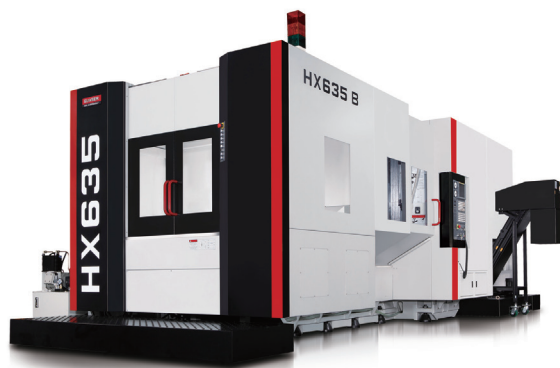


Horizontal Machining Centre



HX635 SERIES ISO 50

Control: (F) FANUC (S) SIEMENS

Technical Data	HX635			
	A		B	
Specification code	HT	HS	HT	HS
Work range				
Pallet size (mm)	□ 630			
Max. work swing diameter (mm)	Ø950			
Max. work piece height	950			
Table load capacity (kg)	900			
Travel X / Y / Z (mm)	1,000 / 800 / 900			
B minimum indexing (degree)	1		0.001	
Table surface to spindle center (mm)	50 ~ 850			
Spindle nose to table center (mm)	150 ~ 1,050			
Surface configuration	24-M16 Tapped holes; pitch: 125			
Feed drive				
Feed force X / Y / Z (N)	11,780 / 14,920 / 11,780 (F) 14,137 / 18,850 / 14,137 (S)			
Rapid movement X / Y / Z (m/min)	40			
B (sec. /90 degree)	2.5		2	
Acceleration X / Y / Z (m/s ²)	4 / 5 / 5 (F) (S)			
Dia. & pitch of the ball screw (mm)	Ø50 x 16			
Accuracy Positioning / Repeatability				
ISO 230-2	0.008 / 0.004			
JIS 6338 (300 mm)	± 0.003 / ± 0.002			
VDI3441	0.008 / 0.004			
Main spindle				
Spindle taper	BBT50			
Max. spindle speed	6,000	10,000	6,000	10,000
Spindle base speed F / S	375 / 500	460 / 2000	375 / 500	460 / 2000
Spindle output (kW) (S3-25%) F / S	35 / 46.5 ⁽¹⁾	37 ⁽²⁾ / 46.5 ⁽¹⁾	35 / 46.5 ⁽¹⁾	37 ⁽²⁾ / 46.5 ⁽¹⁾
Spindle torque (Nm) (S3-25%) F / S	891 / 888 ⁽¹⁾	350 ⁽²⁾ / 222 ⁽¹⁾	891 / 888 ⁽¹⁾	350 ⁽²⁾ / 222 ⁽¹⁾
Spindle transmission	Gear box+Coupling	Coupling	Gear box+Coupling	Coupling
Spindle bearing diameter (mm)	Ø100			

Continued »

HX635 SERIES ISO 50

Control: (F) FANUC (S) SIEMENS

Technical Data	HX635			
	A		B	
Specification code	HT	HS	HT	HS
Tool changer	Random pocket, bidirectional election (40ATC) Address fixed, random method (60 & 120 & 150ATC)			
Tool selection	40 (std.) / 60 & 120 & 150 (opt.)			
Magazine positions	40 (std.) / 60 & 120 & 150 (opt.)			
Max. tool diameter w/o adjacent tool (mm)	Ø110 / Ø220 (40ATC) Ø125 / Ø230 (60 & 150ATC) Ø125 / Ø400 (120ATC)			
Max. tool length (mm)	500			
Max. tool weight (kg)	15 (40 & 150ATC)		20 (60ATC) 30 (120ATC)	
Max. tool weight moment <from spindle gauge line> (Nm)	30 (40 & 60ATC)		25 (150ATC) 50 (120ATC)	
Tool to tool time (sec.) ⁽³⁾	3.9			
Chip to chip time (sec.) ⁽³⁾	7.9			
Pallet changer	2			
Number of pallet	ARM type			
Method of pallet changer	14			
Pallet change time (sec.)	0.01			
Pallet changing repeatability (mm)				
Coolant system	900 L			
Coolant tank capacity (Liter) ⁽³⁾	60 L / min, 4 bar			
- Nozzle coolant pump capacity	25 L / min, 20 bar			
- Through spindle coolant pump capacity	100 L / min, 2.6 bar			
- Ceiling & wash down pump capacity				
Machine size	3,006			
Height (mm)	4,225 x 6,730 (40ATC)		4,280 x 7,550 (120ATC) 4,905 x 7,220 (150ATC)	
Floor space W x D (mm)	19,600 (40ATC)		20,500 (60ATC) 22,500 (120ATC) 23,600 (150ATC)	
Weight (kg)				
Connections	220 V / 60 Hz or 400 V / 50 Hz			
Main power				
Power consumption (KVA)	48 (F) 47 (S)	51 (F) 47 (S)	48 (F) 47 (S)	52 (F) 47 (S)

●=Standard ○=Option ×=N/A

Standard / Option accessories	HX504					
Specification code	AC	BC	AE	BE	AP	BP
■ QUASER mill i	○	○	●	●	×	×
■ FANUC 31iB	×	×	×	×	●	●
■ SIEMENS 828D	●	●	×	×	×	×
■ SIEMENS 840D	×	×	×	×	○	○
■ Spindle ECO cooler	●	●	×	×	×	×
■ Spindle oil chiller	○	○	●	●	●	●
■ Coolant through ball screw	×	×	●	●	●	●
■ BT tooling (QUASER SUPPLY)	●	●	●	●	●	●
DIN tooling (69872-A) / ISO tooling (7388-B)	○	○	○	○	○	○
■ ISO 40 48 position tool magazine (Chain type)	●	●	×	×	×	×
60 position tool magazine (Chain type)	○	○	×	×	×	×
60 position tool magazine (Disk type)	×	×	●	●	●	●
120 position tool magazine (Chain type)	×	×	○	○	○	○
240 position tool magazine (Pack type)	×	×	○	○	○	○
■ ISO 50 30 position tool magazine (Chain type)	×	×	×	×	×	×
40 position tool magazine (Chain type)	×	×	×	×	×	×
40 position tool magazine (Disk type)	×	×	×	×	×	×
60 position tool magazine (Chain type)	×	×	×	×	×	×
120 position tool magazine (Chain type)	×	×	×	×	×	×
150 position tool magazine (Pack type)	×	×	×	×	×	×
■ Balance tooling for spindle warm up	○	○	●	●	●	●
■ Pull stud for BT tooling	○	○	●	●	●	●
■ Air pressure detector for pallet clamping	○	○	●	●	●	●
■ Hydraulic through pallet (3 ports)***	○	○	○	○	○	○
■ 2 pallet station	●	●	●	●	●	●
■ NC rotary table (0.001°) with rotary encoder	×	○	×	○	×	○
■ Linear encoder	○	○	○	○	○	○
■ Panel MPG	●	●	×	×	×	×
■ Remote MPG	○	○	●	●	●	●
■ Transformer	○	○	●	●	●	●
■ Work probe	○	○	○	○	○	○
■ Tool length / breakage measurement (Laser)**	○	○	○	○	○	○
■ 20 bar through spindle coolant	○	○	●	●	●	●
■ 50 bar through spindle coolant	○	○	○	○	○	○
■ 70 bar through spindle coolant	×	×	○	○	○	○
■ Ceiling wash down coolant	○	○	●	●	●	●
■ Base, wash down coolant	×	×	×	×	×	×
■ Coolant wash gun	○	○	●	●	●	●
■ Internal Chip augers	●	●	●	●	●	●
■ Internal Chip conveyor	×	×	×	×	×	×
■ External Chip auger	●	●	×	×	×	×
■ External chip conveyor	○	○	●	●	●	●
■ Drum type conveyor	○	○	○	○	○	○
■ Bag filter	○	○	○	○	○	○
■ Mist collector	○	○	○	○	○	○
■ Documentation	○	○	○	○	○	○
■ Work light	●	●	●	●	●	●
■ Machine status light	●	●	●	●	●	●
■ CE & EMC* / GB	○	○	○	○	○	○

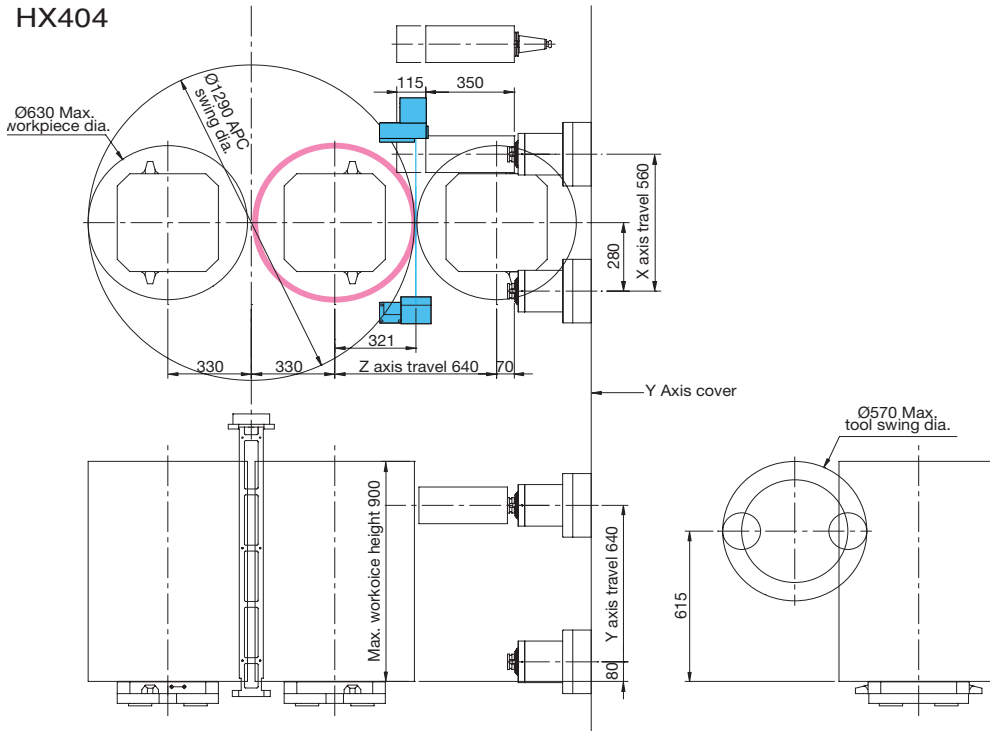
Note: *Standard for EU area except C type.

** HX504 / 505 / 635 / 805 only available for NC4S Renishaw.***Factory mounted only.

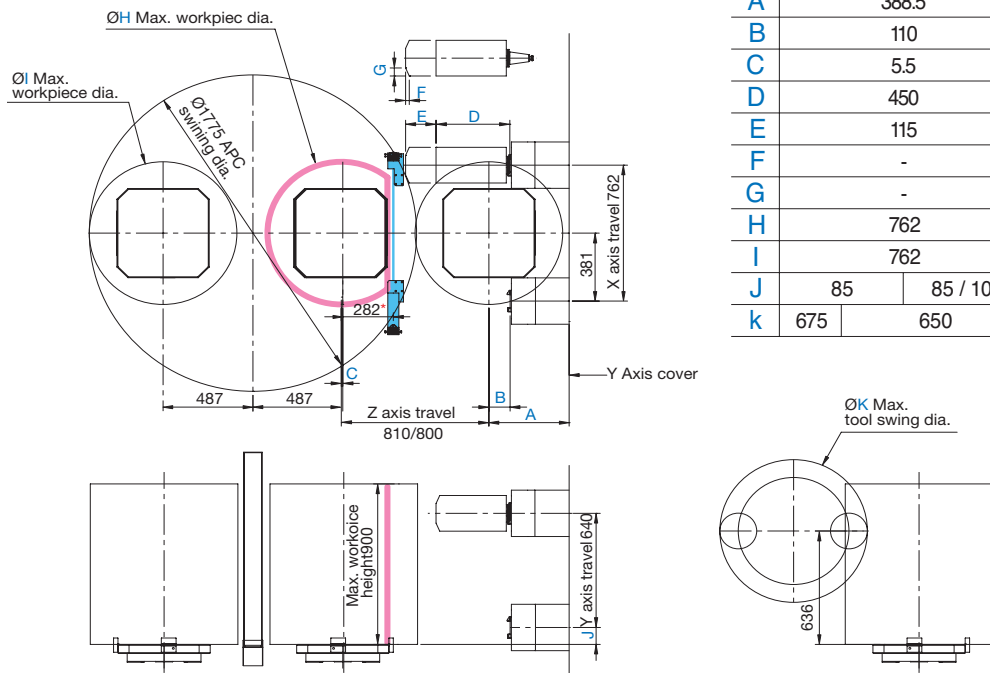
- For C series ambient temperature greater than 35°C the cabinet heat exchanger is required.

- Machine specification might be different from the catalog if there is any specification update.

HX404



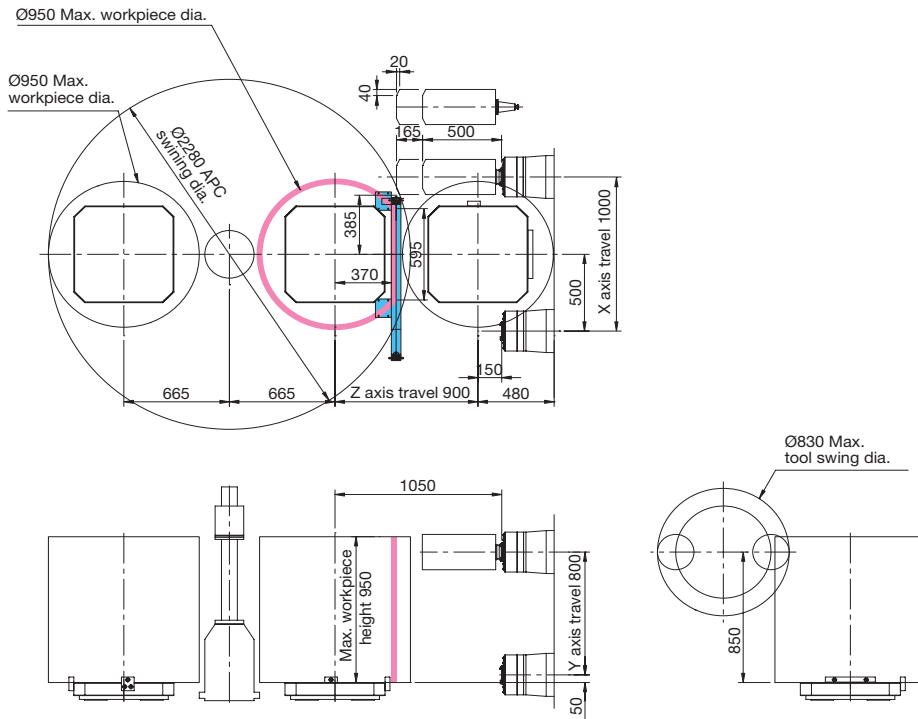
HX504 / HX505



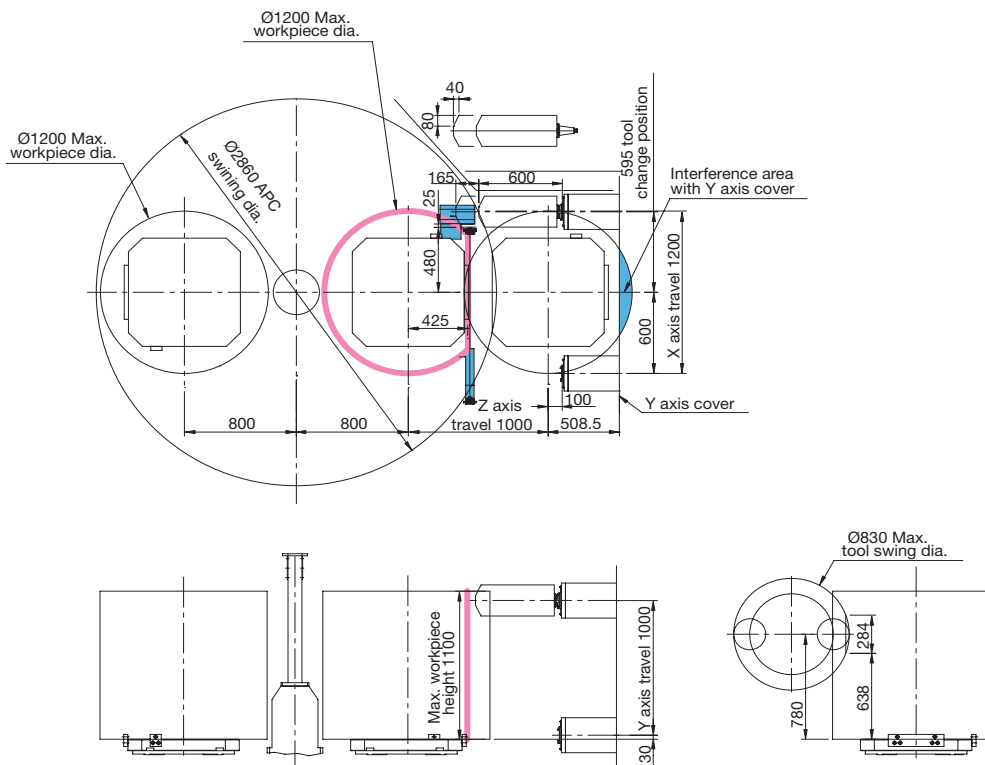
	HX504		HX505	
	C	E	P	P
	Belt		Belt / Coupling	
A	388.5		435	
B	110		115	
C	5.5		8	
D	450		400	
E	115		165	
F	-		20	
G	-		45	55
H	762		800	
I	762		800	
J	85	85 / 100		85 / 85
k	675	650		770

Note: *Maximum workpiece swing may impact "TOOL LENGTH MEASUREMENT" functionally.

HX635

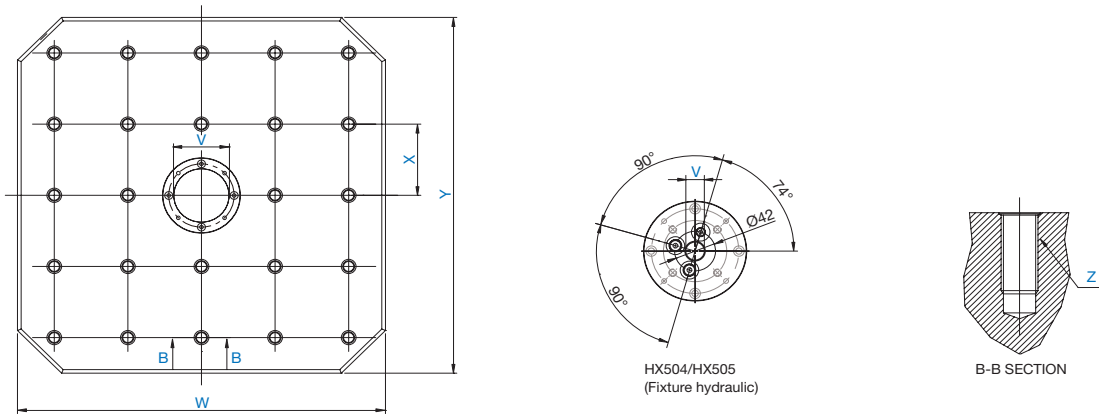


HX805



Pallet dimension

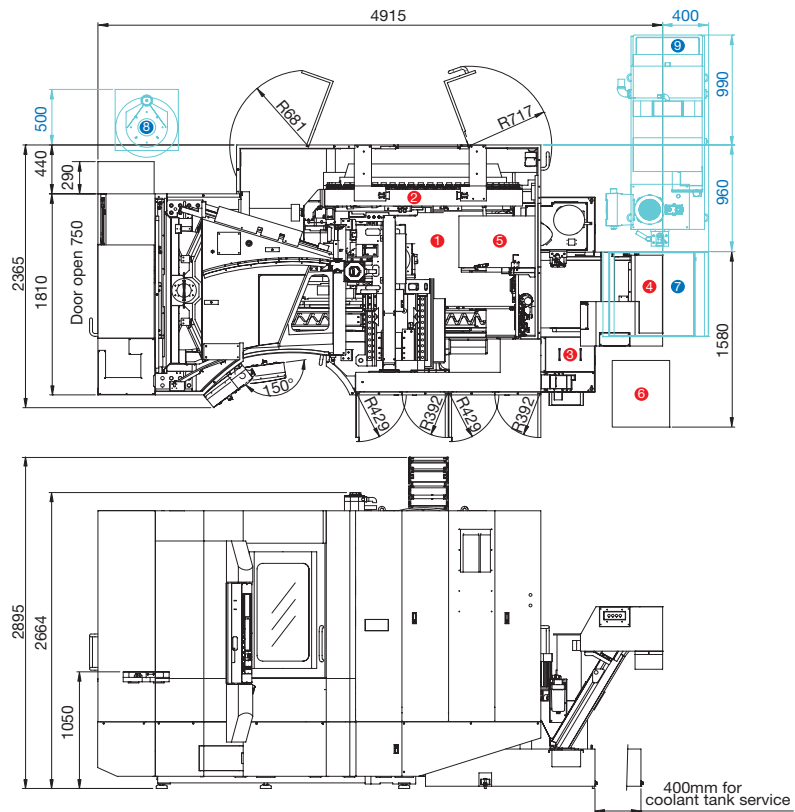
	HX404	HX504/HX505/8APC	HX504/HX505 (Fixture hydraulic)	HX635	HX805
V	$\varnothing 50^{+0.016}_0 \times D32$	$\varnothing 50^{+0.016}_0 \times D32$	$\varnothing 19^{+0.016}_0 \times D25$	$\varnothing 30^{+0.02}_0 \times D15$	
W	400	500	500	630	800
X	80	100	100	125	160
Y	400	500	500	630	800
Z	24-M16				



Installation dimension

HX404

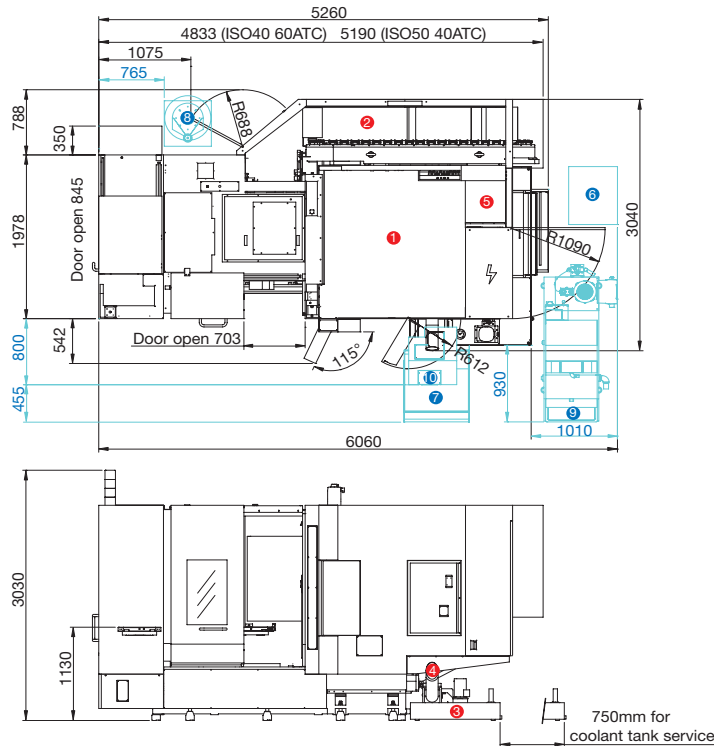
- 1 Standard Machine
- 2 Magazine unit
- 3 Coolant supply unit
- 4 Chip conveyor
- 5 Spindle cooling unit & Hyd. tank unit
- 6 Transformer
- 7 Chip bucket (Opt.)
- 8 Mist collector (Opt.)
- 9 Filtration unit (Opt.)



Installation dimension

HX504C/HX505C

- ① Standard Machine
- ② Magazine unit
- ③ Coolant supply unit
- ④ Spiral type chip auger
- ⑤ Spindle cooling unit & Hyd. tank unit
- ⑥ Transformer (Opt.)
- ⑦ Chip bucket (Opt.)
- ⑧ Mist collector (Opt.)
- ⑨ Filtration unit (Opt.)
- ⑩ Chip conveyor (Opt.)

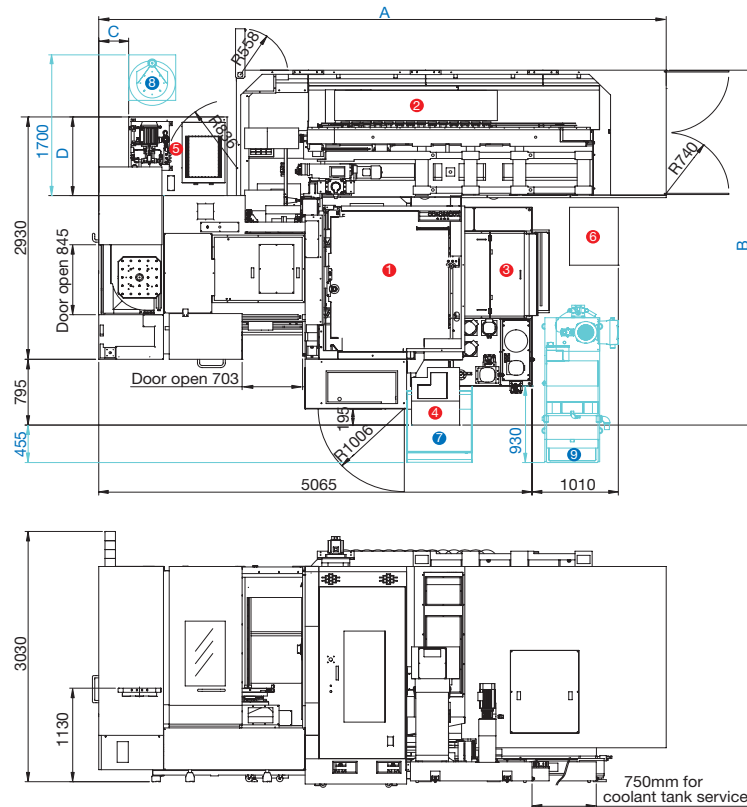


HX504/HX505

- ① Standard Machine
- ② Magazine unit
- ③ Coolant supply unit
- ④ Chip conveyor
- ⑤ Spindle cooling unit & Hyd. tank unit
- ⑥ Transformer
- ⑦ Chip bucket (Opt.)
- ⑧ Mist collector (Opt.)
- ⑨ Filtration unit (Opt.)

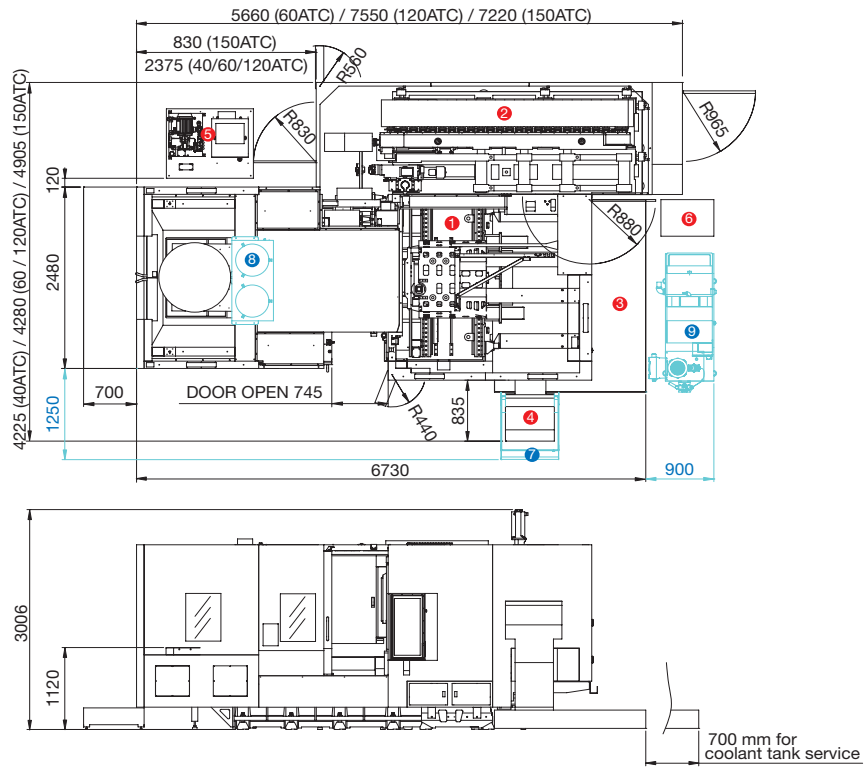
HX504				
	A	B	C	D
60ATC	4,280	3,450	350	950
120ATC	4,800	3,620	350	950
240ATC	5,400	3,930	-	950

HX505				
	A	B	C	D
40ATC	4,280	3,450	350	950
60ATC	4,800	3,620	350	950
120ATC	6,750	3,620	350	950
150ATC	6,630	4,300	-	950



HX635

- 1 Standard Machine
- 2 Magazine unit
- 3 Coolant supply unit
- 4 Chip conveyor
- 5 Spindle cooling unit & Hyd. tank unit
- 6 Transformer
- 7 Chip bucket (Opt.)
- 8 Mist collector (Opt.)
- 9 Filtration unit (Opt.)



HX805

- 1 Standard Machine
- 2 Magazine unit
- 3 Coolant supply unit
- 4 Chip conveyor
- 5 Spindle cooling unit & Hyd. tank unit
- 6 Transformer
- 7 Chip bucket (Opt.)
- 8 Mist collector (Opt.)
- 9 Filtration unit (Opt.)

