

FOUR-STAR

**CNC
FIXED DOUBLE COLUMNS
MACHINING CENTER FD & FDW series**

FOUR-STAR

**Excellent, Confident, Intellect, Service
Technological Cooperation with Japan**

www.fourstarcnc.com

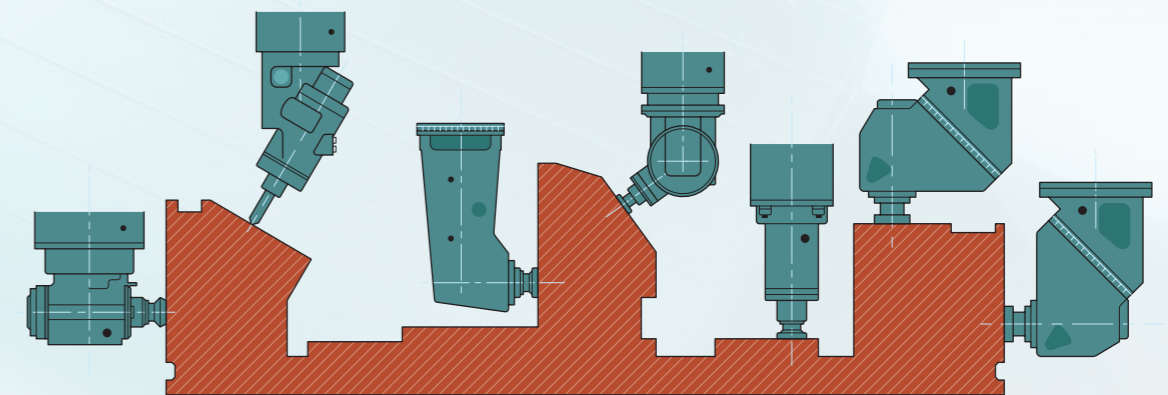
FDW



JAPAN AMT CO.,LTD.

AMT CO.,LTD. ガントリ総合加工機は中国、日本、アメリカの資本、技術を集める機械メーカーが開発した先端的な技術を取り込んだ機械です。機械の設計、製造技術の提供は日本の大手機械メーカーにて数十年勤めた技術チームが担当とし、過去の設計の理念に基づいて、究極的な高精度、高品質の製品を同時に世界中のお客様に提供いたします。

President
萩野 一郎



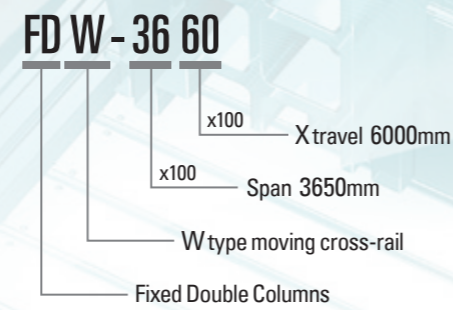
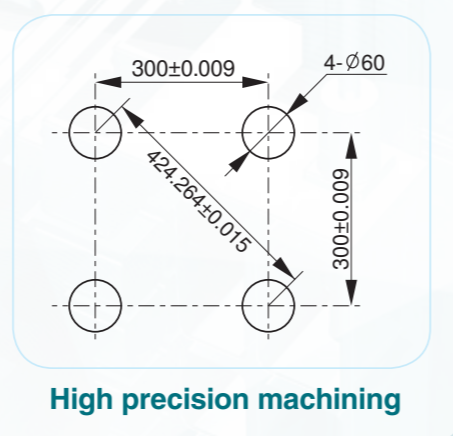
CNC
MACHINERY SALES AUSTRALIA

FIXED DOUBLE COLUMNS MACHINING CENTER



FDW Moving Cross-Rail TRAVEL

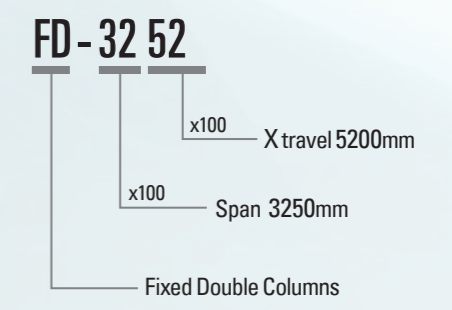
X-travel : 3200~6000mm
Y-travel : 2400/2800/3200/3600/4200mm
Z-travel : 800 (1100/1400)mm
W-travel : 1000 (1500/2000)mm



MOVING CROSS-RAIL
W travel

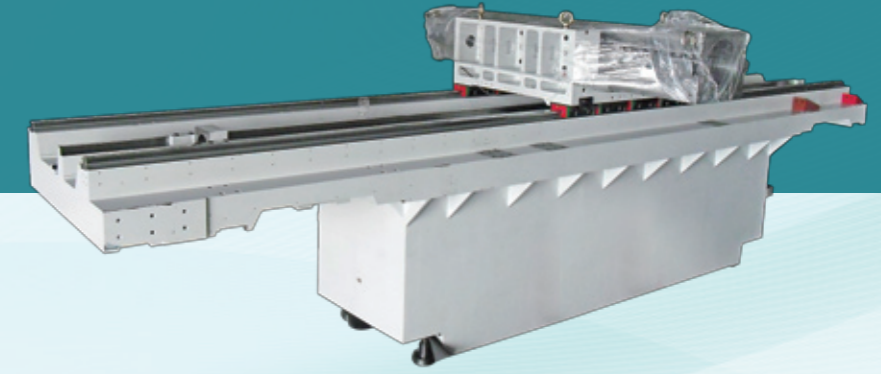


Semi-enclosed splash guard ▼



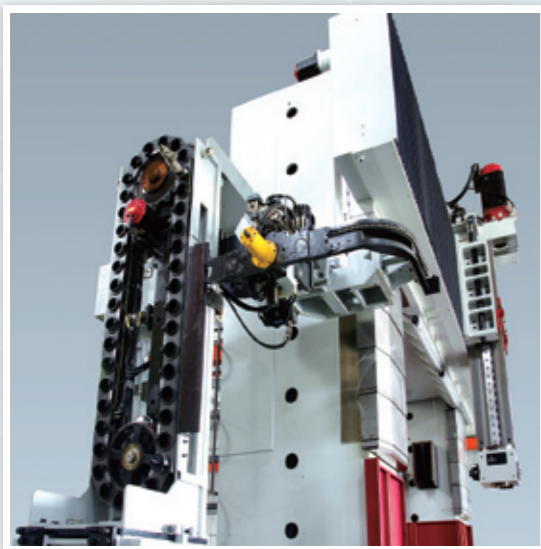
FD TRAVEL

X-travel : 2200~6000mm
Y-travel : 1800/2100/2400/2800/3200/3600/4200mm
Z-travel : 800 (1100/1400)mm



▲ Cross-rail box-in-box unity cast-iron frame

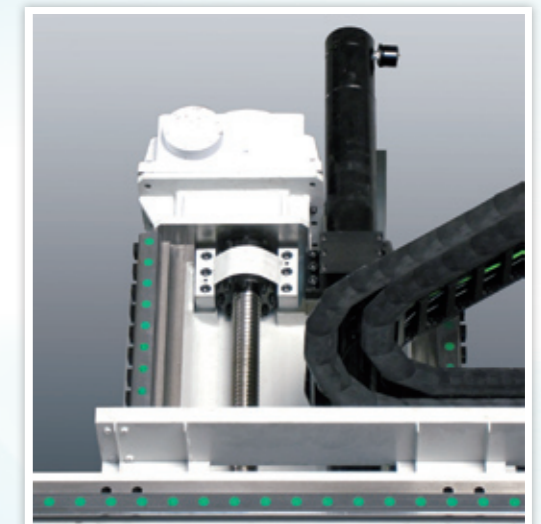
Features



▲ Free position ATC



▲ High rigidity enclosure frame RAM



▲ Synchronous servo control



▲ Enlarge column base



▲ Three linear guideways column

Structural Design

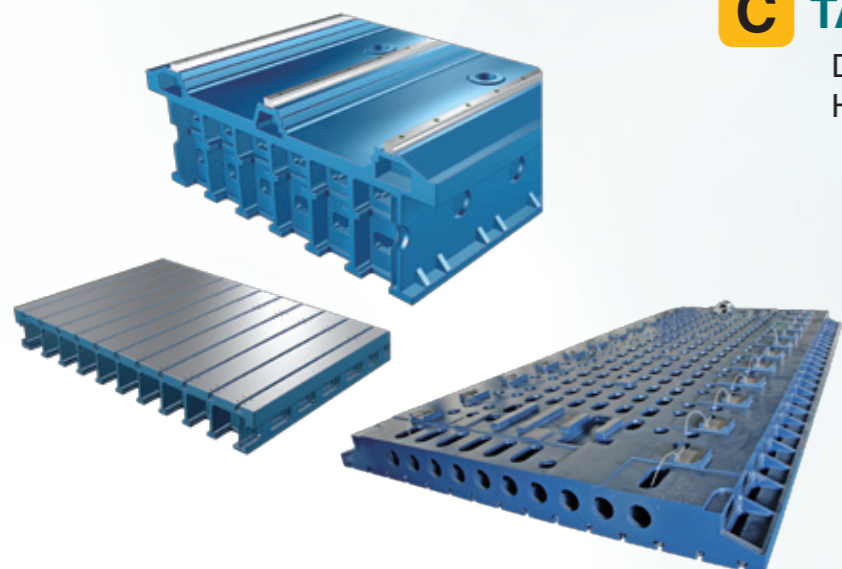
A SPINDLE BOX (RAM)

Optimum cross-section 400x450mm² (550x550,650x650)
Interior loop ribs reinforcement, rigid roller guide way



B BASE

Box-in-box unity frame
FD24~FD36 three guideways
Interior loop ribs reinforcement



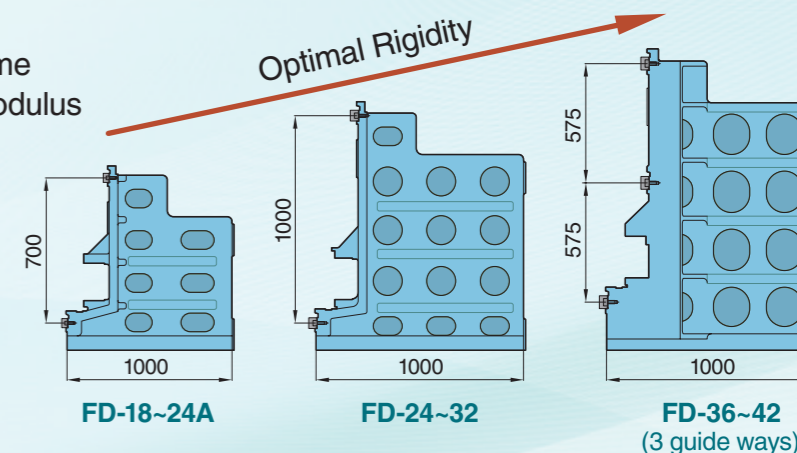
C TABLE

Double layer loop frame
Heavy duty loading



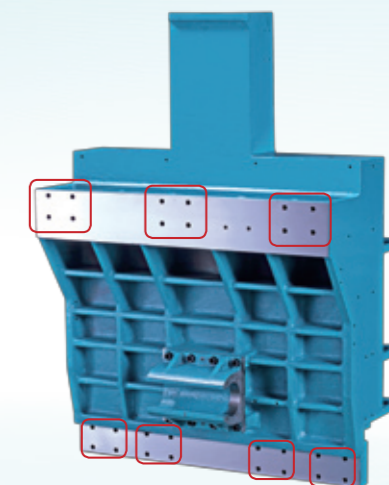
D CROSS BEAM

Box-in-box unity frame
Optimum section modulus



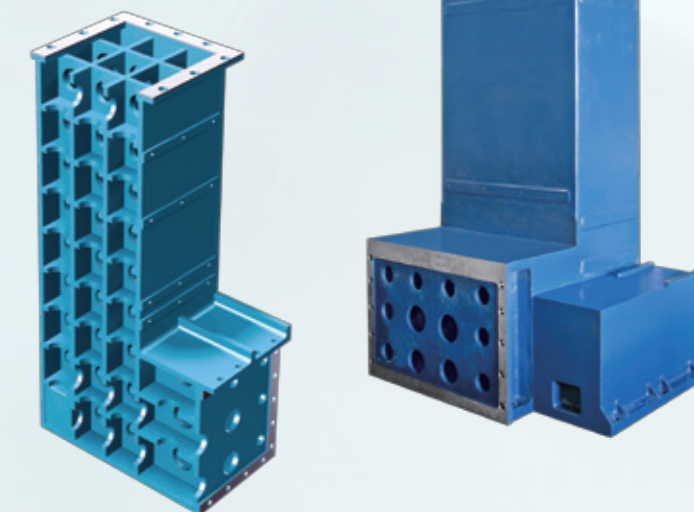
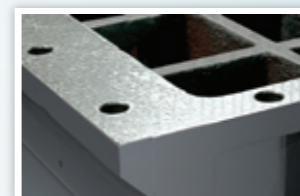
E SADDLE

3 top / 4 bottom support blocks
Unity frame with reinforced ribs
Stair style structural design

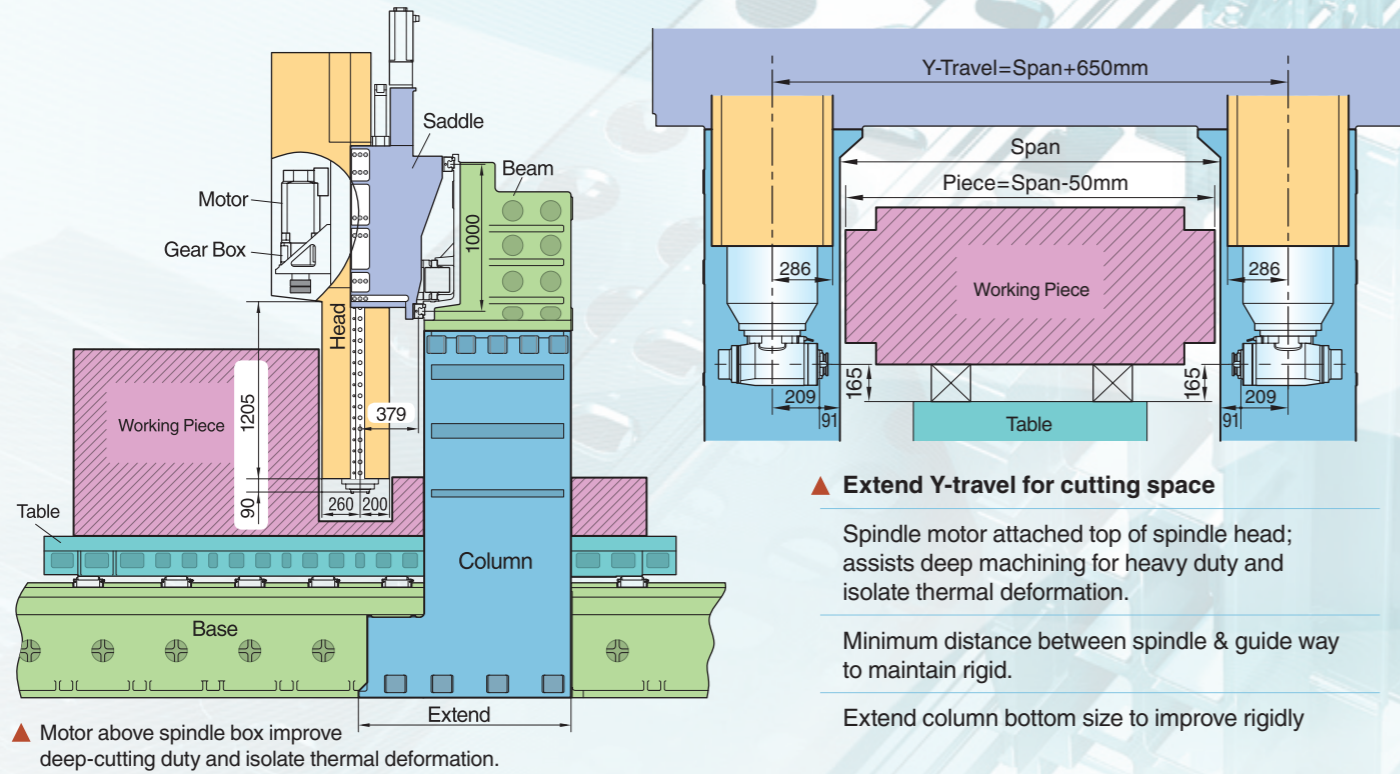


F COLUMN

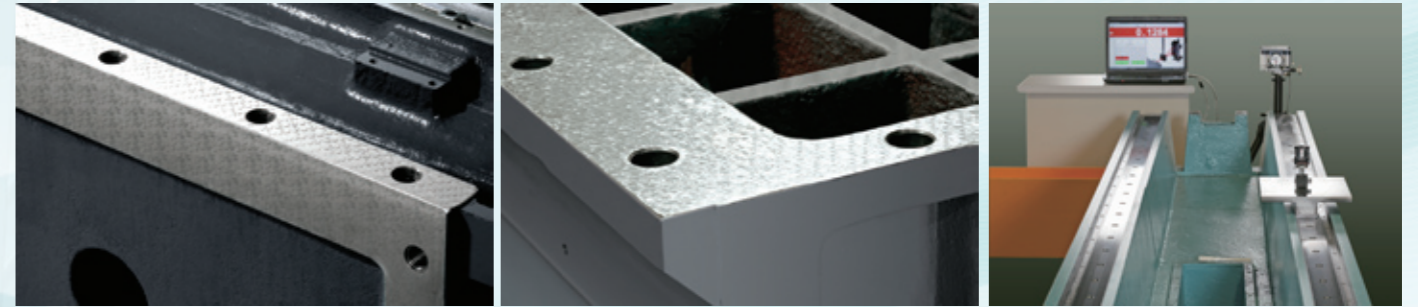
High damping box structure
Hand scraped attach surfaces
Extend bottom size to improve rigidly



Enlarge Cutting Space



Quality Assurance

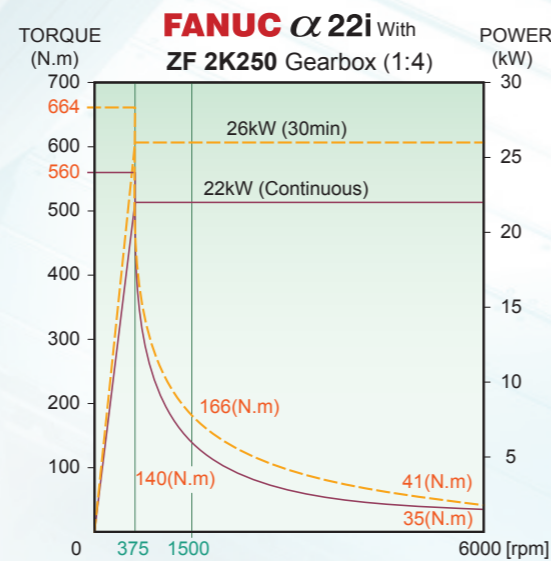
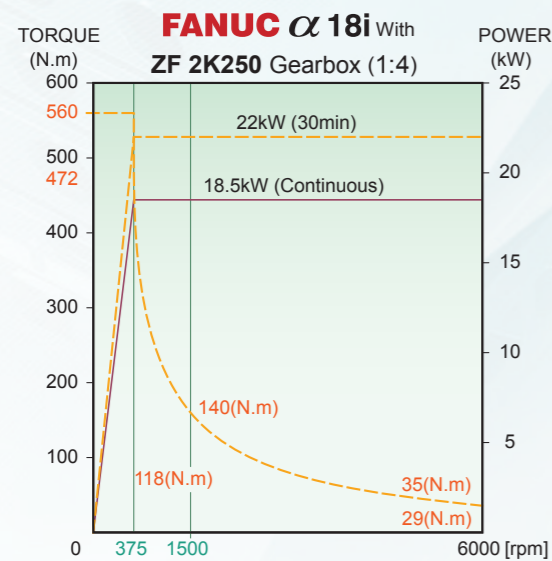


All attached surfaces of base by precision hand-scraped.

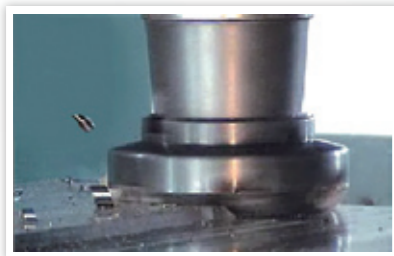
All attached surfaces of columns by precision hand-scraped.

Accuracy and Precision assembly

Rigidity Capability



Cutting Record (from FD-1832)

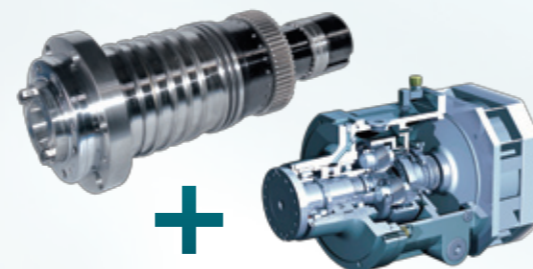


Face cutting S45C
 Ø150mm, 350rpm, t=8mm
 400mm/min, SP load 70% x load 28%,
 RMS 12s



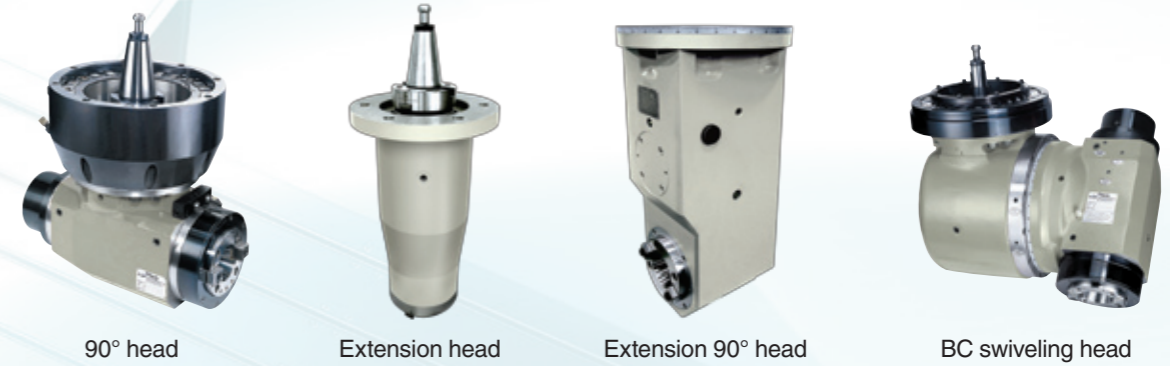
Drilling S45C
 Ø48mm, 1200rpm
 30mm/min, Z load 80%,
 tolerance +0.1mm

High efficiency spindle
 P4 level precision ball bearing is oil chilled to reduce thermal deformation.



Two speed ZF 2K 250 gearbox
 Full enclosure, high performance.

Special Head (Exchange model)



Model	Automatic	Semi-Automatic	Manual
Head exchange	Auto	Manual (hydraulic)	Manual (bolts)
Head indexed	Auto. (5°/15°)	Auto. (5°/15°)	Manual (5°/15°)
Tool clamped	Booster	Booster	Bolt

Auto head exchanger (AHC)

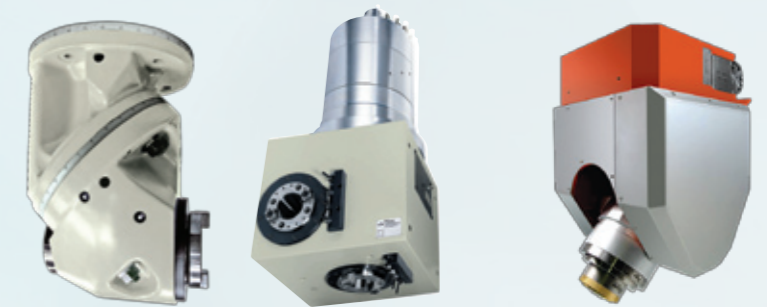


With multiple auto. model heads

Not exchange model head

5 Face head (Indexed)

5 Axis head (Simultaneous)



Universal head

5 Face head

AC5K

FD Fixed Double Columns Machining Center

Item	Unit	FD-18 Series					FD-21 Series			FD-24A Series		
Model	FD-	1822	1827	1832	1842	1852	2132	2142	2152	2432A	2442A	2452A
Distance between columns	mm	1850					2150			2450		
Table size	Length	2300	2800	3300	4300	5300	3300	4300	5300	3300	4300	5300
	Width	1500					1800			2000		
T-slot	Width x NO x Pitch	22 x 9 x 150			22 x 5 x 250		22 x 7 x 250			22 x 7 x 250		
Travel	X-axis	2200	2700	3200	4200	5200	3200	4200	5200	3200	4200	5200
	Y-axis	1800					2100			2400		
	Z-axis	800 (1100)										
Spindle	Nose to table	200~1000 (200~1300)				380~1180 (200~1300)						
	Center to column	427 (435)										
	Taper / Speed / Power	BT50 - 6,000 - 18.5 / 22										
X,Y,Z feedrate	Cutting	5~8000										
	Rapid	15 / 15 / 12					10 / 10 / 10					
Accuracy	mm	Positioning ±0.005 / 300 ; Repeatability ±0.003										
ATC & tool magazine	Capacity / Dia	24pcs / Max. dia Ø110(full tools) ; Ø200(Adjacent pocket empty)										
	Max tool weight / Length	18kg / 350mm										
	Tool selection	Take shortest direction / M24 P3.0-45°										
Requirement	Power / Pneumatic	40~50 KVA / 6.5 kg/cm²										
Maximum Table Load	ton	10			11		12			13		
Machine size	Length	6400	7400	8400	10400	12400	8400	10400	12400	8400	10400	12400
	Width	4550					4850			5150		
	Height	4570				4850						
Machine Weight (app.)	ton	23	26	28	35	40	30	37	42	32	39	45

FD-24 Series				FD-28 Series				FD-32 Series			FD-36 Series			FD-42 Series		
2432	2442	2452	2460	2832	2842	2852	2860	3242	3252	3260	3642	3652	3660	4242	4252	4260
2450				2850				3250			3650			4250		
3300	4300	5300	6200	3300	4300	5300	6200	4300	5300	6200	4300	5300	6200	4300	5300	6200
2000				2200				2600			3000					
28 x 11 x 180				28 x 13 x 180				28 x 15 x 180			28 x 15 x 200					
3200	4200	5200	6000	3200	4200	5200	6000	4200	5200	6000	4200	5200	6000	4200	5200	6000
2400				2800				3200			3600			4200		
800 (1100)											1100 (1400)					
300~1100 (300~1400)											300~1400 (300~1700)					
435											473					
BT50 - 6,000 - 22 / 26											BT50 - 6,000 - 22 / 26					
5~5000											5~5000					
8 / 8 / 10											6 / 6 / 10					
Positioning ±0.005 / 300 ; Repeatability ±0.003																
24pcs / Max. dia Ø110(full tools) ; Ø200(Adjacent pocket empty)																
18kg / 350mm																
Take shortest direction / M24 P3.0-45°																
50~60 KVA / 6.5 kg/cm²																
15				17				20			22					
9400	11400	13400	15400	9400	11400	13400	15400	11400	13400	15400	11400	13400	15400	11400	13400	15400
5600				6000				6400			6800			7200		
4700											5600					
42	47	53	60	45	50	56	63	54	60	67	57	63	70	58	64	71

FDW W-type Double Columns Machining Center

Item	Unit	FDW-24 Series				FDW-28 Series				FDW-32 Series		
Model	FDW-	2432	2442	2452	2460	2832	2842	2852	2860	3242	3252	3260
Distance between columns	mm	2450				2850				3250		
Table size	Length	3300	4300	5300	6200	3300	4300	5300	6200	4300	5300	6200
	Width	2000				2200				2600		
T-slot	Width x NO x Pitch	28 x 11 x 180				28 x 13 x 180				28 x 15 x 180		
Travel	X-axis	3200	4200	5200	6000	3200	4200	5200	6000	4200	5200	6000
	Y-axis	2400				2800				3200		
	Z-axis	800 (1100)										
	W-axis	1000 (1500) Free position located										
Spindle	Nose to table	200 ~ W+Z										
	Taper / Speed / Power	BT50 - 6,000 - 22 / 26										
Feedrate	X,Y,Z Cutting	5~5000										
	X/Y/Z/W Rapid	8 / 8 / 10 / 1										
Accuracy	mm	Positioning ±0.005 / 300 ; Repeatability ±0.003 ; Cross-rail slope 0.01/1000										
ATC & tool magazine	Capacity / Dia	32pcs / Max. dia Ø125(full tools) ; Ø220(Adjacent pocket empty)										
	Max tool weight / Length	18kg / 350mm										
	Tool selection / Pull stud	Free position take shortest direction / M24 P3.0-45°										
Requirement	Power / Pneumatic	60~70 KVA / 6.5 kg/cm²										
Maximum Table Load	ton	15				17				20		
Machine size	Length	9400	11400	13400	15400	9400	11400	13400	15400	11400	13400	15400
	Width	6000				6500				7000		
	Height	6000 (6500)										
Machine Weight (app.)	ton	45	50	56	63	48	53	59	66	57	63	70

FDW-36 Series			FDW-42 Series		
3642	3652	3660	4242	4252	4260
3650			4250		
4300	5300	6200	4300	5300	6200
3000					
28 x 17 x 180					
4200	5200	6000	4200	5200	6000
3600			4200		
1100 (1400)					
1000 (1500 / 2000) Free position located					
200 ~ W+Z					
BT50 - 6,000 - 22 / 26					
5~5000					
6 / 6 / 10 / 1					
18kg / 350mm					
Free position take shortest direction / M24 P3.0-45°					
60~70 KVA / 6.5 kg/cm²					
22					
11400	13400	15400	11400	13400	15400
7500			8000		
6500 (7000)					
61	67	74	63	69	76

Standard Accessories

- Spindle cooler
- Spindle air blast
- Cutting coolant system
- Auto lubrication system
- Rigid tapping
- Electric cabinet heat exchanger
- Program end alarm lamp
- RS-232 interface
- ZF-DUOPLAN 2K250 H/L gearbox
- Air/water cleaning equipment.
- Twin spirl type chip remover
- Metal belt chip conveyor with cart
- Operator's manual
- Tool kit
- Arm type ATC 24/32 tools magazine
- ATC auto door
- Working lamp
- Foot switch for tool away
- Semi-enclosed splash guard (no top) (FD)
- FANUC 0iMD+8.4"LCD (FD series)
- FANUC 31iMB+10.4"LCD (FDW series)
- W axis linear scale 2 pcs (FDW series)
- Leveling screw + foundation bolts

Optional Accessories

- High pressure coolant thru spindle (CTS)
- Coolant thru tool holder device
- Tool length measurement
- Auto work piece measurement
- X,Y,Z-axis linear scale
- Heighten block (sub-table)
- Oil skimmer
- CNC rotary (index) table
- 90° head (AAI, AAC, ATC)
- BC swiveling head (AAI, AAC, ATC)
- Universal head (AAI, AAC, ATC)
- 90° extened head (AAI, AAC)
- Extened head 500mm (AAC)
- Auto head changer (AHC)
- 5 Axis simultaneous head
- DATA SERVER
- AI-NANO HPCC (for 31iMB)
- Spindle motor 30/37KW+ZF 2K-300
- High speed spindle 8000~24000 rpm
- Tool Magazine 32, 40, 60, 80 pcs
- Fully enclosure splash guard (FD series)
- Controller SIEMENS / HEIDENHAIN
- Transformer 40~70 KVA