

Appendix I

NAME OF THE ITEM : CNC VERTICAL MACHINING CENTRE	Required Qty. – 01 No.
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Sr.No.	TECHNICAL SPECIFICATIONS	IITRAM - REQUIREMENT	SUPPLIER'S SPECIFICATIONS
1	Make	Specify your machine	
2	Model	Specify your machine	
A	TABLE		
1	Table Size	650-750mm X 300-400mm	
2	T slots of table	3/14 mm/125 mm	
3	Column surface to center of table (Min-Max)	190-400mm	
4	Max. load capacity	300 -500 kg	
5	Height of table top from floor	800-1100mm	
B	TRAVERSES		
1	X-Axis traverse	400-550mm	
2	Y-Axis traverse	300-450mm	
3	Z-Axis traverse	400-550mm	
C	FEEDS (INFINITELY VARIABLE)		
1	Rapid feed rate X, Y & Z axes	20-25 m/minute	
2	Range of Cutting feed rate (Infinite)	0-10 mm/minute	
D	SPINDLE		
1	Spindle taper	BT30 / BT40	
2	Spindle speed range (Infinite)	0-6000 RPM	
3	Spindle center to column front surface	350-450mm	
4	Spindle nose to top of table (Min-Max)	100-500mm	
5	Torque at spindle	70-120 Nm	
E	ACCURACY		
1	Positioning	0.01	
2	Repeatability	0.005	
F	ELECTRICAL		
1	Power Supply	415 V ± 10, 3 Phase,	

		50Hz	
2	Spindle motor	11-15kw	
3	Feed motors of X & Y axis	1-2kw	
4	Feed motor Z axes	1-2kw	
5	Coolant pump	0.1-0.3kw	
6	Lubrication pump	0.1-0.25kw	
7	Power requirement	Specify your machine	
G	AUTOMATIC TOOL CHANGER (ARM TYPE)		
1	No. of tool	6-8	
2	Max. tool diameter	60-80mm	
3	Max. tool length	150-200mm	
4	Type	Electromechanical, Bidirectional	
H	GENERAL		
1	Air pressure	6 bar	
2	Overall size	Specify your machine	
3	Machine weight	Specify your machine	
4	Colour of machine	Powder coated Grey & White	
I	CONTROLLER	Mitsubishi/ Fanuc/Siemens	
1	Technical details of controller	Specify your machine	
2	Main features of controller	Specify your machine	
J	STANDARD ACCESSORIES		
1	Automatic Lubrication system	Provide	
2	Cyclic Coolant system (Programmable)	Provide	
3	Feedback system (Rotary & Linier X,Y & Z)	Provide	
4	Working hour recording	Provide	
5	Electronics hand wheel for the X, Y and Z axis	Provide	
6	Process completion lamp (3 tier)	Provide	
7	Guideway protection through telescopic covers	Provide	
8	Machine Guard	Provide	
9	Sliding door with splash guard	Provide	
10	Sliding door interlock	Provide	
11	Machine lamp	Provide	
12	T Nuts for table (6 Nos)	Provide	
13	Spindle load meter	Provide	

14	Universal Machine Vice 8" (1 No)	Provide	
15	set of Operation & Maintenance tools (1 Set)	Provide	
16	Air compressor with drying unit	Provide	
17	3 Sets of operation and maintenance manual	Provide	
K	OPTIONAL ACCESSORIES		
1	Voltage stabilizer	1 No	
2	Tooling		
a	Collet chuck holder Range 1-25mm	1 No	
b	Collet chuck holder Range 1-16mm	1 No	
c	Keyless drill chuck up to 16mm	1 No	
d	Shell end mill adaptor with carbide cutter	1 No	
e	Endmill cutter 6mm x 25 mm flute length	1 No	
f	Endmill cutter 10mm x 25 mm flute length	1 No	
g	Endmill cutter 16mm	1 No	
L	OTHER IMPORTANT REQUIRMENT		
a	Machine is to be Vibration proof during working condition.		
b	There should be provision to measure power at spindle during working and idle conditions.		
c	Machine parts and components should not be affected by application of cryogenic fluid as a coolant during machining processes.		
M	SPECIAL FEATURES OF MACHINE (IF ANY)		
1	Specify for your machine		
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3			
4			
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