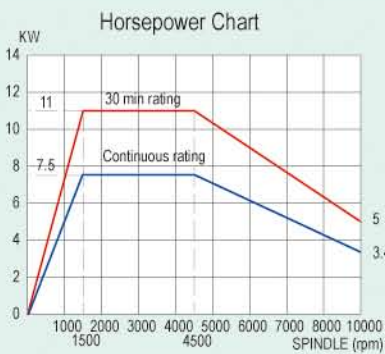
	A	B	C	D	E	F
RH-20	2475	3395	1965	1997	2025	2105
RH-30	2200	4250	2825	3253	2171	2261

Horsepower & Torque Chart

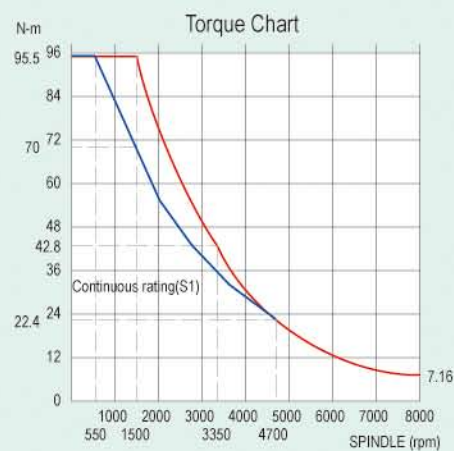
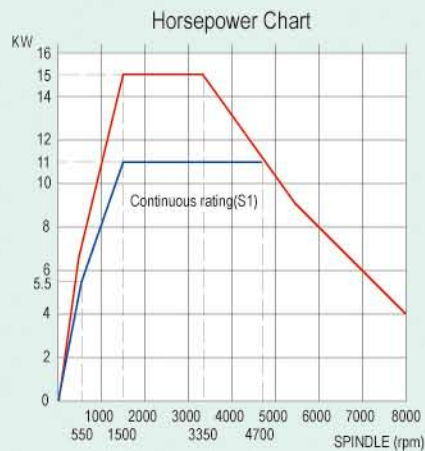
Mitsubishi
7.5/11kw 8000rpm



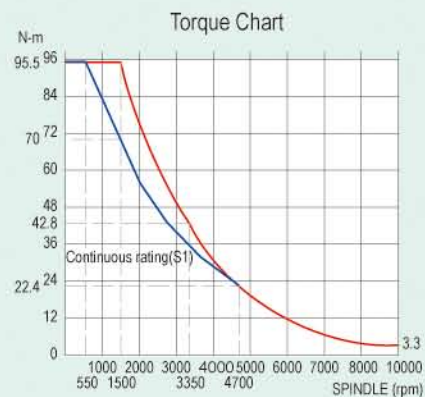
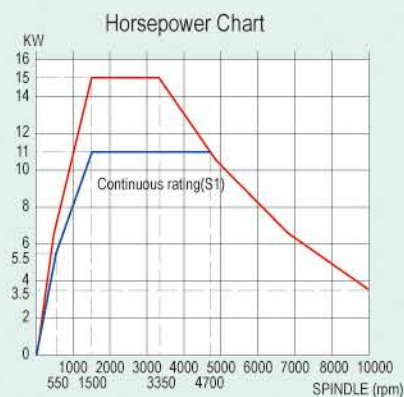
Mitsubishi
7.5/11 kw 10000 rpm



Siemens
11/15kw 8000rpm

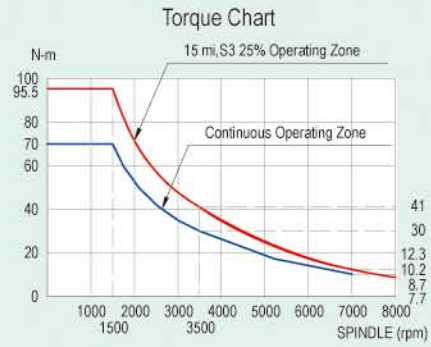
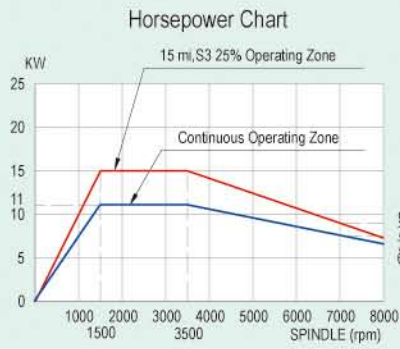


Siemens
11/15 kw 10000 rpm

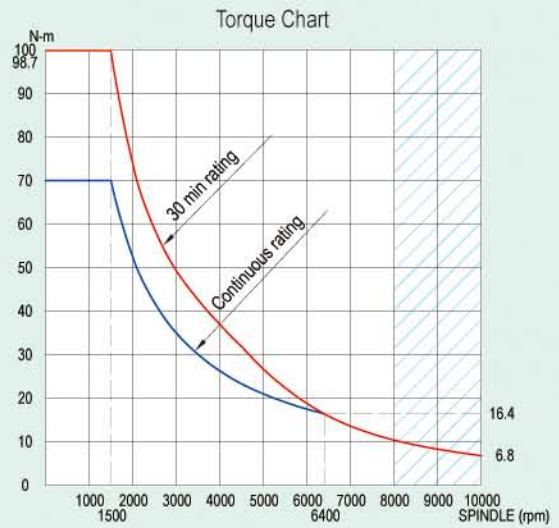
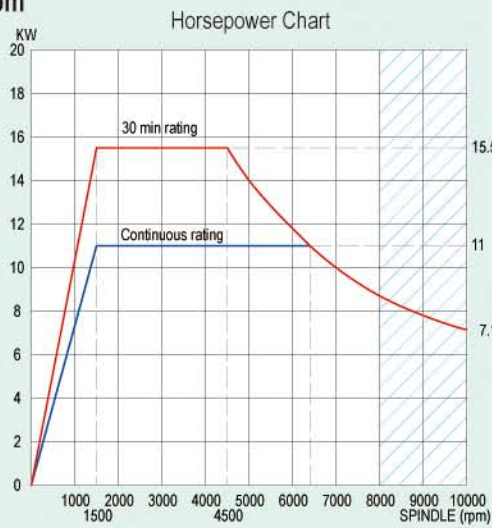


Horsepower & Torque Chart

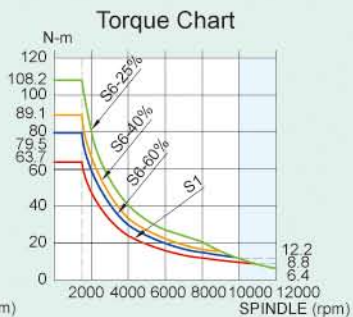
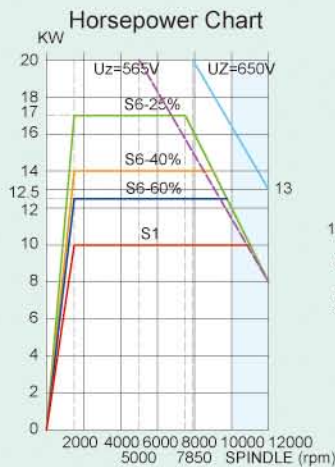
Fanuc
11/15kw 8000rpm



Fagor
11/15 kw 8000 rpm

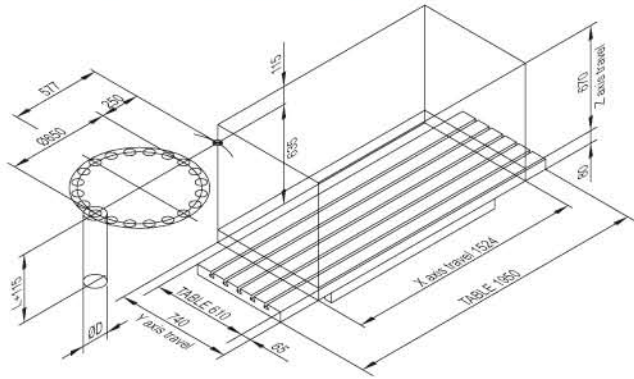


Heidenhain
10/14KW 10000rpm

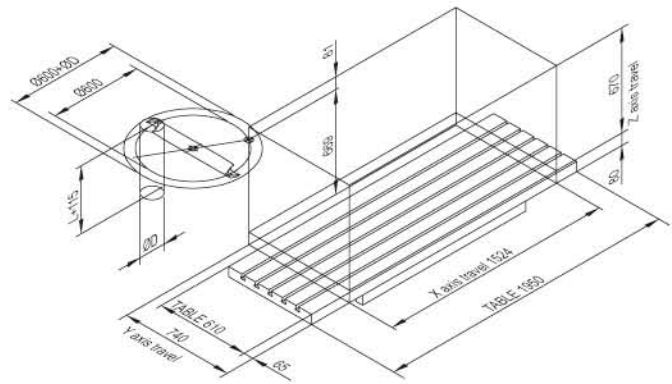


Interference drawing

RH-30 / Carousel type ATC 20T

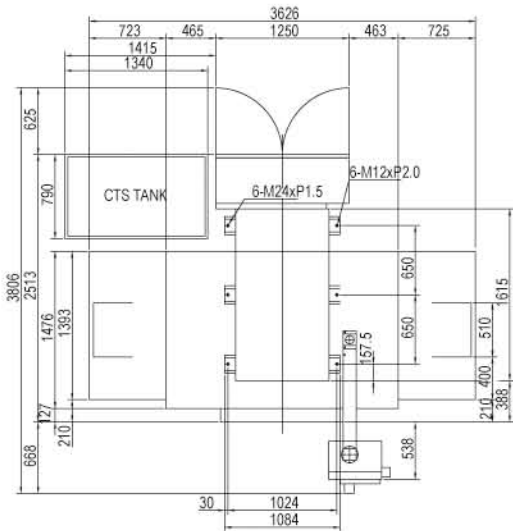


RH-30 / Arm type ATC 24T

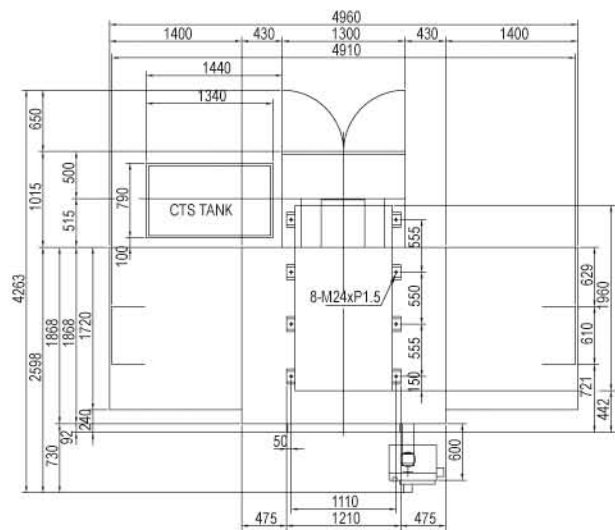


Foundation drawing

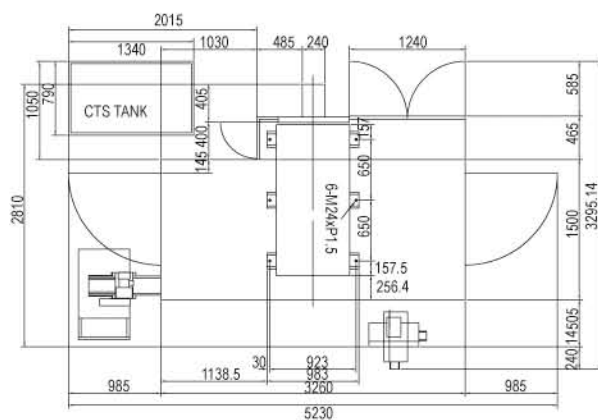
RH-20 Curtain-type guarding & chip conveyor



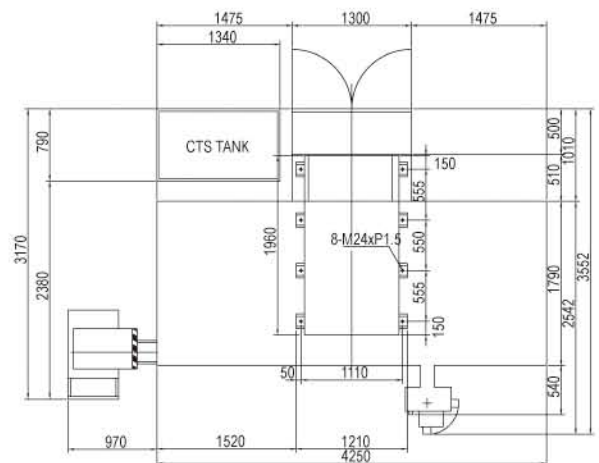
RH-30 Curtain-type guarding & chip conveyor



RH-20 Full enclosure guarding & chip conveyor



RH-30 Full enclosure guarding & chip conveyor



Specification

Items	Unit	RH-20	RH-30 (X-1500)	RH-35 (X-2000) (Full guard)	RH-35 (X-2500) (Table guard)
TABLE					
Tables size	mm	1300x600	1950x610	2340x762	2845x762
Table height	mm	890	840	880	
Table loading capacity	Kg	800	1500	1800	
T-slot (w x pitch x No)		18x100x5		18x120x5	
TRAVEL					
X Axis	mm	1000	1500	2000	2500
Y Axis	mm	600	740	840	840
Z Axis	mm	600	680	710	710(std.)/840(opt.)
SPINDLE					
Taper	ISO	40			
Spindle speed	rpm	8000 (std.) / 10000 (opt.)			
Spindle nose to table	mm	100~700	80~760	863	
Spindle center to column	mm	623	715	100~810	100~810(std.)/100~940(opt.)
AXES TRANSMISSION					
X/Y/Z ballscrew	mm	ø40 x P12 x C5	ø40 x P12 x C5	ø50 x P10 x C5	
Transmission		Direct	Direct	Belt	
XYZ rapid feed	m/min	24			20
XYZ feed rate	m/min	10			
MOTOR					
Spindle	kw	Fagor: 5.5/7.7, 7.5/11 Fanuc: 5.5/7.5, 7.5/11, 11/15 Siemens: 7/9, 11/15 Heidenhain: 10/14 Mitsubishi: 5.5/7.5, 7.5/11	Fagor: 5.5/7.7 Fanuc: 5.5/7.5, 7.5/11, 11/15 Siemens: 11/15, 15/20 Heidenhain: 10/14 Mitsubishi: 7.5/11, 11/15	Fagor: 11/15.5 Fanuc: 5.5/7.5, 7.5/11, 11/15 Siemens: 11/15, 15/20 Heidenhain: 10/14	
ATC					
Tool taper		BT/CAT/DIN40			
Pocket		Carousel 20T(std.) / Arm 24T(opt.)		Carousel 20T (opt.) / Arm 24T (opt.)	
Max. tool diameter(full load)	mm	Carousel type: ø100 / Arm type: ø76		Carousel type: ø100 / Arm type: ø80	
Max. tool weight	kg	Carousel type: 8 / Arm type: 7		Carousel type: 8 / Arm type: 8	
Max. tool length	mm	Carousel type: 160 / Arm type: 120		Carousel type: 350 / Arm type:300	
ACCURACY					
Positioning accuracy	mm	+/-0.005/300			
Repeatability	mm	0.005			
DIMENSION					
Full guard w/o chip conveyor (LxWxH)	mm	3266x3050x2790	4250x5300x3300	5700x4000x2800	6350x4400x3000
Weight (Full guard)	kg	5000	6000	8800	9300

*Specifications are subject to change without notice.



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