

All New

FH5000S Series



FH5000S-i #40 550

FH5500S-i #50 550

FH5500SX-i #50 550

- **Concept & Target industries**
- **Machine Specification**
- **Machine Layout**
- **□550/□500 Pallet**
- **FMS/VPP Application**

Concept for our new machine



More Efficient

Easy preparation

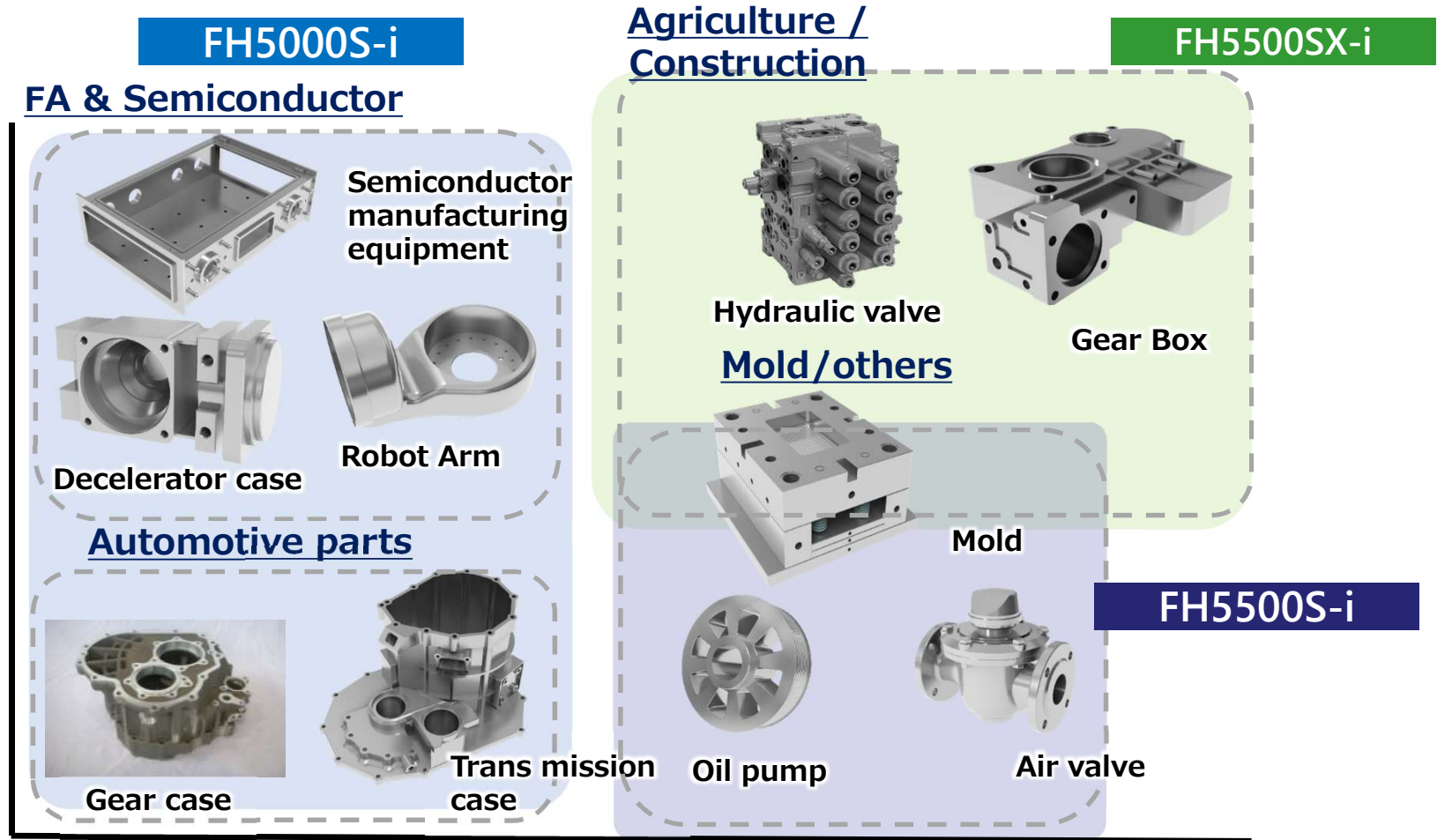
Free from the chips

Faster, Larger

Target industries



Wide Variety



Mass production

Aluminum

Cast Iron

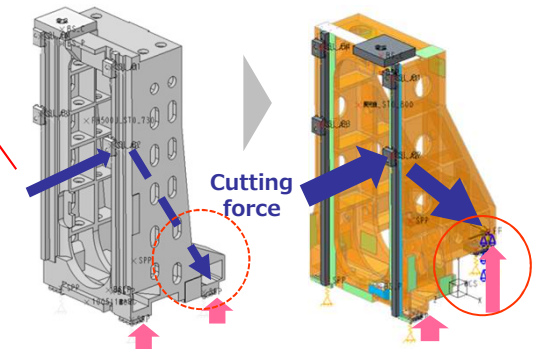
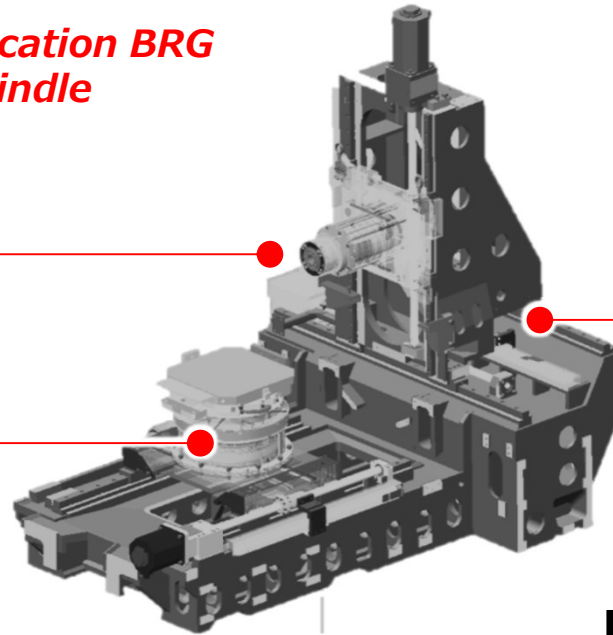
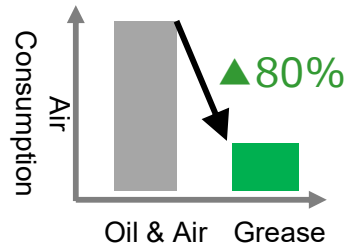
Hardened Steel

■ High speed spindle with Grease Lubrication only for FH5000S-i 15,000rpm spindle

FH5000S-i

World's top class grease lubrication BRG for the machining center's spindle

Clean for environment



■ Slanted Column

FH5000S-i
FH5500S-i
FH5500SX-i

Step is added to the X-Axis guide

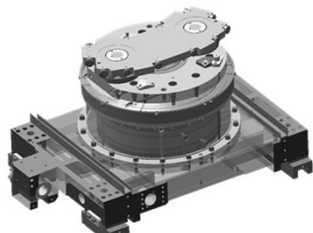
Z-Axis Rigidity have increased
X-Axis can move faster
(Column's weight has lighter)

■ DD Table will be the standard

(FH5000 series)

FH5000S-i

FH5500S-i



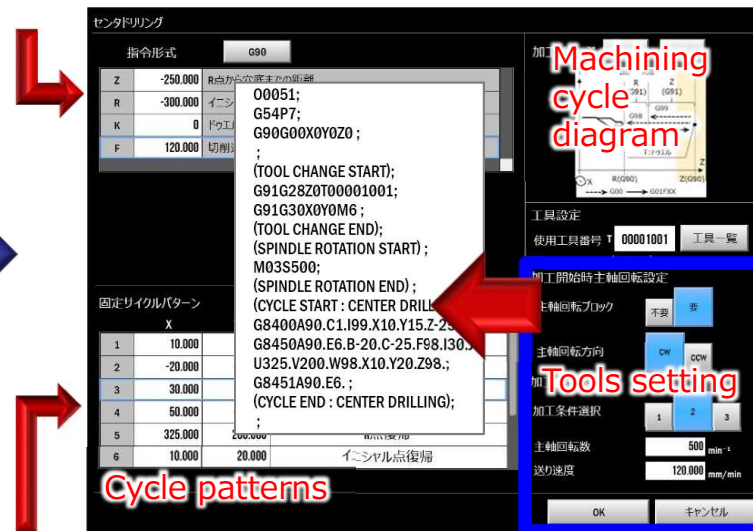
- Backlash free & High precision index
- Max load 1-ton (No.1)
- Index speed 90° 0.7s (No.1)

Easy preparation



Everyone can chose machining program they want

Put the dimensions with referring the cycle diagram



40 Type of Machining programs are installed

TOYOPUC-Touch can show you the "image" of Machining programs

How many holes? What kind of shape? Just chose, and enter.

TOYOPUC-Touch makes machining program!

Dialogue method programing is available

"FANUC 32M B Plus" inside

Easy preparation



Program

Tool preparation

work attached

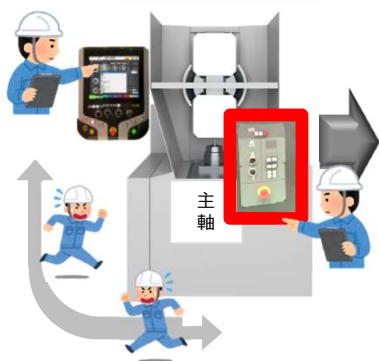
Centering

Machining

Measurement

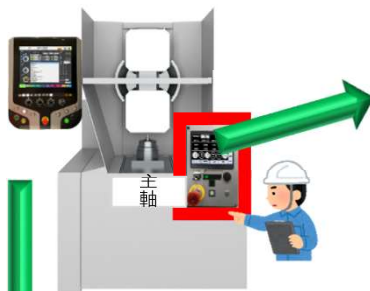
Work remove

Until now



You have to move between main control panel and sub control panel...

FH5000S-i
FH5500S-i
FH5500SX-i



7inch Magazine panel



TOYOPUC-Touch



You can check, and calling the tool information from sub panel

工具管理1/2	各値 OK	寿命値 OK	併換	AC	M/C 異常	POT 選択
POT No.	001	主軸	工具 No.	12345678	異常	工具
寿命値	1000	予報値	900	工具	管理	編集
現在値	951	予報率	90%	調整		
MG 取出	MG 戻り	MG 戻り	工具 取り外	工具 取り付	1/2	調整
←	→	工具管理	AC機能	戻る	メニュー	

You can indexing tool magazine with seeing Tool information

工具オフセット	各値 OK	寿命値 OK	併換	AC	M/C 異常	POT 選択
POT No.	200	主軸	工具 No.	12345678	異常	工具
形状	H	0000.000	0000.000	0000.000	調整	
D	0000.000	0000.000	0000.000	調整		
摩耗	H	0000.000	0000.000	0000.000	調整	
D	0000.000	0000.000	0000.000	調整		
←	→	工具管理	AC機能	戻る	メニュー	

You can edit Tool-life, Tool- offset with tool change position.

ポット	工具名	形状	規格	寿命	予報	現在	調整
1	22140001	センタードリル	Φ8.0	25.40	25.40	25.40	調整
2	22140002	センタードリル	Φ10.0	31.75	31.75	31.75	調整
3	22140003	センタードリル	Φ12.0	38.10	38.10	38.10	調整
4	22140004	センタードリル	Φ14.0	44.45	44.45	44.45	調整
5	22140005	センタードリル	Φ16.0	50.80	50.80	50.80	調整
6	22140006	センタードリル	Φ18.0	57.15	57.15	57.15	調整
7	22140007	センタードリル	Φ20.0	63.50	63.50	63.50	調整
8	22140008	センタードリル	Φ22.0	69.85	69.85	69.85	調整
9	22140009	センタードリル	Φ24.0	76.20	76.20	76.20	調整
10	22140010	センタードリル	Φ26.0	82.55	82.55	82.55	調整
11	22140011	センタードリル	Φ28.0	88.90	88.90	88.90	調整
12	22140012	センタードリル	Φ30.0	95.25	95.25	95.25	調整
13	22140013	センタードリル	Φ32.0	101.60	101.60	101.60	調整
14	22140014	センタードリル	Φ34.0	107.95	107.95	107.95	調整
15	22140015	センタードリル	Φ36.0	114.30	114.30	114.30	調整
16	22140016	センタードリル	Φ38.0	120.65	120.65	120.65	調整
17	22140017	センタードリル	Φ40.0	127.00	127.00	127.00	調整
18	22140018	センタードリル	Φ42.0	133.35	133.35	133.35	調整
19	22140019	センタードリル	Φ44.0	139.70	139.70	139.70	調整
20	22220001	センタードリル	Φ46.0	146.05	146.05	146.05	調整
21	22140020	センタードリル	Φ48.0	152.40	152.40	152.40	調整
22	22140021	センタードリル	Φ50.0	158.75	158.75	158.75	調整

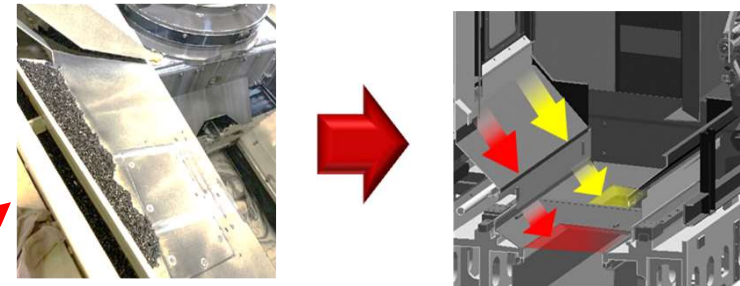
You can see the tool life and tool situation on the TOYOPUC-Touch

TOYOPUC-Touch can support your preparation

■ Double Center Trough

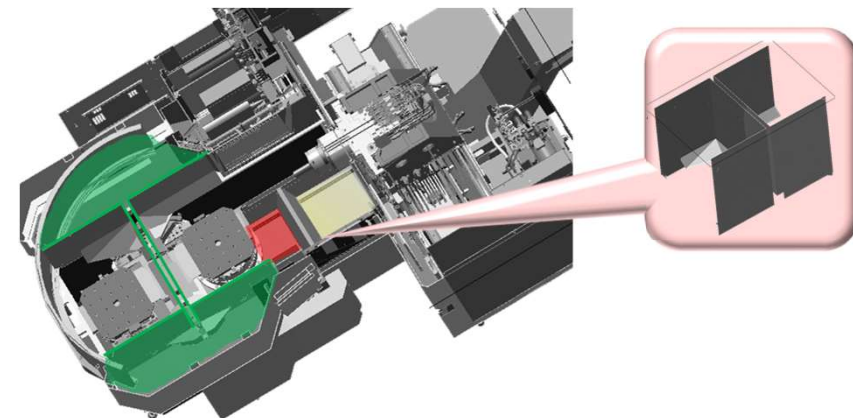
Center trough area have increased **70%** more and you can save **50%** of chip collection time

■ MAX 45° Slope in the machine



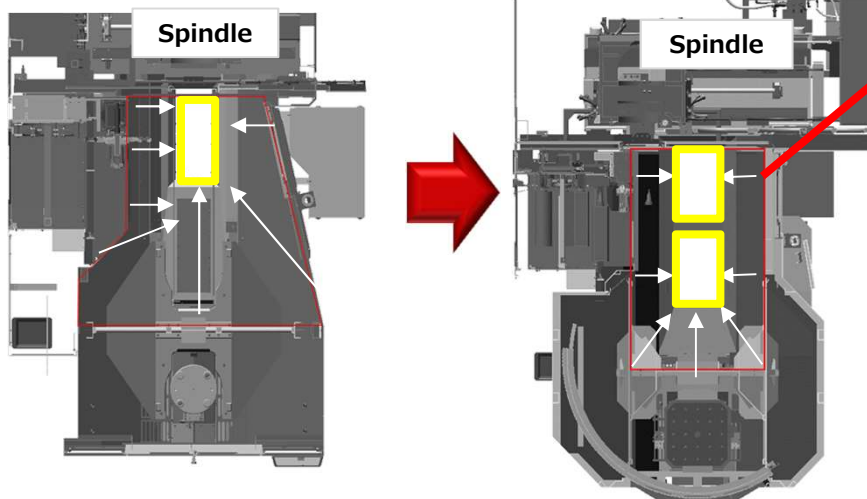
FH500J...34°

■ Section cover for APC



FH500J

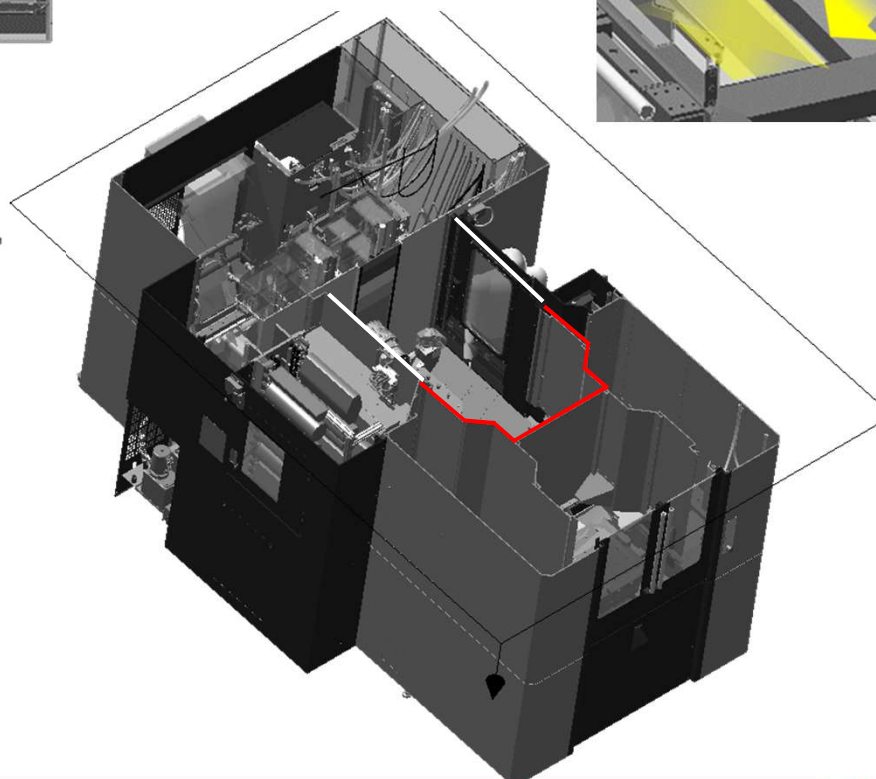
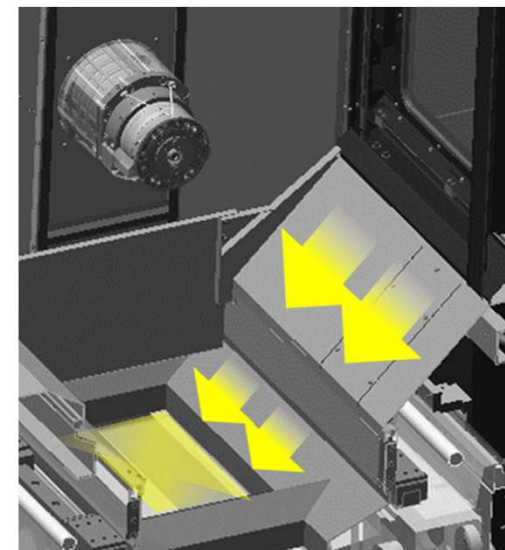
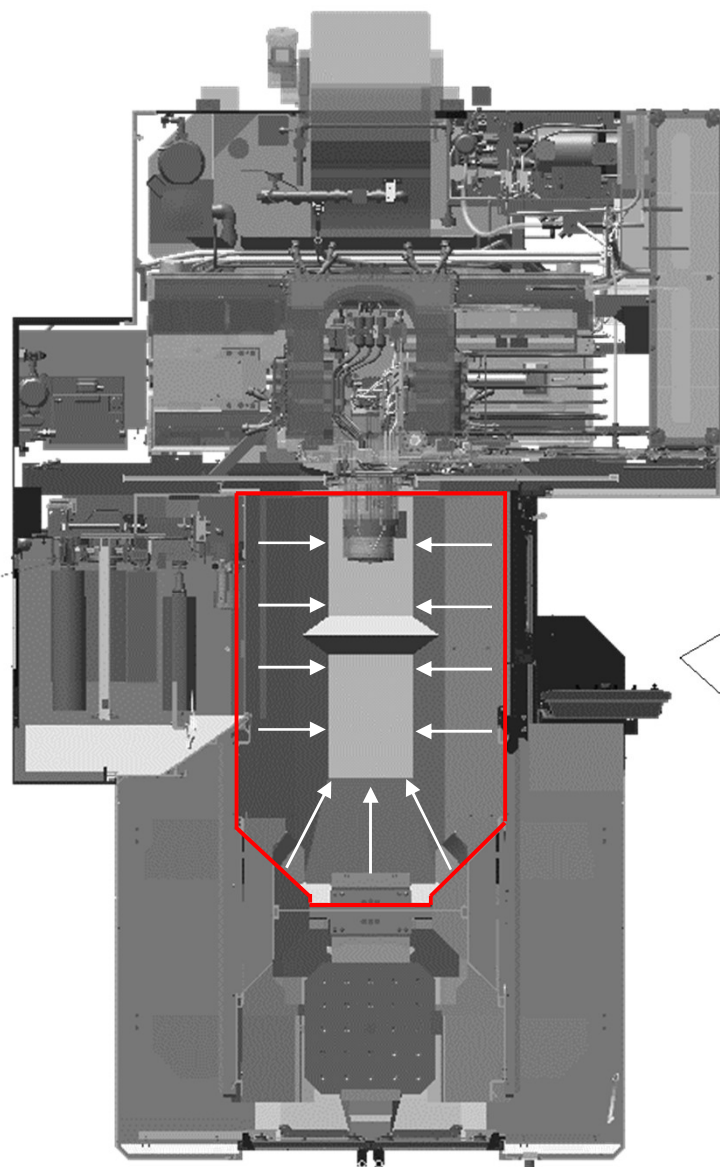
FH5000S-i
FH5500S-i
FH5500SX-i



You can remove the chips with more less time and coolant

Free from the chips

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Machine Specification



項目		単位	FH5000S-i #40			FH5500S-i #50			FH5500SX-i #50			
			Current Model FH500J4	New Model		Current Model FH500J5	New Model		Current Model FH550SX	New Model		
				Standard	Option		Standard	Option		Standard	Option	
TABLE	Pallet Size	mm	□500	□550	□500	□500	□550	□500	□550	←	□500	
	Pallet Height	mm	1,100	←	1,200	1,100	←	1,200	1,200	1,100	1,200	
	Max Work size	Dia.×Height	mm	Φ800×1,000	Φ900×1,100		Φ800×1,000	Φ900×1,100		Φ850×1,000	Φ900×1,100	
		Weight	kg	500 [700]	1,000		500 [700]	1,000		800	1,000	
	Index time (90°)	s	2.3	0.7	1.0	2.3	0.7	1.0	2.0	0.7	1.0	
Stroke	X	mm	730	800		730	900		750	900		
	Y	mm	730	800		730	800		800	←		
	Z	mm	850	880		850	880		850	880		
	SP Gage LN-PT center	mm	100~950	100~980		100~950	100~980		150~1,000	100~980		
	SP center-PT Surface	mm	50~780	50~850		50~780	50~850		100~900	50~850		
Feed Unit	Rapid	X	m/min	60	←	60	←	60	60	←		
		Y	m/min	60	←	60	←	60	60	←		
		Z	m/min	60	←	60	←	60	60	←		
	acceleration	X/Y/Z	G	1G/1G/1G	1G/1G/1.2G		1G/1G/1G	1G/1G/1~1.2G		0.7/0.7/1G	1G/1G/1~1.2G	
Spindle	Max Rotation Speed	min-1	15,000	←	15,000	15,000	←	6,000	15,000			
	Spindle Bearing Dia.	mm	80	85	70	90	120		110	120		
	Torque	N·m	303/119	←	55/26	303/119	←	600/353	530/239			
	Power	kW	37/22	←	30/18.5	37/22	←	30/22	37/30			
	Taper Size		#40	←	#40	#50	←	#50	←			
	Spindle Acceleration	s	1.7	←	0.5	2.5	←	-	5.3			
ATC	Max. Tool Number	本	60/119 (Chain Type)	←	180/240/320 (MMG)	60/121 (Chain Type)	←	180/240/320 (MMG)	60/121 (Chain Type)	←	180/240/320 (MMG)	
	Tool Size (Dia.×L)	mm	Φ75×470	Φ75×510		Φ120×470	Φ120×545		Φ120×545	←		
	Max. Tool Weight	kg	8	←		27	←		27	←		

Machine Layout FH5000S-i

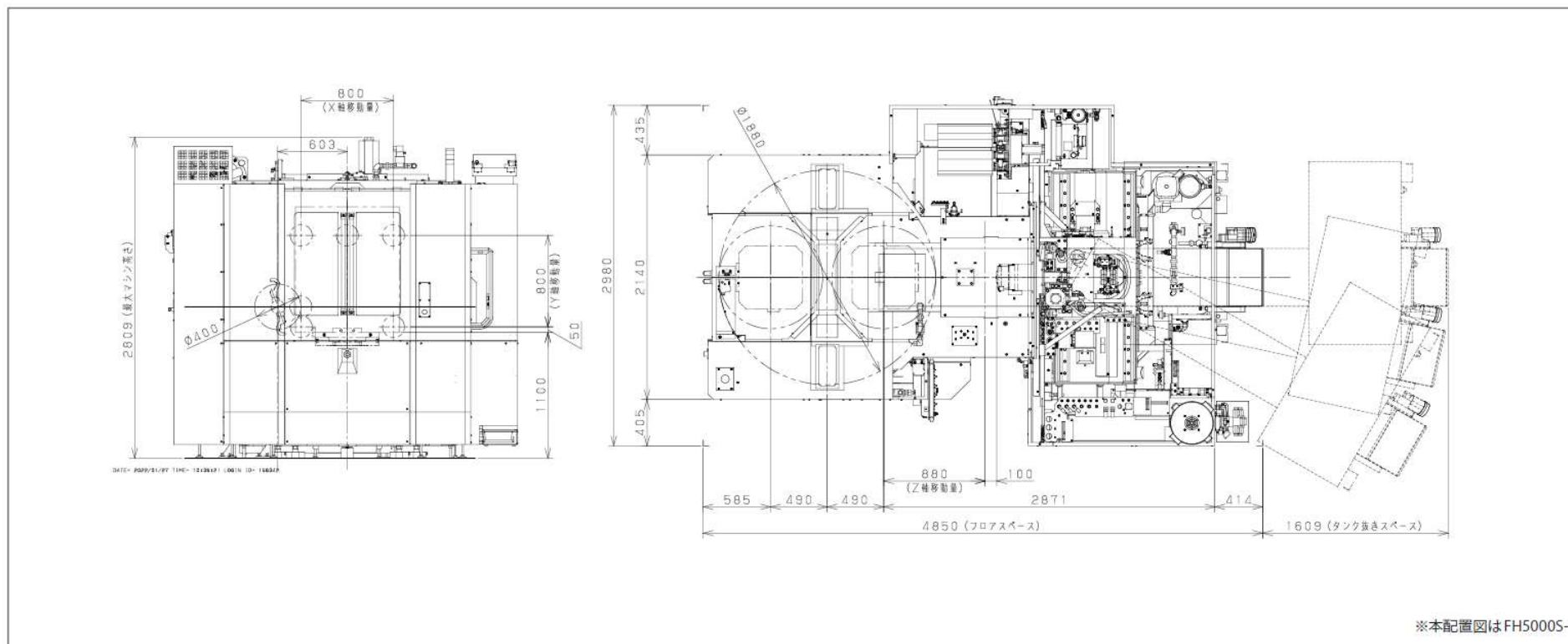
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■ FH5000S-i Layout #40 with 60 tools magazine

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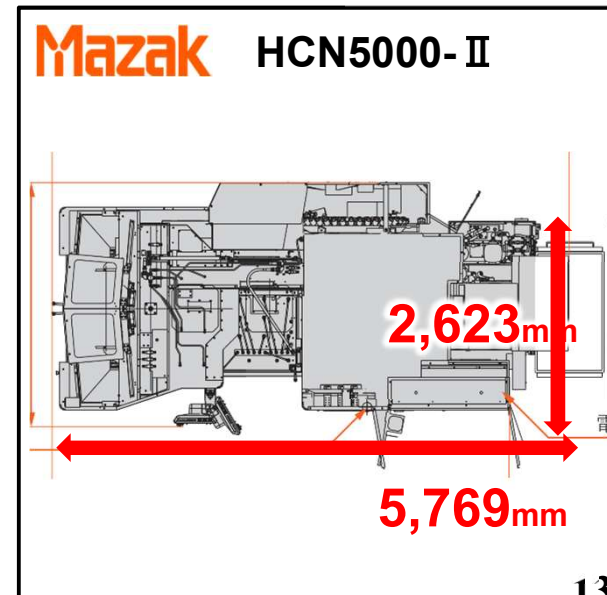
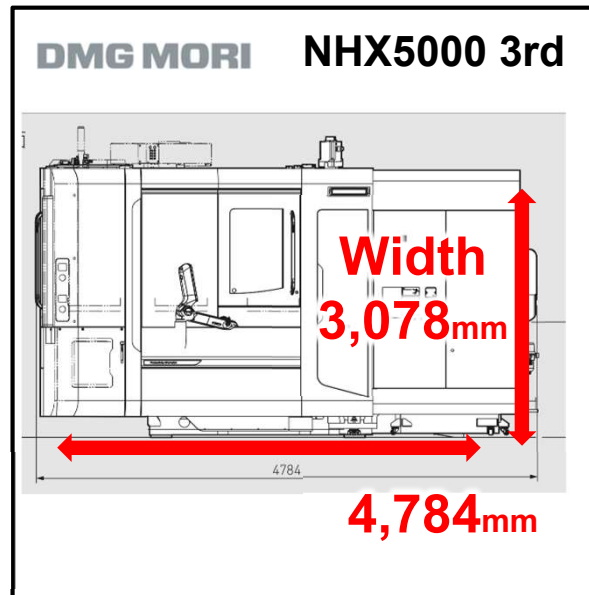
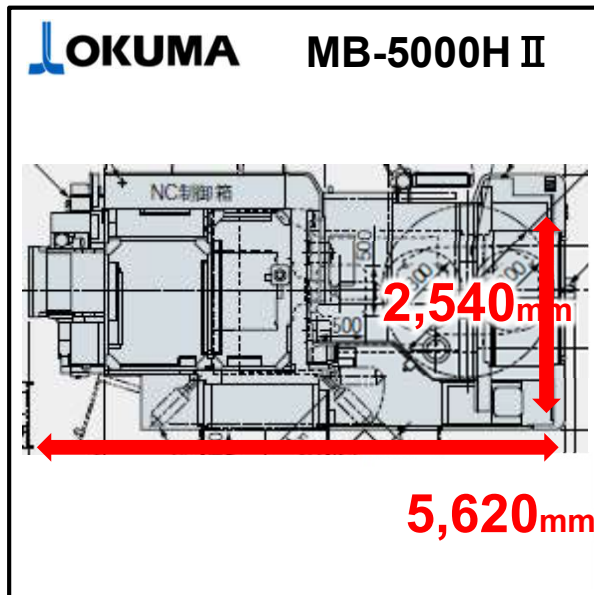
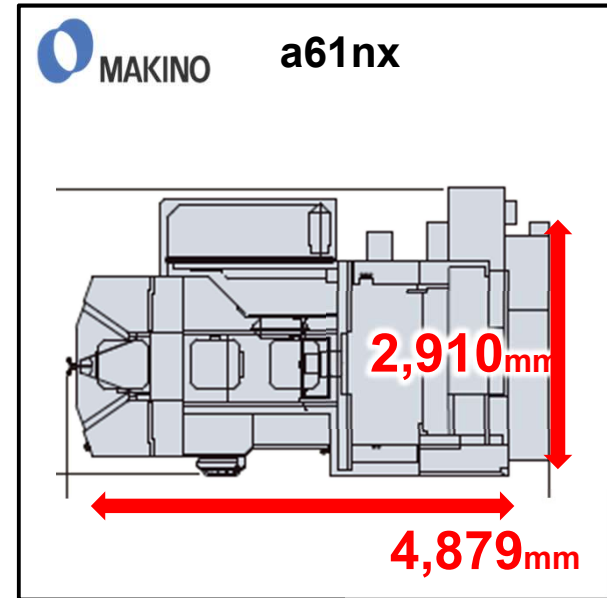
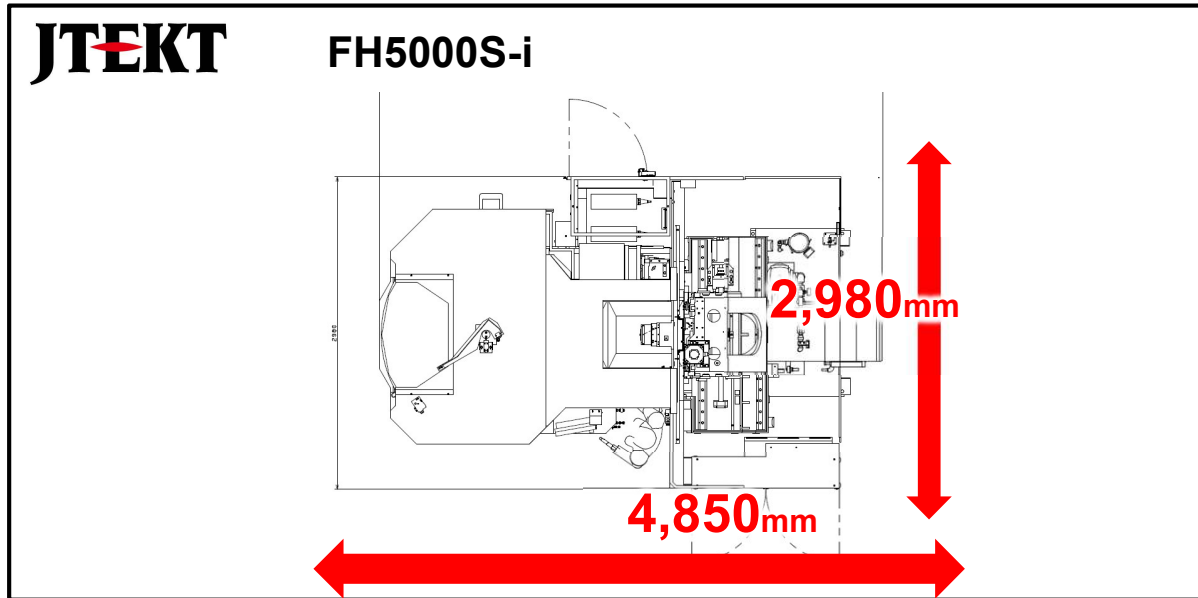
配置図 (単位 : mm)



Floor Space FH5000S-i

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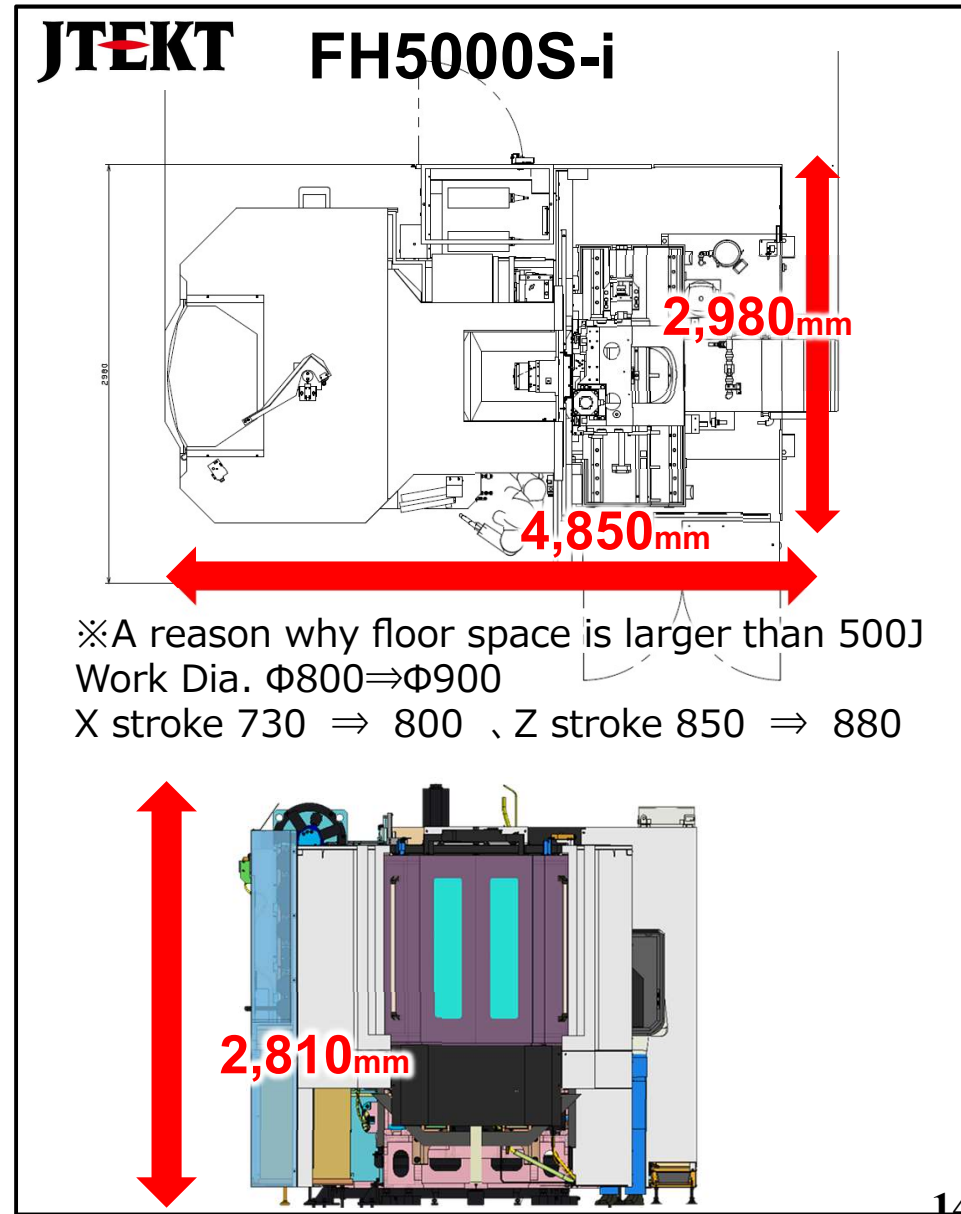
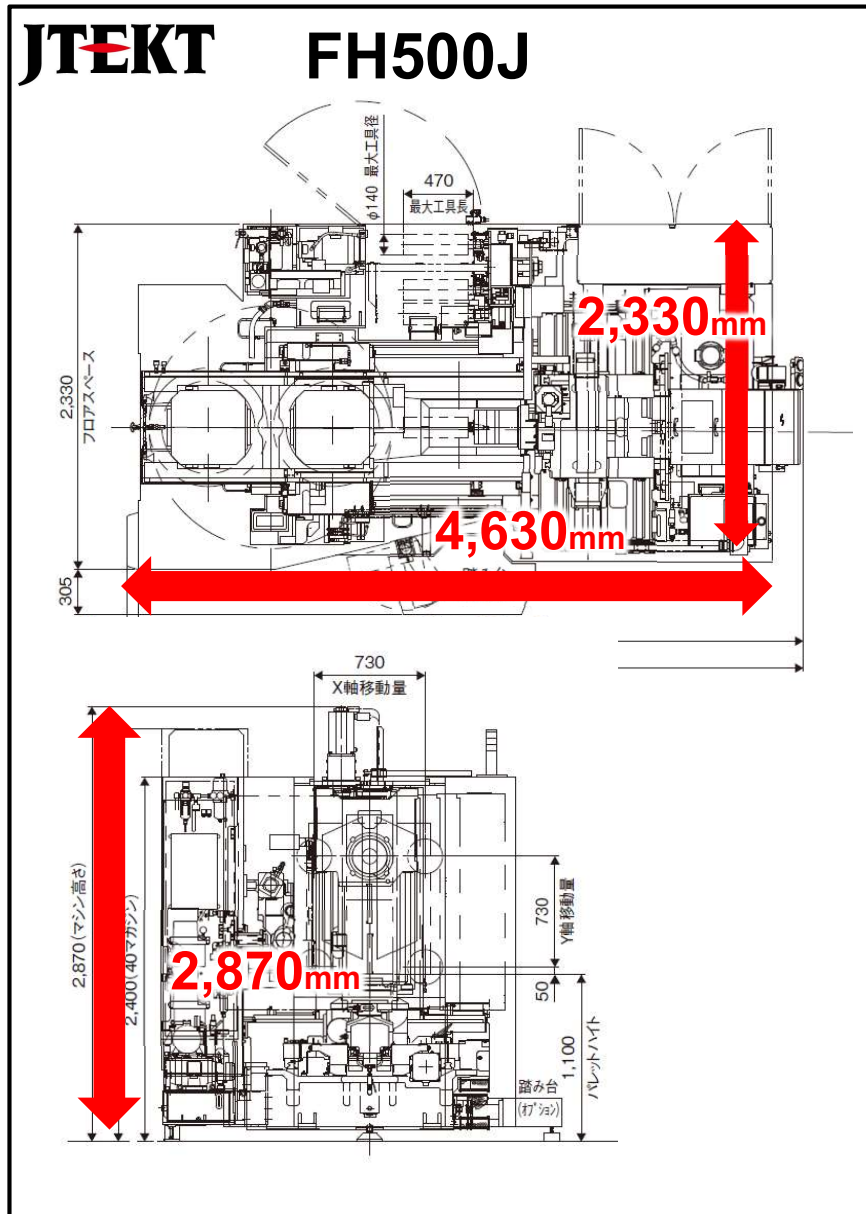
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Floor Space FH5000S-i

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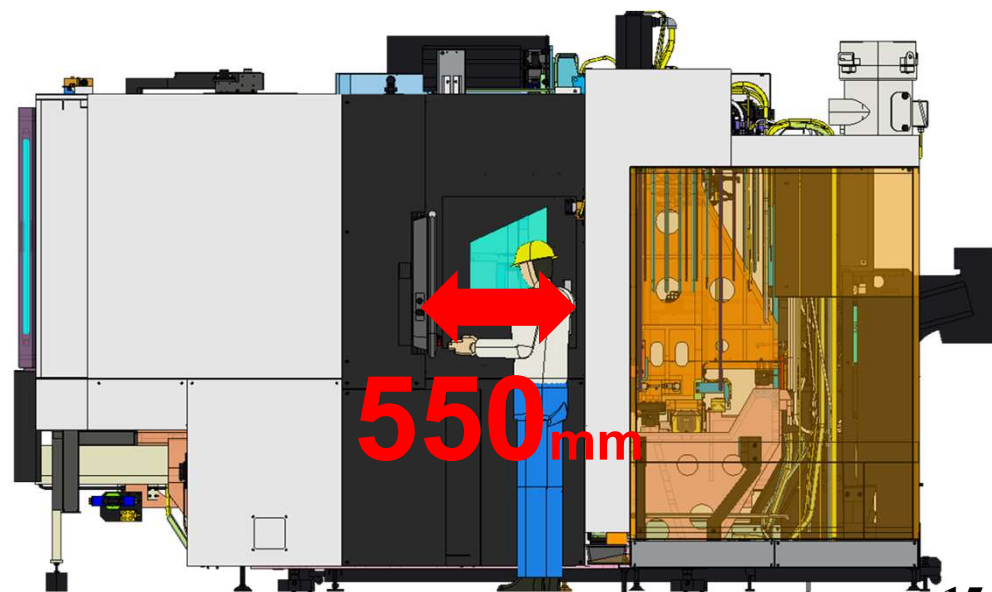
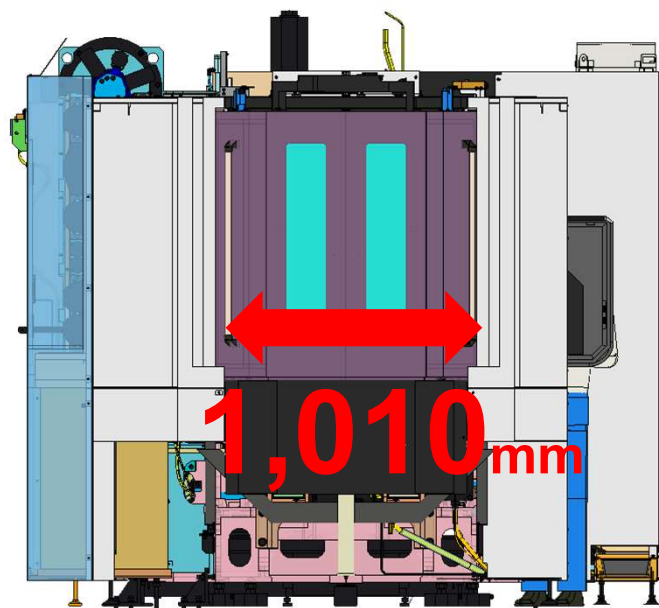


Door Open / Spindle Accessibility

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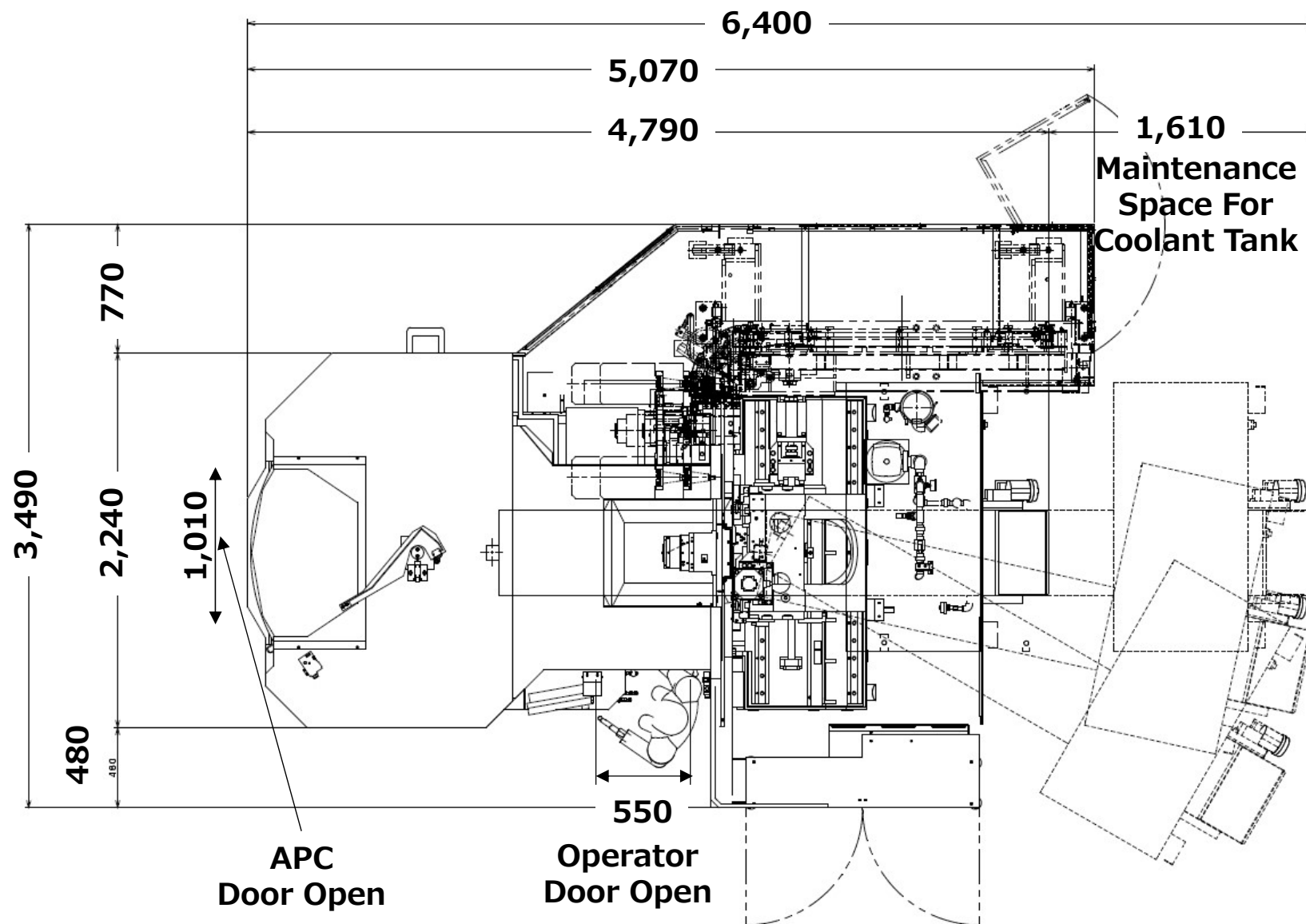
Machine Layout FH5500S/SX-i

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■ FH5500S/SX-i Layout #50 with 60 tools magazine

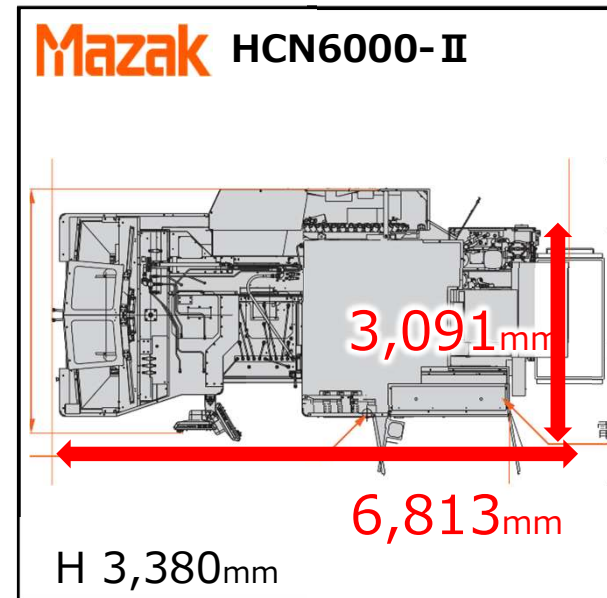
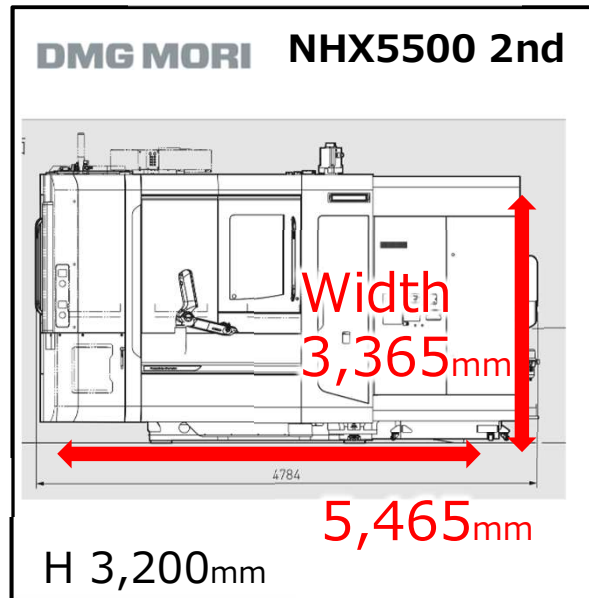
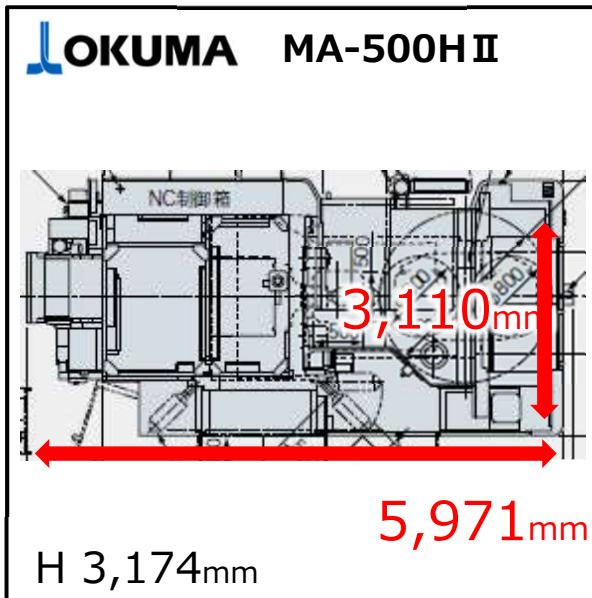
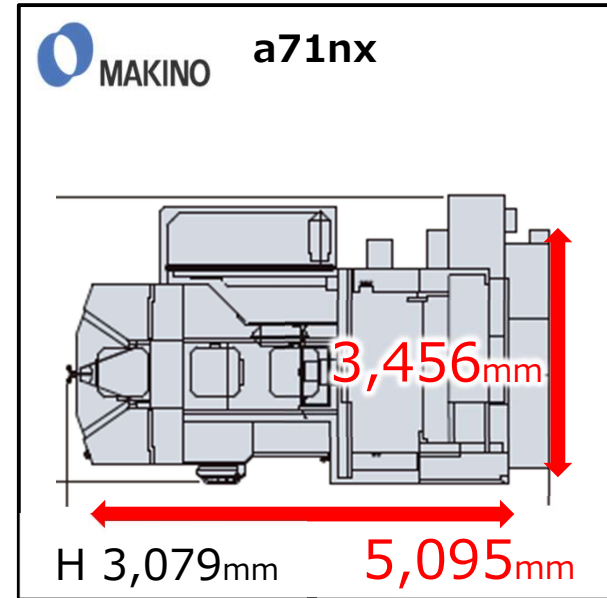
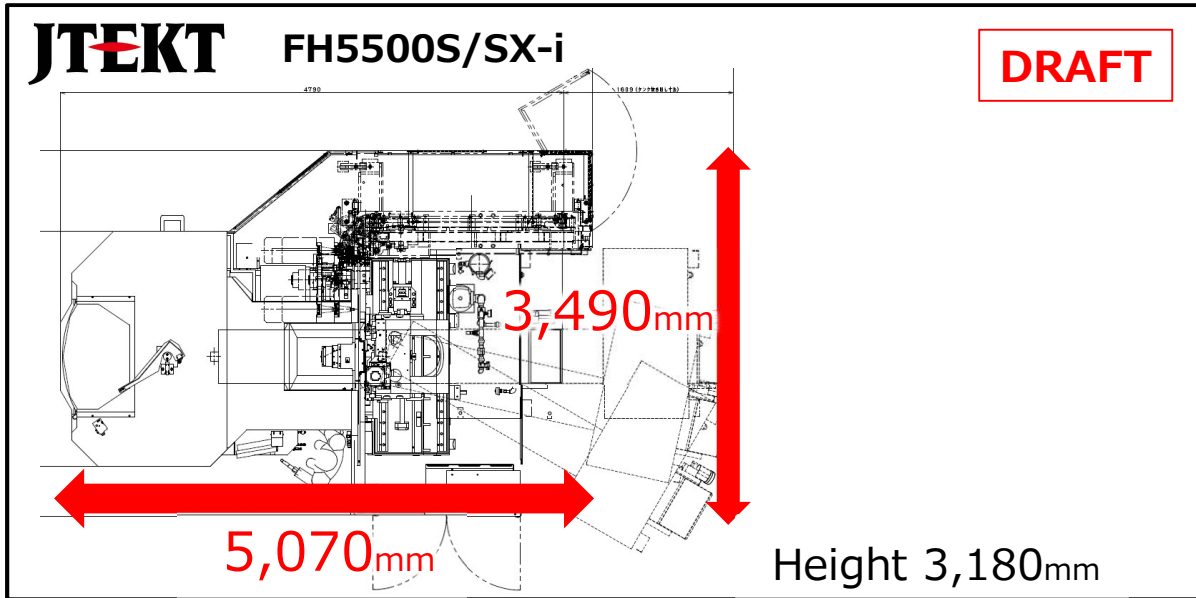
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Floor Space FH5500S/SX-i

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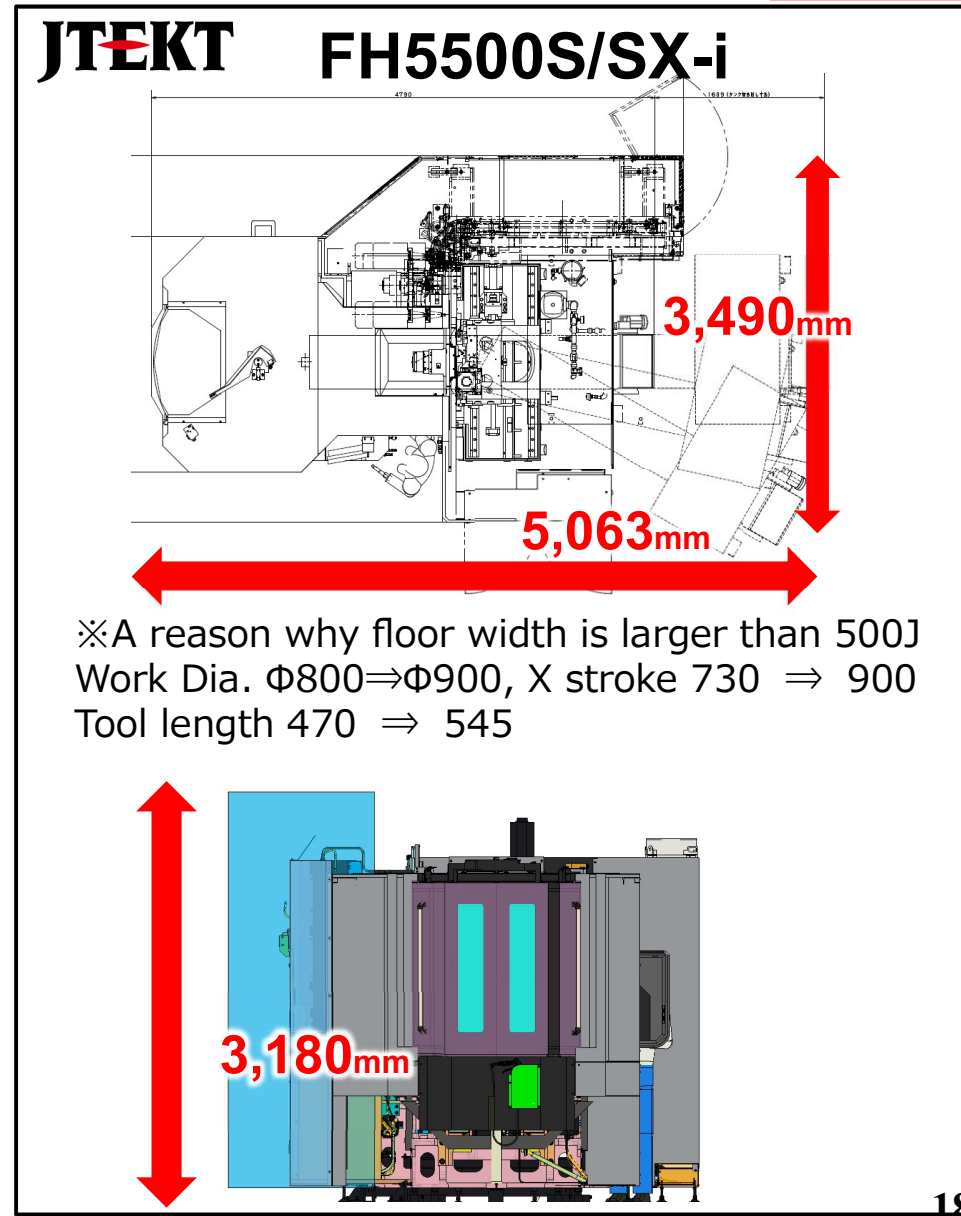
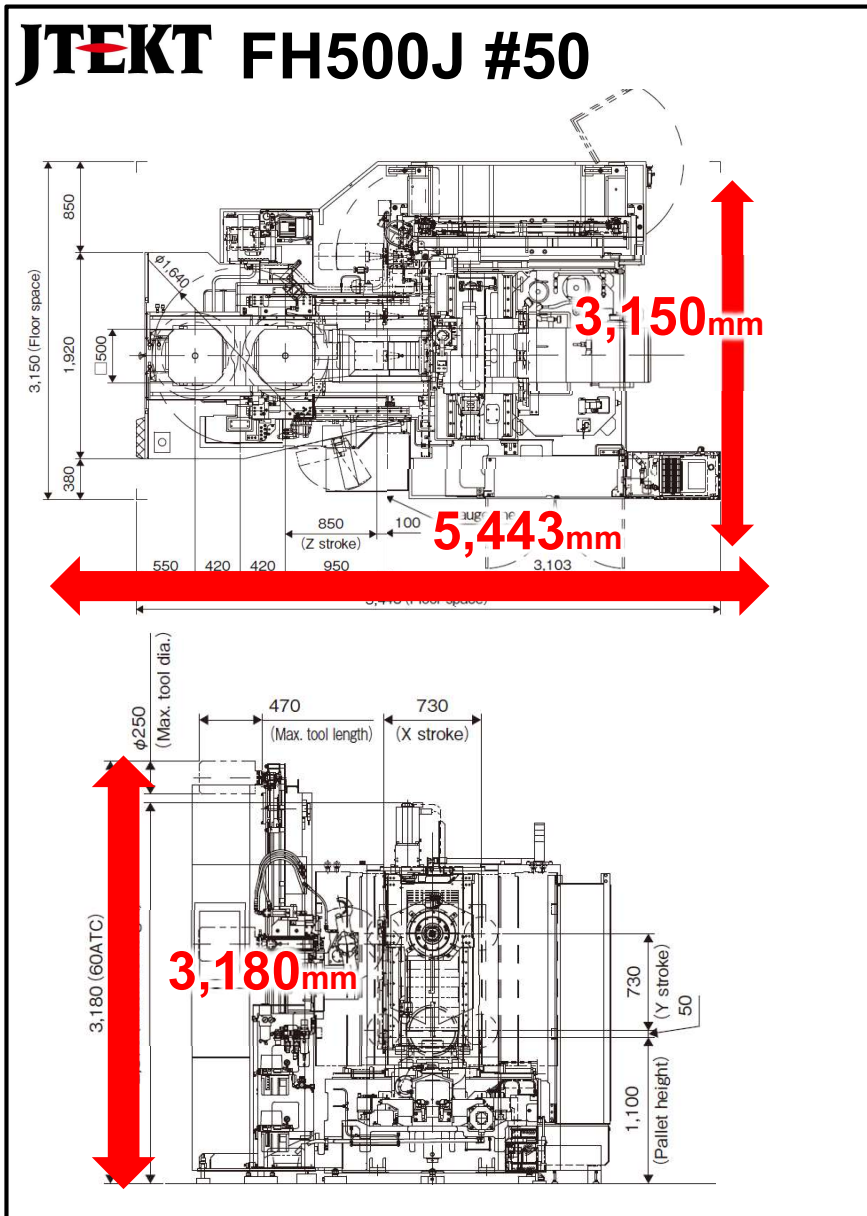


Floor Space FH5500S/SX-i

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□550 / □500 Pallet

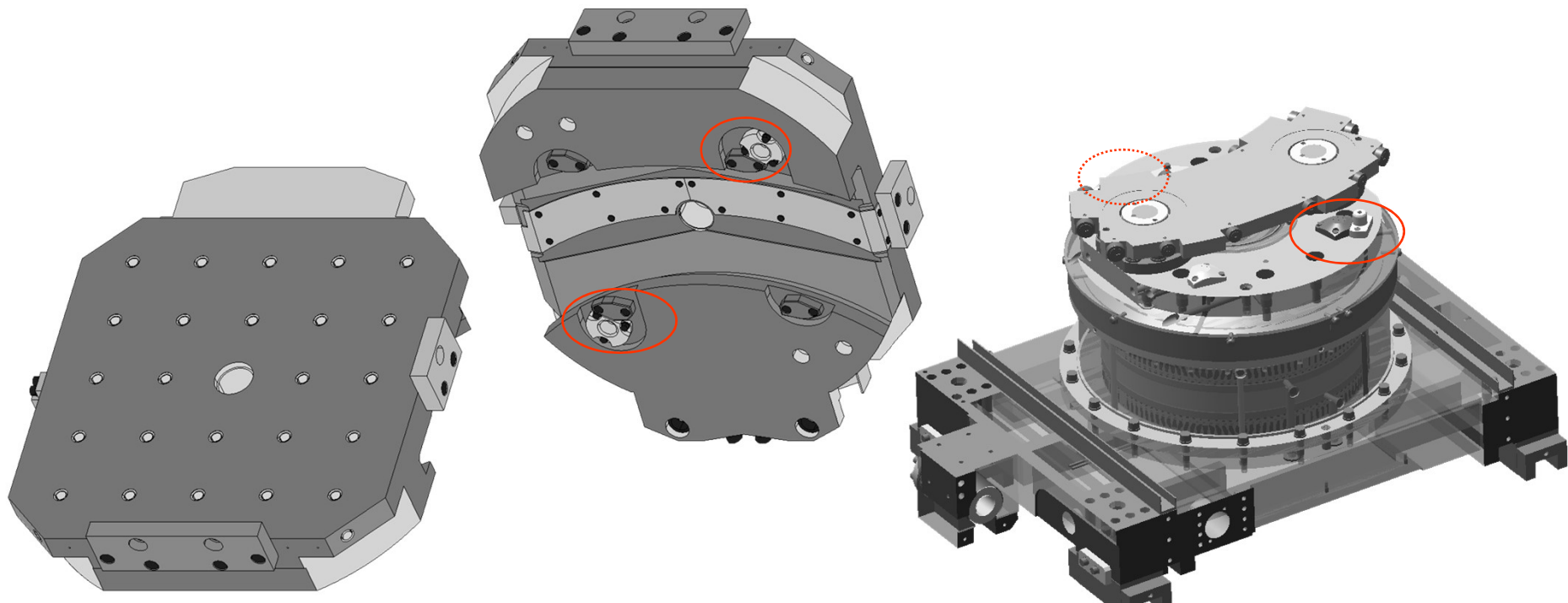
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Pallet Specification

- Pallet Clamp Type : **Seat & Locating Pins Type** (Same as FH550S/SX)
- Pallet Size : **□550mm (as standard)** □500mm (as option)

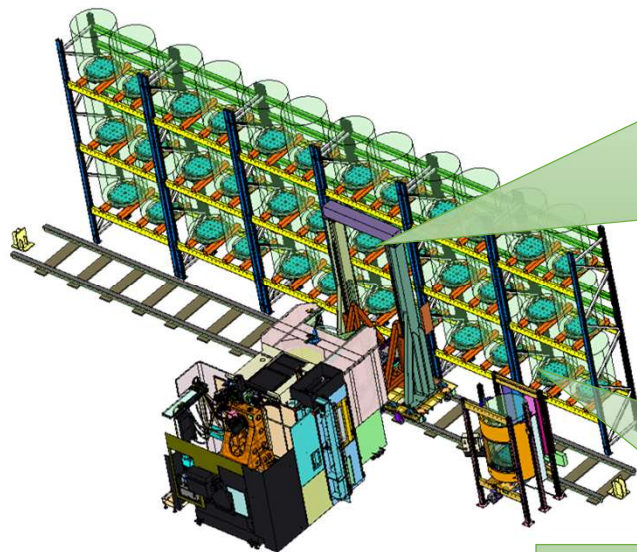
We can use both pallet sizes without modifications for APC and table.
(Some clamp parts should be changed but it is not big modification.)



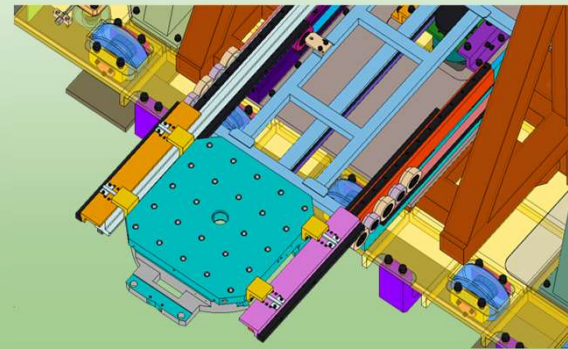
(Example) FMS/VPP Application

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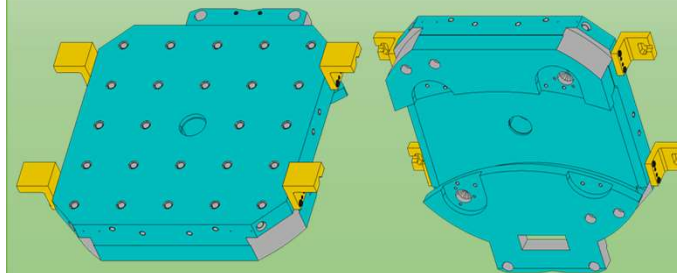
FMS System



**RGV type
Double Telescope**

**RGV Pallet type
Pallet with hooks**

**We can use EBA FMS and PARKSON VPP
without big modifications.**



**RGV Pallet type
(Seat & Locating Pin Type)
Pallet with hooks**

**※We can not add FH5000S-i machine to FH500J system,
because pallet clamp type is different.**