

VF-5A SERIES Vertical High Efficiency 5-axis Machining Center

ITEM	VF-500-5A	VF-700-5A-2P
Travel		
X axis travel	500 mm	700 mm
Y axis travel	380 mm	400 mm
Z axis travel	400 mm	400 mm
B axis tilting movement	-20° ~ +115°	-30° ~ +120°
C axis rotating movement	360°	360°
C axis max. travel	Ø 170 mm	Ø 170 mm (Opt. : Ø 210 mm)
Rotation speed "B"	50 rpm	22.2 rpm
Rotation speed "C"	100 rpm	25 rpm
Table Size	Ø 170 mm	Ø 285 mm (Opt. : Ø310 mm)
Max. table loading	30 kg	30 kg (per pallet)
Spindle		
Spindle nose to table	80~480 mm	
Spindle center to "Z" cover	640 mm	
Spindle taper	BT30 (opt. DIN30/ ISO30)	
Spindle speed	Direct type: 12,000rpm (opt. 15,000/20,000rpm) Built-in type: 24,000rpm	
Spindle dia.	50 mm	
Feed		
Rapid feed (X/Y/Z)	36000/36000/36000 mm/min	
Cutting feed (X/Y/Z)	10000 mm / min	
Z axis counter weight	NA	
Ballscrew dia. & pitch	Ø32 mm & P12/P12/P12	
Guide way type	Linear guide way W25/25/30	
Accuracy VDI 3441(JIS B6338)		
X/Y/Z Positioning accuracy	P0.014 mm (± 0.004 / 300 mm)	
X/Y/Z Repeatability	PS0.010 mm (± 0.003 mm)	
"C" axis Repeatability	4"	6"
"B" axis Repeatability	8"	8"
ATC System		
Tool shank	BT30	
Tool capacity	20T	
Tool exchange time	T-T 1 sec, C-C 2.5 sec	
Max. tool diameter (with adj. tool)	60 mm	
Max. tool diameter (w/o adj. tool)	100 mm	
Max. tool length	200 mm	
Max. tool weight	3 kg	
Motor		
Spindle motor	Direct(F): 3.7/5.6 kW (5/7.5HP) ; Built-in(F): 4.6/5.3 kW (6.1/7HP)	
Servo motor X/Y/Z	1.5/1.5/2.0 kW	
Other		
Power required	15 kVA	
Air pressure required	5~6 kg/cm ² ; 200 L/min	
Machine dimension W/D/H	1624x2250x2530 mm	2100x2400x2370 mm
Machine weight	2800 kg	3200 kg

※Specification and design characteristics subject to change without prior notice.

Standard Accessories

1. 12000 rpm Direct-driven spindle (Mitsubishi)
2. 15000 rpm Direct-driven spindle (Fanuc, Siemens)
3. ATC system (arm type 20T)
4. Coolant system
5. Powerful chip flush system
6. Work lamp
7. Indicating light
8. Spindle air blast
9. Auto lubrication system
10. Fully enclosed splash guard
11. Auto power off (M30)
12. RS 232 Interface
13. Heat exchanger for elec. cabinet
14. Rigid tapping
15. Tool box with adjustment tools
16. Leveling bolts & pads
17. Operation & maintenance manual
18. Water gun / Air gun

Optional Accessories

1. 20000 rpm Direct-driven spindle
2. 24000 rpm built-in type spindle
3. Spindle oil cooler
4. Coolant through spindle (built-in spindle)
5. Auto tool length measurement device
6. Auto workpiece measurement device



Vertical High Efficiency 5-axis Machining Center

www.twinhorn.com.tw

VF-5A SERIES

Twinhorn



CHI-FA MACHINERY MANUFACTURER CO., LTD.

No. 44-8, MING-CHUNG RD., SHENG-KANG DIST.,
TAICHUNG CITY, TAIWAN 42948
Tel: +886-4-2562-8747 (Rep.)
Fax: +886-4-2561-4199
E-mail: inquiry@twinhorn.com.tw

www.twinhorn.com.tw

202202.VF-500-5A Series (C1) 0P



Twinhorn

VF-500-5A

High Speed 5-axis Machining Center

Rapid Feed for 3 axis : 36,000 mm/min
3 axis travel : 500/380/400mm
Axis movement "B" tilting : -20°~+115°
Axis movement "C" table : 360°
C axis max. travel : Ø170mm
Table size : Ø170mm



5 axis

High-efficiency, High-Accuracy

Multi-functional, High-efficiency

Rotary/ Tilting table



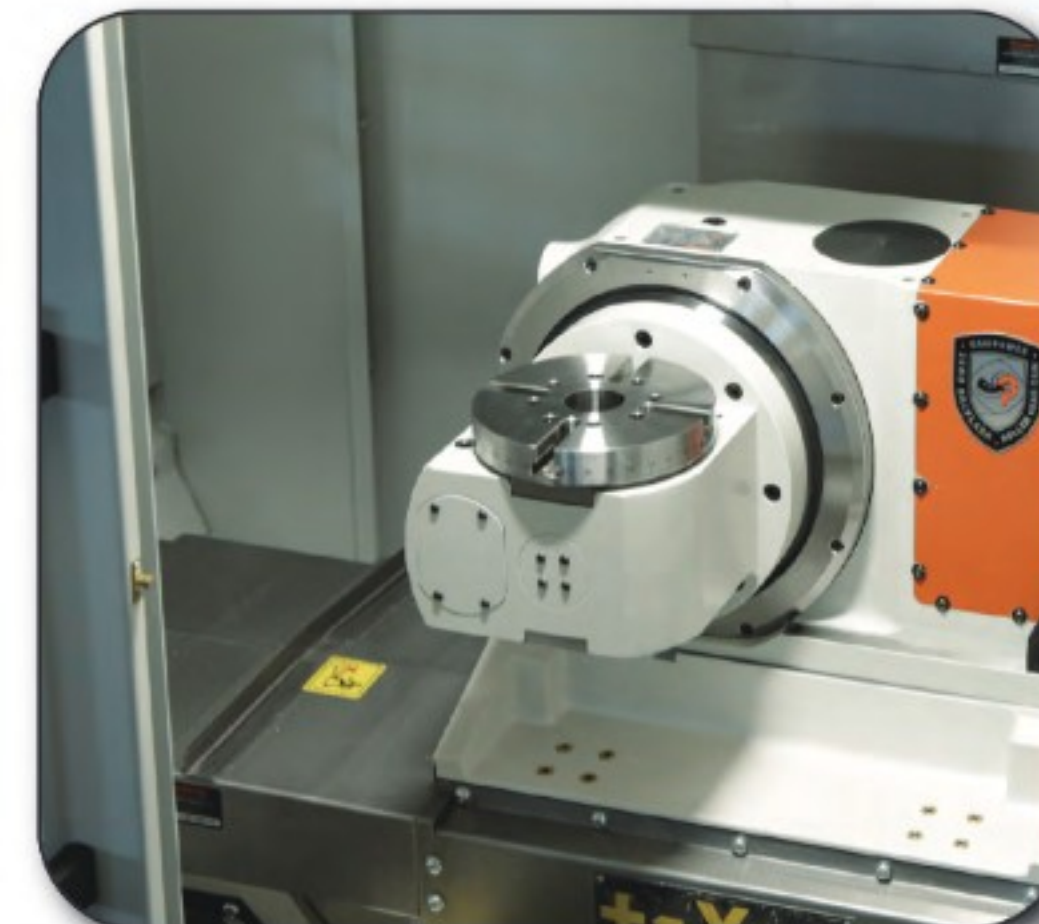
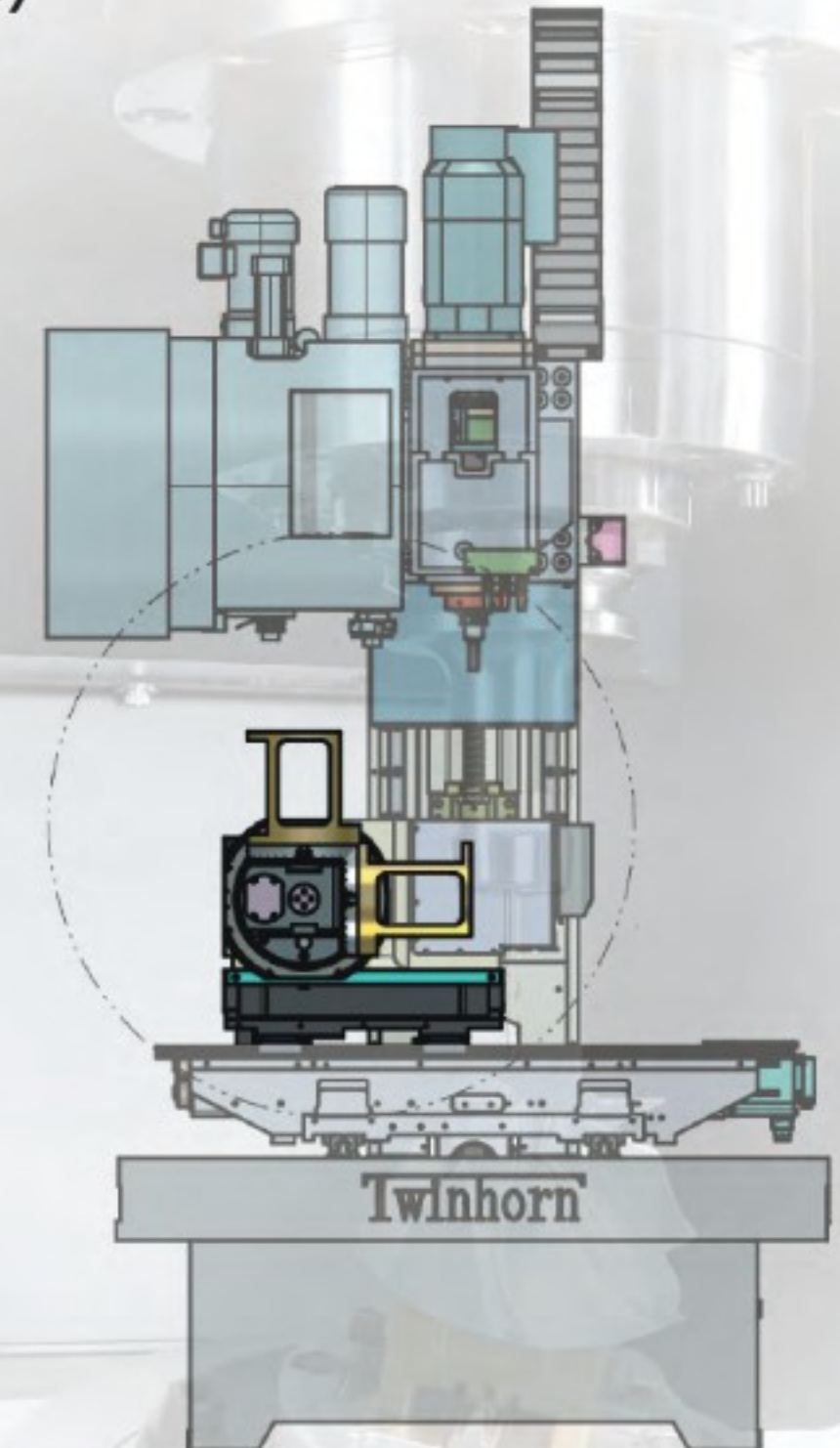
Roller cam transmission

Max. work piece size

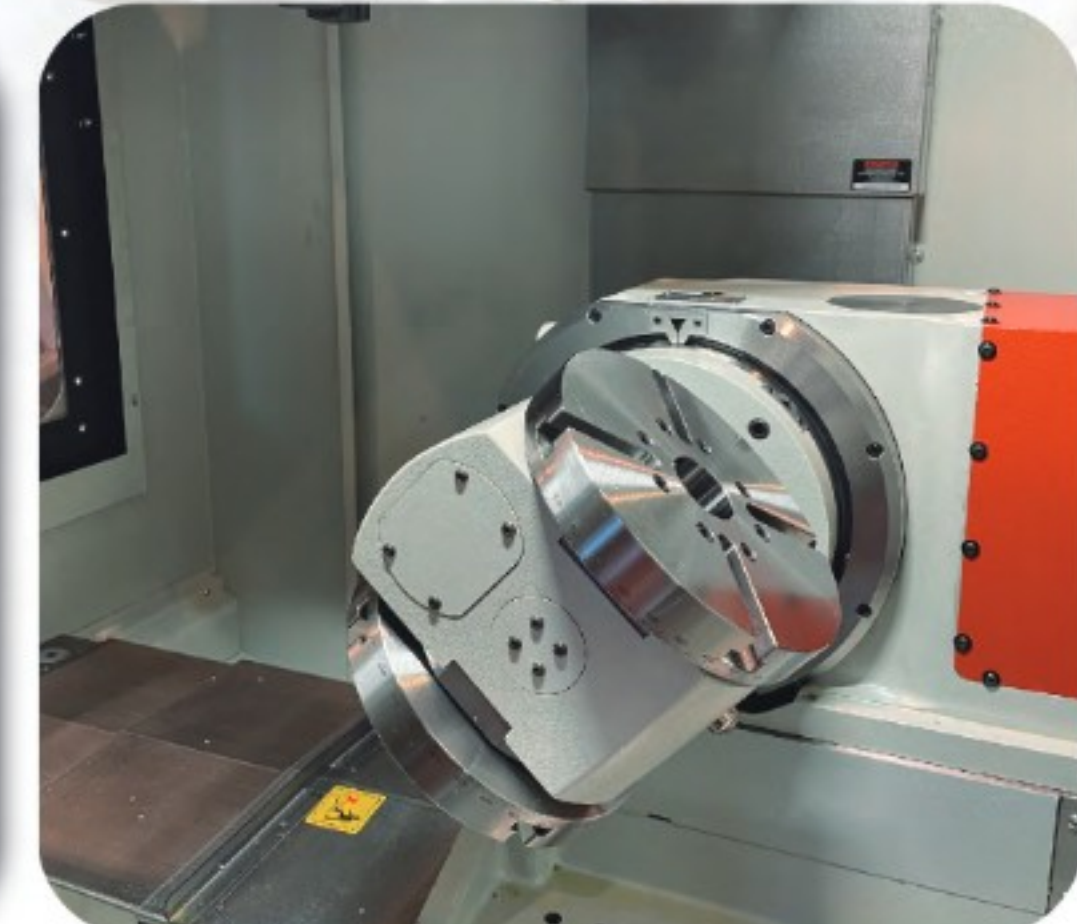
Ø200mm x H200mm

(Table size Ø170mm)

Max. Loading: 30kg



Single pallet design



Dual pallet design

Option: Chip conveyor

VF-700-5A-2P

HIGH EFFICIENCY MULTI AXES MACHINING CENTER

MULTI-TILTING AXIS APPLICATION

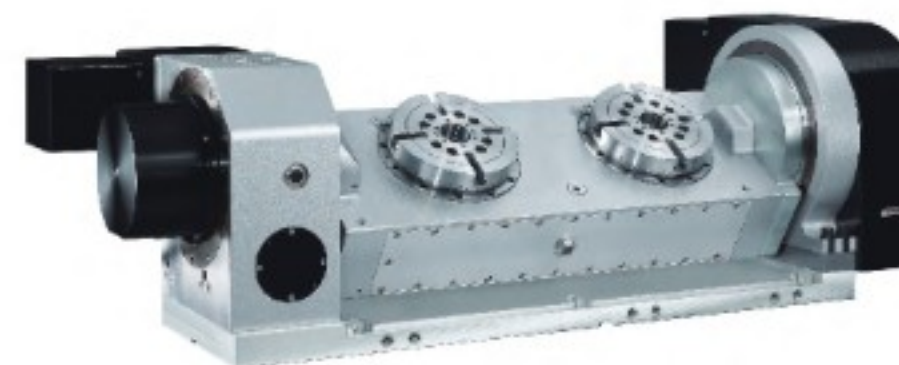
Rapid Feed for 3 axis : 36000 mm/min
3 axis travel : 700/400/400 mm
Axis movement "B" tilting : $-30^{\circ} \sim +120^{\circ}$
Min. index degree : 0.001°
C axis max. travel : $\varnothing 285\text{mm}$
(Opt. $\varnothing 310\text{mm}$)
Table size : $\varnothing 170\text{mm}$ (Opt. $\varnothing 210\text{mm}$)



5 axis

High-efficiency, High-Accuracy

Multi-functional, High-efficiency
Rotary/Tilting table



- ♦ High precision worm gear drive
- ♦ Low center of gravity design ensure machining stability
- ♦ Max Loading : 50kg ($\varnothing 210\text{mm}$ model)
- ♦ Multi-axis simultaneous machining to reach mass production and IT factory

