

DOUBLE COLUMN MACHINING CENTER SLIDING COLUMNS TYPE



SD



SDW

SPECIFICATIONS

	SD/W-24	SD/W-28	SD/W-32	SD/W-36	SD/W-42	SD/W-48	SD/W-54
Distance between columns	2450 mm	2850 mm	3250 mm	3650 mm	4250 mm	4850 mm	5450 mm
Floor table size	6 m - 36 m each increase 1 m						
length	6 m - 36 m each increase 1 m						
width	1600 mm	2000 mm	2400 mm	2800 mm	3400 mm	4000 mm	4600 mm
T-slot	28 x 500 mm						
width x pitch	28 x 500 mm						
Travel	6 m - 36 m each increase 1 m						
X-axis	2400 mm	2800 mm	3200 mm	3600 mm	4200 mm	4800 mm	5400 mm
Y-axis	1100 mm (1400 mm)						
Z-axis	1100 (1400, 1500 - 2000) mm						
W-axis	1000 - 2000 (for SDW series)						
nose to table	1220 - 2320 mm (2620 mm)						
center to column	427 mm						
taper / speed / power	B150 - 6000 rpm • 22 / 26 kW						
Feedrate	5 - 6000 mm/min						
X, Y, Z cutting	5 - 6000 mm/min						
X / Y / Z rapid	10 / 10 / 12 m/min	8 / 10 / 12 m/min		8 / 8 / 12 m/min		6 / 8 / 10 m/min	
W rapid locate	1 - 3 m/min locate any position (for SDW series)						
Accuracy positioning / repeatability	±0,005 / 300 ; ±0,203 ; cross-rail slope 0,020 / 1000 mm						
capacity / dia	32 tools / Max. dia ø125 (full tools) ; ø220 (adjacent pocket empty)						
ATC & tool magazine	20 kgs / 400 mm						
Max. tool weight / length	20 kgs / 400 mm						
tool selection / pull stud	take shortest dimension / M24 P/LD • 45°						
Requirement power / pneumatic	60 - 100 KVA / 6.5 kgs / cm ²						
Maximum table load	3000 kgs / m ²						

5 AXIS SIMULTANEOUS MILLING CENTER



UMC-1600



SPECIFICATIONS

	UMC-1600
Travel	X / Y / Z axis 1620 / 1260 / 1050 mm
Swivel head (B axis)	Vertical to horizontal time 3 seconds
	Transmission DD torque motor
	Rotary angle +10° / +190°
Motor spindle	Maximum spindle speed 8,000 RPM
	Spindle power S1 / S6 37,4 KW / 54 KW
	Spindle torque S1 / S6 170 / 390 Nm
	Spindle taper HSK-A100 / BT / CAT / SKM50
	Front bearing diameter 100 mm
Distances	V : spindle nose to table top 150 - 1200 mm
	H : spindle center to table top 100 - 1150 mm
	V : spindle nose to table center -300 - 980 mm
	H : spindle center to table center -250 - 1010 mm
	Spindle center to column 1105 mm
Rotary table (C axis)	Table dimension Ø 1320 mm
	Table to floor 1085 mm
	Maximum loading 4000 KG
	Maximum rotation 30RPM
	Transmission DD torque motor
	Indexing increment 0,001°
Ball screw	T slots 13 x 194 x P100
	X / Y / Z Diameter x pitch Ø 55 / 55 / 63 mm x 16 / 12 / 12 mm
X / Y / Z axis Roller guide	Number x width 4 / 2 / 2 side ways x 55 mm
	Roller blocks number 8 / 4 / 6
Feed rate	Rapid lead X / Y / Z 24 / 24 / 24 m / min
	Cutting feed 20 / 20 / 20 m / min
	Tools number 60 pieces
ATC	Maximum tool diameter Ø 150 mm
	Maximum tool length 350 mm
	Maximum tool weight 30 kgs
	Tools exchanging position horizontal
Weight	Before packing 32000 KG

5 AXES SIMULTANEOUS MILLING CENTER



UMC-1000

SPECIFICATIONS

		UMC-1000
rotary table	Table dimension	1000 x 800 mm
	T slots (width x No. x pitch)	18 x 7 x 100 mm
	Height of table to floor	1000 mm
	Maximum load of fixed table	1500 kg
	Index increment	0,001° x 180,000
travel	X / Y / Z	1000 x 800 x 700 mm
tilting spindle	Spindle taper	BT40 (HSK-A63)
	Spindle speed RPM	14000 rpm (18000 rpm, 24000 rpm)
	Spindle front bearing diameter	70 mm (Ø5 mm)
	Spindle center to slide way cover	700 mm
	Spindle to table (vertical)	100 - 800 mm
	Index increment	0,001° x 180,000
automatic tool changer	Tool capacity	40 (52)
	Max. length / diameter / weight	300 mm / Ø 120 mm / 7 kg
	Tool to tool time	3 seconds
	Required tool balance	0,5 G
Motors	Main spindle motor power (S1 / S6)	29,3 / 35 KW
	X / Y / Z / B / C axis motor torque	27 / 48 / 48 / 1320 / 48 Nm
feed rate	Axis rapid feed	24 m / min
	Cutting feed rate	20 m / min
tool guideways	X / Y / Z	2 pcs. x 55 mm x 4 bearings / axis
ball screws	X / Y / Z axis diameter	50 mm
	X / Y / Z axis pitch	12 mm
	Transmission	direct coupling
	Precision class	C3, 0,008 / 300 mm
Weight	net	15000 KG

5 AXES MACHINING CENTER - Swing head and rotary table design



FHM-51C

with optional Ø 610 mm torque motor rotary table integrated into 1000 mm x 800 mm platen table

SPECIFICATIONS

	FHM-51C
X / Y / Z linear axis	1000 / 810 / 810 mm
B-Rotary head axis	+30°/-120°
A-Rotary table	0,001° x 360,000
Rotary table type	integrated built in saddle
Rotary table-size / T slot / loading cap	Ø 610 mm / 18 H7 / 500 kgs
Rotary table speed / hydraulic pressure	10 rpm / 50 kg / cm ²
Rotary table center height / bore	50 H7
Spindle to column cover	629 mm
Spindle motor power & Torque	29,3 / 35 kw or 70/180 Nm
Spindle taper / speed	BT40-14000 rpm
Rapid feed-cutting feed	36 / 36 / 24 m / min + 1-20000 mm / min
ATC-Type/No. of tool	Swing arm with 430 mm travel-32 tools
Machine net weight	9000 kgs

FREJOTH

5 AXES MACHINING CENTER - Swing head and rotary table tailstock design



FHM-51A

This is new coming UMC - X / Y / Z-1280 / 880 (810 mm, 610mm Diameter) Integrated rotary table & swing head, BT40-14000 to 35000 rpm motor spindle.

SPECIFICATIONS

	FHM-51A
X / Y / Z linear axis	1000 / 810 / 810 mm
B-Rotary head axis	+30°/-120°
A-Rotary table	0,001° x 360,000
Rotary table type	add on main platen table
Rotary table-size / T slot / loading cap	255 mm Dia. / 12 H7 / 250 kgs with tailstock
Rotary table speed / hydraulic pressure	16,8 rpm / 50 kg / cm ²
Rotary table center bore	40 H7
Spindle to column cover	629 mm
Spindle motor power & Torque	29,3 / 35 kw or 70/180 Nm
Spindle taper / speed	BT40-14000 rpm
Rapid feed-cutting feed	36/36/24 mm/min + 1-20000 mm/min
ATC-Type/No. of tool	Swing arm with 430mm travel-32 tools
Machine net weight	9000 kgs

5 AXES MACHINING CENTER Trunnion table



SPECIFICATIONS

	HSM-250U	HSM-400U	HSM-1000U
Y/Z linear axis	320 / 500 / 450 mm	610 / 400 / 510 mm	800 / 610 / 510 mm
axis tilting table	-30 deg. - +120 deg.	-30 deg. - +120 deg.	-42 deg. - +120 deg.
axis rotary table		360 degree	
indle motor / taper / front bearing diameter	3,7 / 5,5 kw / BT9 40 / 60 mm	7,5 / 11 (-2226) kw / BT9 40 / 70 mm	
ix spindle speeds	8000 - 30000 rpm	8000 - 30000 rpm	8000 - 30000 rpm
indle nose to table surface	85 - 515 mm	75 - 582 mm	130 - 840 mm
ing rotary table - Dimension / loading	210 mm / 75/50 kgs	250 mm / 100 / 50 kgs	600 x 360 mm / 200 / 100 kgs
esting increment	0,001 degree	0,001 degree	0,001 degree
ed rate			
X / Y / Z rapid/cutting feed	30 / 30 / 24 M / min - 8 M / min	30 / 30 / 24 M / min - 8 M / min	30 / 30 / 24 M / min - 8 M / min
Rapid - B / C	25 / 25 rpm	25 / 25 rpm	25 / 25 rpm
enmission - X / Y / Z - B / C	32 mm dia, C3 - worm gear	40, 40, 50 mm dia, C3 - worm gear	
C	24 arm type	34 (32, 40) arm type	
weight	4800 kgs	5500 kgs	7800 kgs

FREJO TH

5 AXES MACHINING CENTER Trunnion table



HSM-1000L/5X

SPECIFICATIONS

	HSM-1000L/5X
Y/Z linear axis	1020 x 810 x 810 mm
axis tilting table	-40 deg. - +120 deg.
axis rotary table	0,001 deg. X 360,000
ix spindle speeds	8000 - 24000 rpm
ing rotary table - Dimension / loading	350 mm dia. / 150 kgs
esting increment	0,001 degree
ed rate	
X / Y / Z rapid / cutting feed	30 / 30 / 24 M per min, 1-7000 mm / min.
Rapid - B / C	25 / 25 rpm
enmission - X / Y / Z - B / C	40 / 40 / 50 mm dia, C3 - worm gear
C	24 arm type
weight	7300 kgs

5 AXES MACHINING CENTER



SPECIFICATIONS

	LU-800
X / Y / Z axis	800 / 900-300 / 620 mm
Spindle nose to worktable	100 - 720 mm
Working table size / loading capacity	800 mm dia. / 1000 kgs
Rapid feed rate - X / Y / Z	48 / 48 / 48 M / min.
Cutting feed rate - X / Y / Z	0,201 - 30 M / min.
A Axis rotating range	+/- 120 degree
C Axis rotating angle	360 degree
B / C Axis Max. speed	75 rpm / 100 rpm
Spindle drive method	Direct drive
Max spindle speed	12000 rpm
Spindle power (Cont./ 30 min.)	30 / 37 kw
Spindle taper / max torque	#40 BBT / CAT / DIN / HSK-A63 - 460 - 236 Nm
ATC system / number of tools	Drum changing mechanism / 30 T
Machine net weight	19000 kgs

FREJO TH

5 AXES MACHINING CENTER



LU-620

SPECIFICATIONS

	LU-620
X / Y / Z axis travel	620 / 520 / 460 mm
Spindle nose to worktable	150 - 810 mm
Working table size / loading capacity	650 mm dia. / 300 kgs
Rapid feed rate - X / Y / Z	38 / 38 / 38 M / min.
Cutting feed rate - X / Y / Z	1 - 25000 mm / min.
B Axis tilting range	-50° - +100°
C Axis rotating angle	360 degree
B / C Axis Max. speed	25 rpm / 25 rpm
Spindle drive method	Direct drive
Max spindle speed	12000 rpm
Spindle power (Cont./ 30 min.)	10 / 12,5 kw
Spindle taper	NBT40
ATC system / number of tools	Drum changing mechanism / 30 T
Machine net weight	8900 kgs

TRAVELLING COLUMN & FIXED TABLE VMC



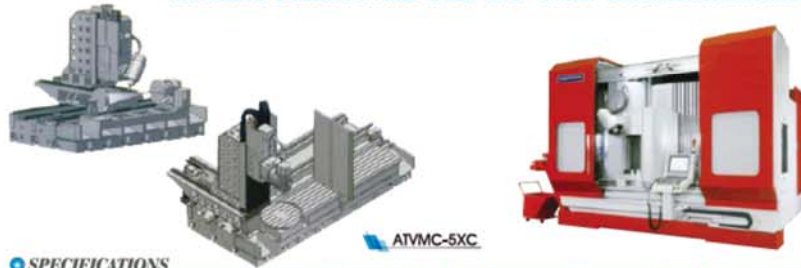
ATVMC-4000

SPECIFICATIONS

	ATVMC-2000	ATVMC-3000	ATVMC-4000	ATVMC-5000
X / Y / Z axis	BT = 40 spindle 2320 / 710 / 610 mm BT = 50 spindle 2320 / 680 / 610 mm	3320 / 710 / 610 mm 3320 / 680 / 610 mm	4320 / 710 / 610 mm 4320 / 680 / 610 mm	5320 / 710 / 610 mm 5320 / 680 / 610 mm
Table size / max. loading	2400 x 700 mm / 3 ton	3400 x 700 mm / 4 ton	4400 x 700 mm / 5 ton	5400 x 700 mm / 5,5 ton
Spindle nose to table / column ways	150 - 760 mm / 750 mm			
Spindle taper / speed	BT / CAT / SK40 or 50 / 10000 Rpm up to 24000 rpm			
Spindle motor	7,5 / 11 kw (up to 34 kw)			
Cutting feed rate	10 M / min.			
Rapid feed rate	30 / 30 / 30 m	24 / 30 / 30 m	24 / 30 / 30 m	18 / 30 / 30 m
ATC - type / No.	Swing arm type 24 / 32 / 40 tools			
X / Y / Z Ballscrew dia.	63 / 50 / 50 mm	70 / 50 / 50 mm	80 / 50 / 50 mm	80 / 50 / 50 mm
Net weight	21000 kgs	23500 kgs	26680 kgs	32620 kgs

FREJOTH

TRAVELLING COLUMN & FIXED TABLE VMC - 5 Axes Base on above ATVMC models



ATVMC-5XC

SPECIFICATIONS

	ATVMC-5XA	ATVMC-5XC
Rotary table • type	Worm wheel or DD motor	DD motor only
Rotary table size	250 / 320 / 400 mm dia	610 & 700 mm
Rotary table loading capacity	600 kgs with tailstock	500 kgs
Rotation speed	16,6 - 150 rpm	50 rpm
X / Y / Z linear travel - axis	2320 / 3320 / 4320 / 5320 mm / 760 / 760 mm	
A / B / C rotary axis	A / B : 0,001° x 360,000 ± 120°	B / C : ± 120° / 0,2011° x 360,000
Swivel milling head • B axis spindle		
Spindle taper / speed	14000 rpm - BT40 / CAT40 / SK40 / HSK - A63	
Spindle motor	29,3 / 35 Kw	
B axis swivel spindle driven system - by DD motor		
ATC type and tool number	Swing arm type • 24 tools	
Spindle • V to column way	891 mm	
Spindle • V to table surface	115 - 875 mm	
Floor to table surface	860 mm	
Net weight	from 22000 kg to 33620 kgs	

ADM CNC DOUBLE COLUMN MACHINING CENTER (3 LINEAR GUIDE WAYS)

ADM • $\frac{\text{A}}{\text{B}}$ A (x 100 mm) : X Axis Travel
B (x 100 mm) : Distance Between Columns



ADM-4228

SPECIFICATIONS

(): As Option
*Specifications are subject to change without prior notice.

	ADM-4228	ADM-5228	ADM-6228	ADM-7228	ADM-8228	ADM-9228	ADM-10228	ADM-1228	ADM-1428	ADM-1628	ADM-1828	
Table	22 mm											
Maximum load	16 tons	20 tons	24 tons	16 tons	20 tons	24 tons	24 tons	16 tons	20 tons	24 tons	24 tons	
X axis	4200 mm	5200 mm	6200 mm	4200 mm	5200 mm	6200 mm	7200 mm	4200 mm	5200 mm	6200 mm	7200 mm	
Y axis	3200 mm			3600 mm			4000 mm					
Z axis	800 (1000, 1200) mm											
Spindle	Spindle servo motor (Cont / 30 min) speed 15 / 18,5 (22 / 26) kw											
	4000 (6000) rpm											
	Taper 7/24 taper No.50, BT-50											
Distances	Between two Columns 2800 mm			3200 mm			3600 mm					
	Spindle nose to Table center 200 - 1000 (200 - 1200, 200 - 1400) mm											

FREJOTH

ADM CNC DOUBLE COLUMN MACHINING CENTER (2 LINEAR GUIDE WAYS)

ADM • $\frac{\text{A}}{\text{B}}$ A (x 100 mm) : X Axis Travel
B (x 100 mm) : Distance Between Columns



ADM-3221

SPECIFICATIONS

(): As Option
*Specifications are subject to change without prior notice.

	ADM-2216	ADM-3216	ADM-4216	ADM-2221	ADM-3221	ADM-4221	ADM-5221	ADM-3226	ADM-4226	ADM-5226	
Table	22 mm										
Maximum load	6 tons	9 tons	10 tons	8 tons	10 tons	12 tons	15 tons	12 tons	14 tons	18 tons	
X axis	2200 mm	3200 mm	4200 mm	2200 mm	3200 mm	4200 mm	5200 mm	3200 mm	4200 mm	5200 mm	
Y axis	1600 mm			2100 mm			2600 mm				
Z axis	800 (1000, 1200) mm										
Spindle	Spindle servo motor (Cont / 30 min) speed 15 / 18,5 (22 / 26) Kw										
	4000 (6000) rpm										
	Taper 7/24 taper No.50, BT-50										
Distances	Between two Columns 1600 mm			2100 mm			2600 mm				
	Spindle nose to Table center 200 - 1000 (200 - 1200, 200 - 1400) mm										