

Name of Machine	Specification	A/U	Qty																																																																	
(a)	(c)	(d)	(e)																																																																	
CNC Spring Coiling Machine	<p>CNC Spring Coiling Machine with all standard and additional accessories as per specification below :</p> <p>1. Specification:</p> <p>a. Main Machine:</p> <p>(1) Details of spring to be manufactured :</p> <table border="1" data-bbox="421 528 1315 931"> <thead> <tr> <th>Ser</th> <th>Wire size (mm)</th> <th>Length of springs (mm)</th> <th>Inner dia of springs (mm)</th> <th>Outer dia of springs (mm)</th> </tr> </thead> <tbody> <tr><td>(i)</td><td>Ø 0.3</td><td>14.0</td><td>Ø 2.4</td><td>Ø 3.0</td></tr> <tr><td>(ii)</td><td>Ø 0.5</td><td>14.0</td><td>Ø 2.2</td><td>Ø 3.2</td></tr> <tr><td>(iii)</td><td>Ø 0.6</td><td>17.5</td><td>Ø 2.4</td><td>Ø 3.6</td></tr> <tr><td>(iv)</td><td>Ø 0.8</td><td>20.8</td><td>Ø 3.6</td><td>Ø 5.2</td></tr> <tr><td>(v)</td><td>Ø 0.8</td><td>40.0</td><td>Ø 3.2</td><td>Ø 4.8</td></tr> <tr><td>(vi)</td><td>Ø 0.9</td><td>6.0</td><td>Ø 8.0</td><td>Ø 9.8</td></tr> <tr><td>(vii)</td><td>Ø 1.0</td><td>38.0</td><td>Ø 14.0</td><td>Ø 16.0</td></tr> <tr><td>(viii)</td><td>Ø 1.0</td><td>13.0</td><td>Ø 7.0</td><td>Ø 9.0</td></tr> <tr><td>(ix)</td><td>Ø 1.1</td><td>433.4</td><td>Ø 9.3</td><td>Ø 11.5</td></tr> <tr><td>(x)</td><td>Ø 1.5</td><td>525.0</td><td>Ø 50.7</td><td>Ø 53.7</td></tr> <tr><td>(xi)</td><td>Ø 1.2</td><td>37.5</td><td>Ø 20.6</td><td>Ø 23.0</td></tr> <tr><td>(xii)</td><td>Ø 1.6</td><td>170.0</td><td>Ø 13.5</td><td>Ø 16.7</td></tr> </tbody> </table> <p>(2) Min spring diameter (outer): 3.0 mm (3) Max spring diameter (outer) : 54.0 mm (4) Control System : Updated version of FANUC/SIEMENS/HAAS/Equivalent (5) Number of Controlled axis (Min) : 3 (6) Power supply : 3 phase, 50Hz, 380~420V. (7) Guide Arm (min) : 08 Nos (8) Feed Speed (min) : To be mentioned (9) Rotary Angle : Infinite (10) Memory : To be mentioned</p> <p>b. Automatic Wire Feeder:</p> <p>(1) Capacity of wire feeder (Min) : 150 Kg (2) Diameter of feeder tray : ≥ 800 mm (3) Power supply : 3 ph, 50Hz, 380~420.</p> <p>2. Country of Origin : Group B</p> <p>3. Country of Manufacturing, Assembly & Shipment : Group B</p> <p>4. Name of Manufacturer : To be mentioned</p> <p>5. Conditions:</p> <p>a. List of standard item must be provided with the machine. b. All accessories, attachments, tools, cutter, fixture etc. required to produce springs as mentioned at 1.a(1) must be supplied with the machine and price to be quoted separately in the offer. c. 2 × User/ programming manual in English (Hard & Soft copy) must be supplied with the machine. 1 Set of all documents must be loaded in CNC system for easy maintenance. d. 1 × Operation, 1 x Maintenance and Repair manual (Hard & Soft copy) with parts catalogue and circuit diagram of electrical devices in English to be supplied with the machine. These books must contain the following topics/items:</p> <p>(1) Operation manual: Hydraulic, Pneumatic, Electrical, Electronic and Mechanical operational circuit and component diagrams with their detail working principles & description. (2) Maintenance and Repair manual: Detail troubleshooting & repair procedure as well as maintenance and safety system. (3) 1 Set of all documents must be loaded in CNC system for easy maintenance.</p>	Ser	Wire size (mm)	Length of springs (mm)	Inner dia of springs (mm)	Outer dia of springs (mm)	(i)	Ø 0.3	14.0	Ø 2.4	Ø 3.0	(ii)	Ø 0.5	14.0	Ø 2.2	Ø 3.2	(iii)	Ø 0.6	17.5	Ø 2.4	Ø 3.6	(iv)	Ø 0.8	20.8	Ø 3.6	Ø 5.2	(v)	Ø 0.8	40.0	Ø 3.2	Ø 4.8	(vi)	Ø 0.9	6.0	Ø 8.0	Ø 9.8	(vii)	Ø 1.0	38.0	Ø 14.0	Ø 16.0	(viii)	Ø 1.0	13.0	Ø 7.0	Ø 9.0	(ix)	Ø 1.1	433.4	Ø 9.3	Ø 11.5	(x)	Ø 1.5	525.0	Ø 50.7	Ø 53.7	(xi)	Ø 1.2	37.5	Ø 20.6	Ø 23.0	(xii)	Ø 1.6	170.0	Ø 13.5	Ø 16.7	No	01
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	<p>e. Local Training: Machine installation, trial run and operational with maintenance, training is to be provided by the certified engineers' of machine manufacturer at BOF site within one month (30 days) from the date of arrival of the machines at BOF. Duration of training should be at least 07(seven) working days. Following information must be given as under :</p> <table border="1" data-bbox="209 320 1326 819"> <thead> <tr> <th data-bbox="209 320 1023 347">1. Details Local Training after machine installation)</th> <th data-bbox="1026 320 1326 347">Supplier`s Opinion</th> </tr> </thead> <tbody> <tr> <td data-bbox="209 351 1023 380">a. Trainer Type (Local/ Foreign)</td> <td data-bbox="1026 351 1326 380">To be mentioned</td> </tr> <tr> <td data-bbox="209 385 1023 414">b. Number of Trainer</td> <td data-bbox="1026 385 1326 414">To be mentioned</td> </tr> <tr> <td colspan="2" data-bbox="209 439 1326 468">2. Training</td> </tr> <tr> <td data-bbox="209 472 1023 501">a. Machine Operators Training: 04 Working Days</td> <td data-bbox="1026 472 1326 501"></td> </tr> <tr> <td data-bbox="209 506 1023 557">b. Machine maintenance, trouble shooting and repair training : 03 working days</td> <td data-bbox="1026 506 1326 557"></td> </tr> <tr> <td colspan="2" data-bbox="209 562 1326 591">3. Topics:</td> </tr> <tr> <td data-bbox="209 595 1023 647">a. Details operation of electrical, electronics, pneumatic system, hydraulic system and mechanical system with diagrams in details.</td> <td data-bbox="1026 595 1326 647"></td> </tr> <tr> <td data-bbox="209 651 1023 732">b. Control system: program loading and unloading, debugging, editing and servo drive and servo motors interconnection and parameter setting in details.</td> <td data-bbox="1026 651 1326 732"></td> </tr> <tr> <td data-bbox="209 736 1023 819">c. Troubleshooting: Artificial problems to be created by removing sensors and changing the parameters of servo drive and servo motors then faults diagnosis and repair procedures.</td> <td data-bbox="1026 736 1326 819"></td> </tr> </tbody> </table> <p>f. Pre-shipment Inspection (PSI): (i) PSI of the machine will be carried out by BOF at the discretion of BOF authority. The team may be comprised of 02 (two) BOF persons for a period of 03(three) working days excluding journey period.</p> <p>g. 01 x Voltage stabilizer must be supplied with the machine.</p> <p>h. Warranty for 01 (one) year after acceptance.</p> <p>j. The supplier should give service support for 10 (ten) years after installation of machine.</p> <p>k. Standard lubricating, cooling and lighting system must be provided with the machine.</p> <p>l. All Drivers and Motors should be of same control system.</p> <p>m. Bidder should submit original Leaflet/ Brochure with the offer.</p>	1. Details Local Training after machine installation)	Supplier`s Opinion	a. Trainer Type (Local/ Foreign)	To be mentioned	b. Number of Trainer	To be mentioned	2. Training		a. Machine Operators Training: 04 Working Days		b. Machine maintenance, trouble shooting and repair training : 03 working days		3. Topics:		a. Details operation of electrical, electronics, pneumatic system, hydraulic system and mechanical system with diagrams in details.		b. Control system: program loading and unloading, debugging, editing and servo drive and servo motors interconnection and parameter setting in details.		c. Troubleshooting: Artificial problems to be created by removing sensors and changing the parameters of servo drive and servo motors then faults diagnosis and repair procedures.			
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