

Appendix-I

| Sr.No. | Name of the item with Specifications | Qty. |
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| | CNC Vertical Machining Centre | 01 No. |
| A | TABLE <ol style="list-style-type: none"> 1. Table Size - 650-750 mm X 300-400 mm 2. T slots of table - 3 X 14 X 110/125 mm 3. Column surface to center of table (Min-Max) distance - 190-400 mm 4. Max. load capacity - 225 -500 kg 5. Height of table top from floor - 800-1100 mm | |
| B | TRAVERSES <ol style="list-style-type: none"> 1. X-Axis traverse - 400-550 mm 2. Y-Axis traverse - 300-450 mm 3. Z-Axis traverse - 250-500 mm | |
| C | FEEDS (INFINITELY VARIABLE) <ol style="list-style-type: none"> 1. Rapid feed rate X, Y & Z axes - 15-25 m/minute 2. Range of Cutting feed rate (Infinite) - 0-10 m/minute | |
| D | SPINDLE <ol style="list-style-type: none"> 1. Spindle taper - BT40 2. Spindle speed range (Infinite) - 0-4000/6000 RPM 3. Spindle center to column front surface - 350-450mm 4. Spindle nose to top of table (Min-Max) - 100-500mm 5. Maximum torque at spindle (800-1200 RPM) - Greater than 40 Nm | |
| E | ACCURACY <ol style="list-style-type: none"> 1. Positioning - 0.01 mm 2. Repeatability - 0.005 mm | |
| F | ELECTRICAL <ol style="list-style-type: none"> 1. Power Supply - 415 V \pm 10, 3 Phase, 50Hz 2. Spindle motor - 7.5/5.5 kW 3. Feed motors of X & Y axis - 1-2 kw 4. Feed motor Z axes - 1-2 kw | |

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| | <div>5. Coolant pump - 0.1-0.3 kw</div> <div>6. Lubrication pump - 0.09-0.25 kw</div> <div>7. Power requirement - Specify your machine</div> | |
| G | <div>AUTOMATIC TOOL CHANGER (ARM TYPE)</div> <div>1. No. of tool - 6-8</div> <div>2. Max. tool diameter - 60-80mm</div> <div>3. Max. tool length - 150-200mm</div> <div>4. Type - Electromechanical, Bidirectional</div> | |
| H | <div>GENERAL</div> <div>1. Air pressure - 6-7 bar</div> <div>2. Overall size - Specify your machine</div> <div>3. Machine weight - Specify your machine</div> <div>4. Colour of machine - Powder coated Grey & White</div> | |
| I | <div>CONTROLLER - Mitsubishi/ Fanuc/Siemens/Haas</div> <div>1. Technical details of controller - Specify your machine</div> <div>2. Main features of controller - Specify your machine</div> | |
| J | <div>STANDARD ACCESSORIES</div> <div>1. Automatic Lubrication system - Provide</div> <div>2. Cyclic Coolant system (Programmable) - Provide</div> <div>3. Feed back system (Rotary) -Provide</div> <div>4. Working hour recording - -Provide</div> <div>5. Electronics hand wheel for the X, Y and Z axis - Provide</div> <div>6. Process completion lamp (3 tier) - Provide</div> <div>7. Guideway protection through telescopic covers - Provide</div> <div>8. Machine Guard - Provide</div> <div>9. Sliding door with splash guard - Provide</div> <div>10. Sliding door interlock - Provide</div> <div>11. Machine lamp - Provide</div> <div>12. T Nuts for table (6 Nos) - Provide</div> <div>13. Spindle load meter - Provide</div> <div>14. Universal Machine Vice 8” (1 No) - Provide</div> | |

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| <p>K</p> | <p>15. set of Operation & Maintenance tools (1 Set) - Provide</p> <p>16. 3 Sets of operation and maintenance manual - Provide</p> <p>OPTIONAL ACCESSORIES</p> <ol style="list-style-type: none"> 1. Voltage stabilizer 1 No 2. Tooling <ol style="list-style-type: none"> (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) End mill cutter 6 mm x 25 mm flute length - 1 No (f) End mill cutter 10 mm x 25 mm flute length - 1 No (g) End mill cutter 16mm - 1 No (h) Air compressor with drying unit - Provide <p>L</p> <p>OTHER IMPORTANT REQUIRMENT</p> <ol style="list-style-type: none"> 1. Machine is to be vibration proof during working condition. 2. There should be provision to measure power at spindle during working and idle condition. 3. Machine parts and component should not be affected by application of cryogenic fluid as a coolant during machining processes. 4. After detailed scrutiny of offers, Venders may be called at IITRAM for technical presentation, if required. <p>M</p> <p>SPECIAL FEATURES OF MACHINE (IF ANY)</p> <ol style="list-style-type: none"> 1. 2. 3. | |
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