

2. Specifications

2-1 Machine Specifications

Items		Unit	VLC-30/70
Capacity	Maximum swing	mm(inch)	7000(276.6)
	Maximum turning diameter	mm(inch)	7000(276.6)
	Maximum turning height	mm(inch)	3000(118.1)
	Maximum load on table	kg(lbs)	30000(66,140)
Table	Table diameter	mm(inch)	3000(118.1)
	Table speeds	rpm	1~100
	Number of table speed range	step	Automatic 2
	Maximum torque	kgf-m (ft-lbs)	4600(33,120)
C-axis	Minimum index angle	deg.	0.001°
	Cutting feed	deg/min	0~1,200
	Maximum speed	rpm	3.333
	Maximum torque	kgf-m (ft-lbs)	110(792)
Ram Head & Spindle	Tool size	mm(inch)	50×50(1.97×1.97)
	Spindle taper	-	ISO 7/24 No.50
	Spindle tip diameter	mm(inch)	110(4.3)
	Spindle speed	rpm	15~1,500
	Section dimension of square ram	mm(inch)	280×280(11×11)
Travel & Feed	Horizontal travel of saddle (X-axis)	mm(inch)	2500(98.4)
	Vertical travel of saddle (X-axis)	mm(inch)	1600(63)
	Vertical travel of cross rail	mm(inch)	2000(250×8-step)
	Horizontal travel of column	mm(inch)	1500(250×6-step)
	X/Z-axis cutting feed	mm/min (ipm)	0.01~500 (0.004~19.7)
	X/Z-axis rapid traverse	mm/min (ipm)	8000(315)
	Cross rail & column rapid traverse	mm/min (ipm)	300(11.8)

Items		Unit	VLC-30/70
ATC	Type of tool holder	-	MAS BT50
	Number of tool	set	16(Turning 8, Milling 8)
	Maximum tool weight	kg(lbs)	70(154)
	Type of pull stud	-	P50T-1
Motors	Table motor	kW(HP) (30min/Cont.)	AC 60/75(80/100)
	Spindle motor		AC 18.5/22(25/30)
	X/Z-axis cutting feed	kW(HP)	AC 9(12)
	C-axis servo motor	kW(HP)	AC 9(12)
	Column motor	kW(HP)	4P-2.2(2.9)
	Cross rail motor	kW(HP)	4P-5.5(7.3)
Power source	Input power supply	-	AC 200/220V $\pm 10\%$, 50/60Hz ± 1 Hz
	Power capacity	kVA	193
Machine size	Height	mm(inch)	8600(338)
	Floor space (L×W)	mm(inch)	
	Weight	kg(lbs)	88,500(195,000)
CNC system		-	FANUC 18i-TB

2-2 CNC Controller Specification(FANUC 18i-TB)

2-2.1 Standard Functions

Items	Specification
Control Axes	
Controlled axes	2(X, Z)
Simultaneously controllable axes	G00, G01 : 2 axes G02, G03 : 2 axes
Least command increment	0.001mm
Least input increment	0.001mm
Machine lock	
Emergency stop	
Over-travel	
Backlash compensation	
Stored pitch error compensation	
Interpolation & Feed Functions	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Dwell	G04
Reference point return	G27, G28, G29
2nd reference point return	G30
Rapid traverse override	F0/25/50/100%
Feedrate override	0-150%
Jog override	0-150%
Override cancel	
Manual handle feedrate	
Automatic acceleration/deceleration	
Handle interruption	
Constant surface speed	
Chamfering coner R	

Items	Specification
Spindle & Tool Functions	
Polar coordinate interpolation	VTC only
Helical interpolation	VTC only
Spindle speed command	S5 digits
Spindle speed override	50-120%
Spindle orientation	VTC only
Tool number command	T6±T2 digits
Nose R compensation	G40, G41, G42
Number of tool offsets	32 EA
Program & Editing	
Tape code	ISO/EIA
I/O interface	RS-232C
Part program storage	320m
No of registered program	63 EA
Program protect	
Background editing	
Label skip	
Program stop/end	M00/M02, M30
Optional stop	M01
Maximum commandable value	±99999.999mm
Program number	O4-digit
Sequence number	N5-digit
Absolute/Incremental programming	X, Z/U,W
Decimal point input	
Automatic coordinate system setting	
Multiple repetitive I	G71-G76
Sub program	
Work coordinate system	
Local coordinate system	
Machine coordinate system	G53

Items	Specification
Operation, Setting & Display etc.	
Inch/metric conversion	G20/G21
Thread cutting retract	
Rigid tapping	VTC only
Canned cycle drilling	VTC only
Additional macro variable	
Custom macro B	
MDI/Display unit	10.4" color LCD
Operation functions	
Search function	
Dry run	
Single block	
Cycle start	
Feed hold	
Operation, Setting & Display etc.	
Self-diagnostic function	
Display of PMC alarm message	
Clock function	
Help function	
Loadmeter display	
Alarm history display	
Servo setting display	
Memory card interface	
Graphic display	
Dynamic graphic display	
Language display	English/Italian/Germany/Korean

2-2.2 Optional Functions

Optional Functions	
Stored stroke check 2	
Skip function	Tool probe used G31
Extended part program editing	
Part program storage	640/1280/2560m
No. of registered programs	125/400/1000EA
Spindle orientation	
Number of tool offsets	32/64/99EA
Tool life management	
Cylindrical interpolation	
Programmable data input	
Automatic corner override	
Multiple repetitive II	
Play back	
Program restart	
Rigid tapping	
Run hour and part number display	
Variable thread cutting	
Continuous thread cutting	
Work coordinate system preset	
Directory display of floppy	
Direct drawing dimension program	

2-3 Standard Accessories

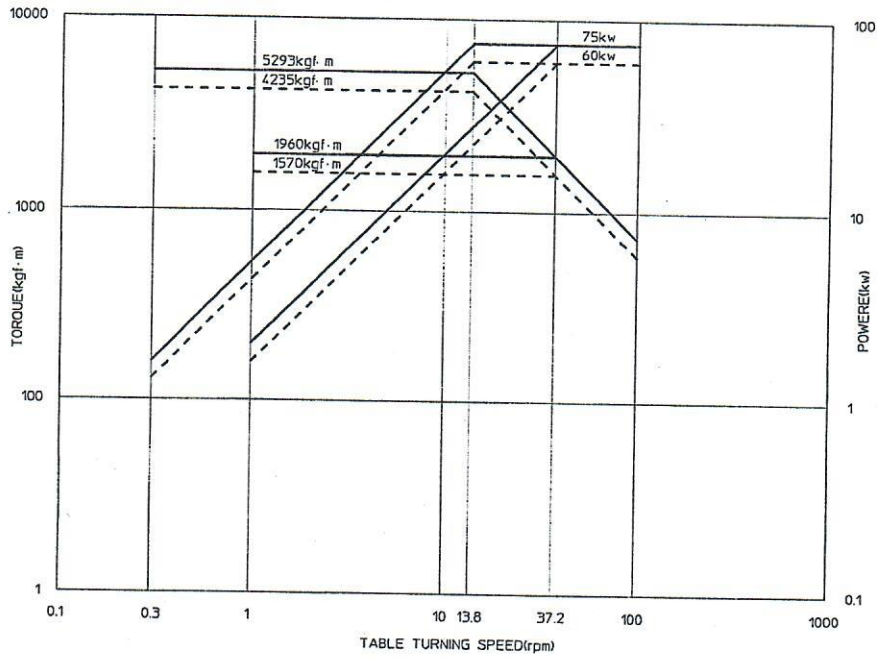
Item	Unit	Specifications
CNC Controller	1 set	FANUC 18i-TB
Heavy duty 4-jaw independent chuck	1 set	-
Automatic tool changer system	1 set	24 tools (Turning 12, Milling 12)
Hydraulic power unit	1 set	AC 5.5 kW 4P, 70 kgf/cm ² - 100ℓ
Coolant system	1 set	AC 1.5 kW 2P, 0.4 kgf/cm ² - 400ℓ
Operating tool kits & tool box	1 set	-
Splash guards	1 set	-
Electrical equipment	1 set	-
X-axis telescopic steel covers	1 set	-
Work light	1 set	-
Patrol ramp	1 set	RED, GREEN, YELLOW
Automatic Slideway lubricating system	1 set	AC 0.025 kW 4P, 20 kgf/cm ² - 6 ℓ
Table lubrication system	1 set	AC 0.75 kW 4P, 5 kgf/cm ² - 100ℓ

2-3.1 Optional Accessories

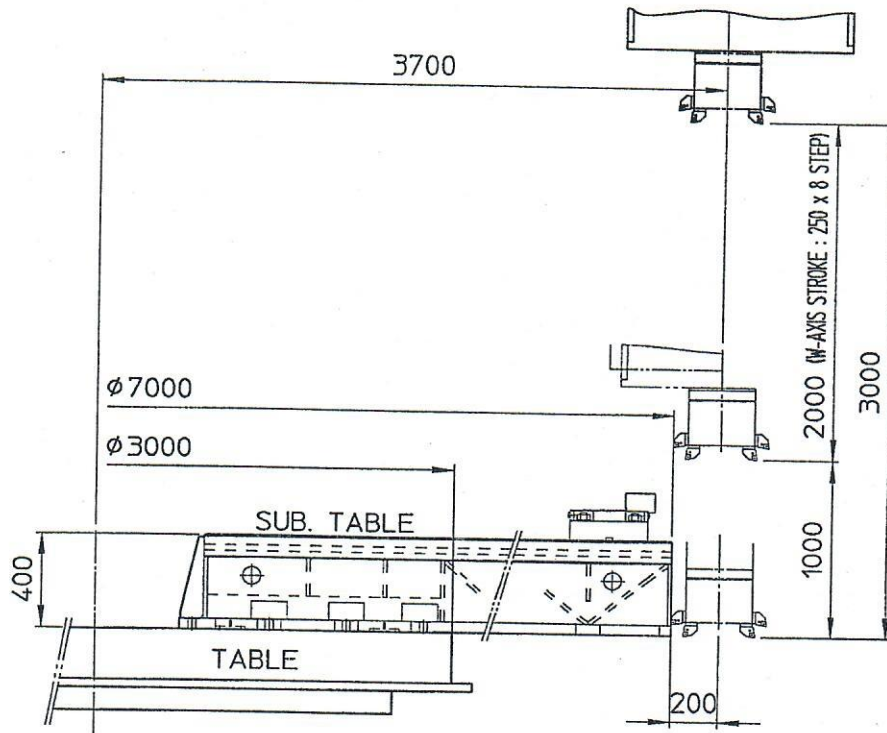
Item	Specifications
Table spindle bearing chiller	3.15 kVA, AC 220/220V, 4500 kcal/h
Chip conveyor & bucket	AC 0.4 kW 4P, 500ℓ
Through coolant	AC 0.75 kW 4P, 5kgf/cm ²
Automatic NC power source OFF device	-
Transformer	380V/220V, 400V/220V
Tool holders	□ 32 x 160, 200, 250

3. Machining Capability

3-1 Table Torque



3-2 Machining Range



3-3 Minimum Boring

