

ANNEXURE "C"			
Technical Proposal			
CNC Vertical Machining Center (High speed/Die/Mould series)			
S.No	Item Description	Tender Specifications	Supplier Specifications & Details
1		Make	
		Model	
		Country of Origin	
		Quantity 01 Set (Complete in all Aspects)	
		Spindle	Spindle Details
	Spindle Taper	BT-40	
	Spindle Coolant Nozzles	Shall be Included	
	Diameter of spindle	Ø 65 mm	
	Spindle Air Curtain(air blast through spindle)	Shall be Included	
	Coolant JETs around Spindle	Minimum 4 nos	
	Spindle Bearing	FAG Japan, Preferably SKF/NTN/NSK or Equivalent	
	Max Spindle speed	8,000 ~10,000 R.P.M	
		Travel	Travel Details
	X-Axis Travel	700-850 mm	
	Y-Axis Travel	450-600 mm	
	Z-Axis Travel	450-600 mm	
		Table	Table Details
	Table Loading Capacity	Min 400 KG	
	Table T slot	18x3x100 mm	
	Distance b/w spindle nose to table surface	100 mm - 600 mm or Nearest	
	Table Size	(900-1000) x (450-600) mm	
		Power & Motor	Power & Motor Details
	AC Spindle Motor	Fanuc α 8 (7.5 KW cont./11 KW 30 min) or Equivalent	
	AC Servo Motors	A22i, 4 KW for X/Y / A22 B, 2.5KW for Z Axis or Equivalent	
		Feed	Feed Details
	Rapid Traverse (X/Y/Z Axis)	Minimum 30/30/24 m/min	
	Max Cutting Feed Rate	1~10 m/min or Better	
		ATC System	ATC System Details
	Type	Umbrella/Armless (Minimum 16 T Or Equivalent)	
		Control & Drives	Control & Drives Details
	Control	Fanuc Oi-MF 8.4"/10.4 " LCD Color Display or Equivalent	
	Power Module	Fanuc A06B-6140-H026 or Equivalent	
	Spindle Drive	Fanuc A06B-6220-H600 or Equivalent	
	Tool Path Graphic Display	Fanuc or Equivalent	
	Servo Drive	For X, Y & Z Axis Fanuc A06B-6117-H209 or Equivalent	
		Cooling System	Cooling System Details
	Coolant Tank	Capacity Min. 100 Litres	
	Handy Coolant Gun	Shall be Included	
		Standard Accessories	Standard Accessories Details
	Leveling Block & Plates	Shall be Included	
	Slides Lubrication Unit	Automatic Type for X,Y,Z Axis	
	Oil Water Separator	Shall be Included	
	Coolant Blast Through Spindle	Shall be Included	
	Cooling Unit	Oil Cooling Unit for Spindle (Habor) or Equivalent	
	Splash Guard	Fully Enclosed	
	Work Lamp	Shall be Included	
	Manuals (English)	Hard & Soft Including Operation & Maintenance Manuals & Drawings	
	Interface	RS-232 Interface, LAN and CF Card or U.S.B.	
	Transformer	Primary Input Voltage 415 / 380 (50 Hz 3 Phase) Yeon or Equivalent	
	Spindle Lock Function	Shall be Included	
		Safety Features Detail	Safety Features Detail
	Lubrication Safety		
	Air Pressure Safety		
	Spindle Over Heat Safety		
	Spindle Over Load Safety		
	Axis Motor Safety		
	Door Safety		
	Emergency Stop Function		
	Safety Instructions		
	Tool Unclamp & Clamp Safety		
	Dust & Oil Protection		
	Overloads & Fuse Box		
	Alarm Indication Buzzer & Lights		
	Machine Alarm Indications & Remedies		
		General	Values/Details
	Machine Weight	Minimum 5000 KG	
	Spindle Bearing Assembly	Runout & Life Value	
	Pretension Ball Screw	Minimum Pre-Tensioned Ball Screw on X/Y/Z Axis Hiwin Taiwan or Equivalent	
	Positioning Accuracy	0.005 mm per 300 mm or Better	
	Repeatable Accuracy	(+/-) 0.003 mm or Better	
	Linear Guides Ways	THK or Equivalent	
	Aging Time of Casting Structure	Minimum 3 Months with Manufacturer Certification	
	Standard Warranty	12 Months from Date of Commissioning of Machine	
	Diameter of Spindle	Ø 65 mm or Better	
	Availability of Spares	Min 10 Years	
	Delivery Time	Maximum 90~140 Days	