

**CNC Machining Centre  
Technical Specifications**

	Make	To be specified by the Bidder
	Model	To be specified by the Bidder
Sl. No.	Item	Specification
<b>1</b>	<b>Axis Travel</b>	
1.1	X Axis Travel	500 mm or better
1.2	Y Axis Travel	400 mm or better
1.3	Z Axis Travel	450 mm or better
<b>2</b>	<b>Table</b>	
2.1	Length of Table	650 min or better
2.2	Width of Table	400 min or better
2.3	Max load on table	400 Kg. or better
<b>3</b>	<b>Machine Spindle</b>	
3.1	Spindle Motor	Specify Make & Model No.
3.2	Spindle Power	5.5 kW or better
3.3	Spindle Speed	8000 rpm or better
3.4	Spindle Taper	BT40
<b>4</b>	<b>Feed</b>	
4.1	Cutting Feed Rate	1 - 10000 mm/min or better
4.2	Rapid Traverse X / Y / Z Axes	40 m/min or better
<b>5</b>	<b>Accuracy</b>	
5.1	Positioning	10 Microns or better
5.2	Repeatability	5 Microns or better
<b>6</b>	<b>Automatic Tool Changer</b>	
6.1	Magazine Capacity	20 or better
6.2	Tool Selection	Bi-directional & Random
6.3	Max. Tool Diameter	80 mm or better
<b>7</b>	<b>CNC System</b>	
7.1	Controller	Fanuc / Siemens / Haas or equivalent - latest with Complete Module
7.2	Onboard Storage for Part Programmes	Bidder to specify in GB
7.3	Programming Functions with Editor	Complete Module with Technical Calculator for Power & Torque Requirements, with DXF file import facility, 3D Simulation.
7.4	Monitor Screen Size & Type	Bidder to specify
7.5	Handy Machine Operator's Panel / Hand MPG Details	Suitable unit to be supplied with machine, Bidder to specify the details.
<b>8</b>	<b>Data Transfer &amp; Connectivity</b>	Ethernet, USB Ports, RS-232C Communication Ports, Etc.
<b>9</b>	<b>Essential Accessories</b>	
9.1	Voltage Stabilizer	Bidder to specify and quote suitable for the machine
9.2	Ultra Isolation Transformer	Bidder to specify and quote suitable for the machine
9.3	Silent Air Compressor with drier and required filters	Bidder to specify and quote suitable for the machine
9.4	Automatic centralized lubrication system	Bidder to specify and quote suitable for the machine
9.5	Edge Finder	Bidder to specify and quote suitable for the machine
9.6	Set of Anti-Vibration Machine Mounts / Levelling Pads	Bidder to specify and quote suitable for the machine
9.7	Operation Hardware	Flushing gun for internal cleaning, Coolant tank with chip conveyor
9.8	General Tools to be supplied with machine as standard package	COLLET CHUCK HOLDER BT40/A70/ER16 - 2 Nos. COLLET CHUCK HOLDER BT40/A70/ER25 - 2 Nos. COLLET CHUCK HOLDER BT40/A70/ER32 - 2 Nos. COLLET CHUCK HOLDER BT40/A70/ER40 - 2 Nos. COLLET ER16 DIA. 3, 4, 5 (mm) - 1 No. each COLLET ER25 DIA 5, 6, 8, 10, 12, 16 (mm) - 1 No. each COLLET ER32 DIA 10,12,14,16,18, 20 (mm) - 1 No. each COLLET ER40 DIA 21, 22, 23, 24, 25, 26 (mm) - 1 No. each Solid carbide end mill cutters - 3 Nos. set Composite Taper Clamp - 4 Nos. Slot clamp - 4 Nos. Adjustable Height Plate - 4 Nos. Strap Clamp - 4 Nos. 108 Tee nut - 4 Nos. Clamping stud - 4 Nos. Clamping stud - 4 Nos. Plain washer - 4 Nos. Clamping nut - 4 Nos. Set of HSS end mills Dia. 5, 6, 8 (mm) - 1 No. each Set of HSS end mills Dia. 10, 12, 16 (mm) - 1 No. each HSS Slot Drills Dia. 5, 6, 8 (mm) - 1 No. each HSS Slot Drill Dia. 10, 12, 16 (mm) - 1 No. each Centre Drill Dia. 1 mm x Shank dia. 8 mm - 1 No. Twist drill dia. 2.5, 3, 4, 4.2, 5, 6, 6.8, 8, 10 (mm) - 1 No. each Machine Taps - M4, M5, M6, M8 & their Tap Collets - 1 No. each Solid Carbide Drills Dia. 5, 6, 8 (mm) - 1 No. each Dia. 50 Milling Cutter, Tool Holder & 10 Nos. Inserts - 1 Set Dia. 80 Milling Cutter, Tool Holder & 10 Nos. Inserts - 1 Set Any other tools (Bidder has to specify)

9.9	Clamping Kit	Clamp Set & Precision Hydraulic Vise with jaw opening of min. 275 mm and clamping force 60 KN - 1No
10	Any other accessories if available for better utilization	Bidder to specify and quote if any other accessories available /required for smooth running and better utilization of the machine including Software for Machine Monitoring & Machine Maintenance, etc.
11	Terms & Conditions	<p>Manufacture/Supplier should have sizable installations of same or better model worldwide and at least Five in India including centrally funded institutions.</p> <p>Copies of min. 5 Nos. of Purchase Orders for the same model machine supplied in this &amp; previous financial years to be submitted.</p> <p>A Satisfactory Performance certificate from five organizations to be provided for eligibility. Bidder should submit complete contact details of the concerned organizations.</p> <p>List of clients in last five years to be provided.</p> <p>Manufacture/Supplier must have</p> <ol style="list-style-type: none"> <li>1. Required setup to manufacture/supply the machine. Site Visit/Inspection may be done for Technical Evaluation.</li> <li>2. Minimum Annual Turnover of Rs. 100 Crores.</li> <li>3. Minimum of 50 Direct Employees working at their firm.</li> </ol> <p>Supporting Documents to be submitted for the above for verification.</p> <p>Equipment should be CE certified</p> <p>Authorization Letter from OEM</p>
12	Scope of supply	Bidder should submit complete scope of supply (Machine, standard accessories, Optional Accessories etc with make & model) in the technical bid without price. Bidder should supply complete start-up package necessary to prove the machine and provide training.
13	<b>INSTALLATION, COMMISSIONING AND TRAINING</b>	
13.1	Installation and commissioning requirements	Bidder should state the space required and condition of floor and any other requirements for installation of the machine and equipments. State clearly the specifications of electrical requirement. Vendor should carry out supply, unloading, positioning, installation and commissioning of the machine and its accessories on a turnkey basis including required power cables and first fill of oils & other consumables.
13.2	Training and documentation	<p>Minimum of 3 days training on Programming, Operations &amp; Maintenance of supplied machine. Training content and plan to be submitted. Training faculty must have adequate experience in this field.</p> <p>The vendor should supply the hardcopy of all necessary manuals such as</p> <ul style="list-style-type: none"> <li>- Machine Operation Manual</li> <li>- Software Instruction Manual</li> <li>- Maintenance and Troubleshooting Manual</li> <li>- Training Manual</li> <li>- Installation and Commissioning</li> <li>- Handling of Accessories</li> </ul> <p>and also Softcopy of all Manuals &amp; applicable Software CDs</p>
13.3	Warranty	The whole system and its accessories should be given two years warranty for the machine and three years for the spindle replacement and service against any design, manufacturing and workmanship defects from the date of installation and commissioning.
13.4	Technical support and service	Manufacturer should have established after sales & service network in India. The vendor shall have local service and application office and infrastructure to attend by visit within 48 hours of need. Technical support personnel must have adequate experience in this field. Technical support personnel details should be submitted. Name and address of the authorized service centre/ partner in India along with the certificate of authorization should be attached.
13.5	Annual Comprehensive Maintenance Contract (ACMC) as optional	Vendor should quote for Annual Comprehensive Maintenance Contract for the whole system and accessories supplied after the completion of performance warranty period. Supplier has to provide service support within 48 hours. Calibration of the machine shall be a part of warranty and ACMC. It shall also be mandatory to perform calibration after every major repair or breakdown