

**TEXTILES COMMITTEE**

Infrastructure Requirements – Machine to Trainee ratio

**RESOURCE SUPPORT AGENCY  
under Samarth**

<b>Sr. No</b>	<b>Name of the Module</b>	<b>Course Code</b>	<b>Machine Requirement</b>	<b>Machine to Trainee Ratio</b>
1.	Circular Knitting Machine Operator	TC KNT 01	Circular Knitting Machine	Machine to trainee ratio 1:10
2.	Warp Knitting Machine Operator	TC KNT 02	Warp Knitting Machine	Machine to trainee ratio 1:15
3.	HT-HP Cheese Dyeing Machine Operator	TC PRC 01	<ol style="list-style-type: none"><li>1. HT-HP Cheese Dyeing machine</li><li>2. One crane for shifting bobbin carrier</li><li>3. Hydro extractor (Desirable)</li></ol>	<ol style="list-style-type: none"><li>1. HT-HP Cheese Dyeing machine:- Machine to Trainee ratio 1:15</li><li>2. Hydro extractor (Desirable):- Machine to Trainee ratio 1:30</li></ol>
4.	Fabric Singeing Machine Operator	TC PRC 02	Fabric Singeing Machine	Machine to trainee ratio 1:30
5.	Desizing Machine Operator	TC PRC 03	Fabric Desizing Machine	Machine to trainee ratio 1:30
6.	Continuous Bleaching Range (Fabric Bleaching) Machine Operator	TC PRC 04	Continuous Bleaching Range	Machine to trainee ratio 1:30
7.	Fabric Mercerizing Machine Operator	TC PRC 05	Fabric Mercerizing Machine	



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				Machine to trainee ratio 1:30
8.	Jigger Machine Operator	TC PRC 06	Jigger Machine of any type like Jumbo or hooded etc	Machine to trainee ratio 1:30
9.	Stenter Machine Operator	TC PRC 07	Stenter Machine	Machine to trainee ratio 1:30
10.	Calendering Machine Operator	TC PRC 08	Calendering Machine	Machine to trainee ratio 1:30
11.	Zero Zero Finishing Machine Operator	TC PRC 09	Zero Zero Finishing Machine	Machine to trainee ratio 1:30
12.	Winch Dyeing Machine Operator	TC PRC 10	Winch Dyeing Machine	Machine to trainee ratio 1:30
13.	Soft Flow Dyeing Machine Operator	TC PRC 11	Soft Flow Dyeing Machine	Machine to trainee ratio 1:30
14.	Compacting Machine Operator	TC PRC 12	Compacting Machine	Machine to trainee ratio 1:30
15.	Washing operator (DENIM)	TC PRC 13	Washing Machine, Hydroextractor, Drier, Work station fitted with pant leg shaped strong wooden flat, Design pattern made up of rubber material, Compressed air with pressure, Work station Mounted Horizontal to the surface level - Fitted with Two M.S.pipe, each pipe per leg of the Jeans pant and both end of each pipe	Machine to trainee ratio 1:30



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			covered by the Rubber tube / sheet & tighten by suitable clamping. complete set is attached to the semi-rotary mechanism, Grinding Machine, Grinding wheel, Tacking Machine/Hand Tacking gun, Pressure tank for spraying, fitted with pressure indicator & Regulator	
16.	Embroidery Machine Operator	TC GMT 01	Embroidery Machines	Machine to trainee ratio 1:2
17.	Fuser and Ironer	TC GMT 02	<ol style="list-style-type: none"> <li>1. Ironing table</li> <li>2. Steam iron with steam attachment</li> <li>3. Fusing machine-</li> </ol>	<ol style="list-style-type: none"> <li>1. Ironing table – Machine to trainee ratio 1:3</li> <li>2. Steam iron with steam attachment - Machine to trainee ratio 1:3</li> <li>3. Fusing machine- Machine to trainee ratio 1:10</li> </ol>
18.	Computer Embroidery Machine Operator	TC GMT 03	Minimum six head computer embroidery machine along with computer and required supporting software	Machine to trainee ratio 1:15
19.	Garment Checker	TC GMT 04	Inspection table (minimum size 60X40 inches)	Machine to trainee ratio 1:5
20.	CAD Operator	TC GMT 05	<ol style="list-style-type: none"> <li>1. Computer set with CAD software</li> <li>2. Digitizing board</li> </ol>	1. Computer set with CAD software – Machine to



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			3. Printers / plotters	<p>trainee ratio 1:15</p> <p>2. Digitizing board – Machine to trainee ratio 1:30</p> <p>3. Printers / plotters – Machine to trainee ratio 1:30</p>
21.	Sewing Machine Operator	TC GMT 06	<p><b>1.</b> Industrial Sewing Machine</p> <p><b>2.</b> Buttonhole and buttoning machines for demo purpose:</p>	<p>1. Sewing Machines: Machine to trainee ratio 1:2</p> <p>2. Buttonhole and buttoning machines for demo purpose: Machine to trainee ratio 1:15</p>
22.	Pattern Maker	TC GMT 07	Table for Pattern Making (minimum size 60X40 inches)	Machine to Trainee ratio 1:5
23.	Fabric Checker	TC GMT 08	<p><b>1.</b> Checking table (minimum size 64X40 inches)</p> <p><b>2.</b> Fabric inspection machine</p>	<p>1. Checking table – Machine to Trainee ratio 1:5</p> <p>2. Fabric inspection machine – Machine to Trainee ratio 1:10</p>
24.	Fabric Cutter	TC GMT 09	Cutting machines – straight/bend/circular	Machine to Trainee ratio 1:10

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25.	Over-lock and Flat Lock Machine Operator	TC GMT 10	<b>1.</b> Overlock Stitching machines with accessories <b>2.</b> Flatlock Stitching machines with accessories	Machine to Trainee ratio 1:4
26.	Sewing Machine Mechanic	TC GMT 11	Sewing machine, Over lock machine, Flat lock machine, Feed of the arm machine, Bartack machine, Button stitch machine, Button hole machine	Machine to Trainee ratio 1:10 (for respective machines)
27.	Handloom Weaver (Frame Loom)	TC HLM 01	Handloom Machine	Machine to Trainee ratio 1:5
28.	Hand Dyeing Operator	TC HLM 02	Dye Bath/Dyeing Vat and burners	Machine to Trainee ratio 1:5
29.	Block Printing Operator	TC HLM 03	In case of production units existing facility of blocks and printing table and in case of other Training Institutes printing table with blocks of different design and suitable no. of washers and boiler for steaming	Machine to Trainee ratio 1:4
30.	Dobby Handloom Weaver	TC HLM 04	Dobby Handloom	Machine to Trainee ratio 1:5
31.	Jacquard Handloom Weaver	TC HLM 05	Jacquard handloom	Machine to Trainee ratio 1:5

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32.	Jute Selection and Batching	TC JUTE 01	<ol style="list-style-type: none"><li>1. Jute Spreader Machine with other equipments</li><li>2. Jute Softener Machine with other equipments</li></ol>	Machine to Trainee ratio 1:20
33.	Jute Carding	TC JUTE 02	<ol style="list-style-type: none"><li>1. Jute Breaker carding Machine with other equipments</li><li>2. Jute Finisher Carding Machine with other equipments</li></ol>	Machine to Trainee ratio 1:20
34.	Jute Drawing	TC JUTE 03	<ol style="list-style-type: none"><li>1. Push Bar drawing machine</li><li>2. Mack high Push Bar drawing machine</li><li>3. Screw Grill/Spiral drawing machine</li></ol>	Machine to Trainee ratio 1:20
35.	Jute Spinning and Twisting	TC JUTE 04	Jute spinning Frame Machines	Machine to Trainee ratio 1:20
36.	Jute Spinning and Winding	TC JUTE 05	<ol style="list-style-type: none"><li>1. Jute warp winding machine</li><li>2. Cop winding Machine</li></ol>	Machine to Trainee ratio 1:20
37.	Jute Winding	TC JUTE 06	Any of Jute warp winding machine and any of Cop winding Machine in working condition	Machine to Trainee ratio 1:20
38.	Jute Beaming and Sizing	TC JUTE 07	Beaming and Sizing Machine	Machine to Trainee ratio 1:20



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39.	Jute Weaving (Shuttle less)	TC JUTE 08	Any shuttle less loom fitted with weavers beam in working condition.	Machine to Trainee ratio 1:10
40.	Jute Weaving	TC JUTE 09	Any Shuttle loom fitted with weavers beam in working condition.	Machine to Trainee ratio 1:10
41.	Jute Sack Sewing and Finishing	TC JUTE 10	Damping machine, calendering machine, Cloth measuring machine, cutting machine and Bag sewing machine and bale pressing machine.	Machine to Trainee ratio 1:30 (For respective machine)
42.	Electroplating and Effluent Treatment	TC MET 01	<ol style="list-style-type: none"> <li>1. Buffering, Grinding &amp; Polishing machine</li> <li>2. Electro plating relevant line tanks</li> <li>3. Effluent Treatment plant</li> </ol>	<ol style="list-style-type: none"> <li>1. Buffering, Grinding &amp; Polishing machine (Machine to Trainee ratio 1:10)</li> <li>2. Electro plating relevant line tanks (Machine to Trainee ratio 1:4)</li> <li>3. Effluent Treatment plant (Machine to Trainee ratio 1:30)</li> </ol>
43.	Basic Art of Engraving	TC MET 02	Engraving equipments [Working Table (Tripod Stand), Engraving Kalam and Hammers]	Machine to Trainee ratio 1:1
44.	Lacquering and Painting	TC MET 03	<ol style="list-style-type: none"> <li>1. Buffering, Grinding &amp; Polishing machine</li> <li>2. Degreasing machine</li> <li>3. Spray booth</li> <li>4. Spray Gun</li> </ol>	<ol style="list-style-type: none"> <li>1. Buffering, Grinding &amp; Polishing machine (Machine to Trainee ratio 1:10)</li> <li>2. Degreasing machine (Machine to Trainee ratio 1:30)</li> </ol>



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			<ul style="list-style-type: none"> <li>5. Oven with backing</li> <li>6. Fresh Air System/Compressor</li> </ul>	<ul style="list-style-type: none"> <li>3. Spray booth (Machine to Trainee ratio 1:30)</li> <li>4. Spray Gun (Machine to Trainee ratio 1:30)</li> <li>5. Oven with backing (Machine to Trainee ratio 1:30)</li> <li>6. Fresh Air System/Compressor (Machine to Trainee ratio 1:30)</li> </ul>
45.	Packaging	TC MET 04	Packaging machine (Sealing Equipments, Strapping equipments, wrapping machine, coding and labeling equipment)	Machine to Trainee ratio 1:30
46.	Powder Coating	TC MET 05	<ul style="list-style-type: none"> <li>1. Pre treatment line of tanks for Phosphating / chromating</li> <li>2. Dryer Oven</li> <li>3. Spray booth</li> <li>4. Powder Spray Gun</li> <li>5. Curing Oven with backing</li> <li>6. Fresh Air System/Compressor</li> </ul>	<ul style="list-style-type: none"> <li>1. Pre treatment line of tanks for Phosphating / chromating (Machine to Trainee ratio 1:4)</li> <li>2. Dryer Oven (Machine to Trainee ratio 1:30)</li> <li>3. Spray booth (Machine to Trainee ratio 1:30)</li> <li>4. Powder Spray Gun (Machine to Trainee ratio 1:30)</li> <li>5. Curing Oven with backing (Machine to Trainee ratio 1:30)</li> </ul>



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				6. Fresh Air System/Compressor (Machine to Trainee ratio 1:30)
47.	Quality Control	TC MET 06	Facility of testing lab which comprises testing equipments like Toxic Metal testing, drop tester, moisture meter and corrosion Resistance testing, Salt Spray unit, etc	Machine to Trainee ratio 1:30
48.	Computer Aided Design	TC MET 07	Computer system installed with CAD software	Machine to Trainee ratio 1:2
49.	Welding and Soldering	TC MET 08	<ol style="list-style-type: none"><li>1. Welding Machine</li><li>2. Soldering Equipments</li></ol>	<ol style="list-style-type: none"><li>1. Welding Machine (Machine to Trainee ratio 1:10)</li><li>2. Soldering Equipments (Machine to Trainee ratio 1:2)</li></ol>