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SPD
21/9/14

Gujarat Council of Vocational Training
Gandhinagar



1. Name of Course:

FIBC Technician

N.C.O. No. for Skills Covered:
(Please refer National Classification of
Occupations -2004 available
On www.dget.nic.in)

2. Engineering OR Non-engineering: ~~Non~~-Engineering

3. No. of students per batch: 20

4. Duration in Hours. : 1092

5. Duration in Month: 6 @ 42 hours/Week.

6. Examination Scheme:

No.	Name of Subject	Teaching Hours during full course.	Maximum Marks. (Excluding Session)	Minimum Marks required for Passing (Excluding Session).	Session Marks if any.
Subject-1	Theory	156	50	18	-
Subject-2	Practical	936	100	60	-
Subject-3					
Subject-4					
Subject-5					

7. Entry qualification for Trainee:

Minimum entry qualification (Essential):	Minimum 7 th Pass & 18 Years above
Desirable:	10 th Pass

8. Minimum qualification for Trainer:

Minimum qualification (Essential):	Diploma / BE (in any discipline) with 3 years experience.
Desirable:	Diploma / BE (Textile) with 3 years experience





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9. Syllabus Committee Member:

Sr. No.	Name	Organization	Designation	Technical Qualification	Experience in Years	Signature
1.	Mr. Ashutosh Roy	Rishi FIBC Solutions Pvt. Ltd., Ranu	Vice. President (QA)	B.Sc., PGDPPT.	21 Years	
2.	Mr. Moncy Jose	Rishi FIBC Solutions Pvt. Ltd., Ranu	GM (Production)	B.Sc., PGDPPT.	17 Years	
3.	Mr. Y R K Rao	Rishi FIBC Solutions Pvt. Ltd., Ranu	Sr. Manager - Projects	B.E. (Mech.)	22 Years	
4.	Mr. M.A. Vaghela	ITC, Tarsali, Vadodara	Principal	B.E. (Text. Engg.)	30 Years	
5.	Mr. M.K. Mavi	ITI, Dasrath, Vadodara	Principal	D.M.E.	23 Years	
6.	Mr. B.R. Vyas	RDD Office, Vadodara	Technical Officer	Diploma in Tools Engg.	33 Years	

10. Terminal Skills of trainee: (Should be well defined and having reference to NCO):

The trainee, after successful completion of training, will have following skills...

1. Operate different types of Machines for Packing of FIBC Bales and Pallets.
2. Operate Automatic Fabric Cutting Machine.
3. Operate FIBC Quality Inspection operations with Metal Detector Machine, Printing Machine and Bag Cleaning Machine.

(please attach separate sheet, if more space is required)





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11. Approximate cost of Tools / Equipments / Machinery for Starting one batch of the course:

Rupees

Reference Year

2014

12. Area required for practical / Workshop for one batch 40 Sq. Meter

13. Minimum Power connection required 25 K.W.

14.1 No of items in Standard list of Machinery: List attached

14.2 No of items in Standard list of Shop outfit: List attached

14.3 No of items in Standard list of Trainee Tool-Kit: List attached

***** FOR OFFICIAL USE *****

Approved by GCVT in ~~Governing Body~~ meeting on : 20-09-2014

Syllabus implemented w.e.f. admission session Next Session

Revision History :
1. Revision No..... Revision Date.
2. Revision No..... Revision Date.
3. Revision No..... Revision Date.





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Standard List of Machinery - Equipment / Shop-outfit / or Trainee Tool kit
For Trade of FIBC Technician

Sr. No.	Description of Item with detailed specifications	Item type i.e. Machinery / Equipment OR Shop Outfit OR Trainee Toolkit	Quantity Required per one Batch of Students	Quantity Required per one Batch of Students for Instructor	Total Quantity Required (Total of previous two columns)
1.	Heat Cutting table	Machinery	01	0	01
2.	Metal Detector M/C	Machinery	01	0	01
3.	Printing M/C	Machinery	01	0	01
4.	Bale Press	Machinery	01	0	01
5.	Wrap Reel	Machinery	01	0	01
6.	Bag Cleaning M/C	Machinery	01	0	01
7.	Nichrome Wire	Shop Outfit	500 gm	0	500 gm
8.	Apron, Cap, gloves and chappal.	Trainee Toolkit	10	1	11
9.	Folding Frame or plain long table.	Trainee Toolkit	5	0	5



Name of Syllabus: FIBC Technician
Sector: Textile
Terminal Competency:

Theory: - Week 1-3

- a) Basic Awareness about industrial environment.
- b) Difference between food grade & Non- Food grade industry.
- c) Types of FIBC Bags.
- d) Usage of liners.
- e) Types of Stitches.
- f) American Institute of Baking- AIB Awareness & importance with norms.
- g) British Retail Consortium- BRC Awareness & Importance with norms.

Theory: - Week 4-6

- a) Environment, Health Safety Procedure.
- b) Personal Safety.
- c) Details of Safety Instrument.
- d) Mock Drill.
- e) First Aid.
- f) Fire safety.

Theory:- Week 7-9

- a) Types of cutting machine:-
 - 1) Ultrasonic Cutting Machine
 - 2) Manual Cutting Machine
 - 3) Heat Cutting Machine
 - 4) Webbing Cutting Machine
 - 5) Ultra Webbing Cutting Machine
- b) Difference between Ultrasonic & heat cutting Machine

Theory:- Week 10-12

- a) Difference between manual fabric machine & Auto fabric cutting machine.
- b) Heavy duty fabric feeding roller mechanism.
- c) Lay flat FIBC liners open from top & sealed at bottom.

Theory:- Week 13

- a) FIBC Printing machine details, operation instructions & safety.
- b) Usage of ink & other material.
- c) Printing station following features:-
 - 1) Ceramic Anilox Blade
 - 2) Chamber Doctor Blade
 - 3) Plate cylinder Group
 - 4) Pneumatic Ink Pump
 - 5) Drying & Exhaust System
 - 6) Central Exhaust System



Theory: - Week 14-16

- a) FIBC Webbing (Belt) Cutting machine details.
- b) Webbing Machine micro process & controller process.
- c) Sharp edge cutting insulated blade with cartridge heater.
- d) Webbing needs to be cut to required length to make lifting loops for the FIBC's.

Theory: - Week 17-19

- a) Manual spout cutting Machine.
- b) Spout holes cutting in fabric before stitching.
- c) High performance automatic fabric cutting machines with/ without option of spout cutting.

Theory: - Week 20-23

- 1) **Basic awareness about below Machine:-**
 - a) Strength checking Machine.
 - b) Bag cleaning Machine.
 - c) Bag cleaning machine efficiency for cleaning bags in height range of 1000 mm to 2500mm.
 - d) How automatic bag cleaning machine ensures efficient removal of loose particle.

Theory: - Week 24-25

- a) Wrapping of Rolls and Bale.
- b) System wrapping fabric with max. 30cm width.
- c) Hydraulic pallet & Bale press Machine.

Theory: - Week 26

- a) Revision & examination.

Practical: - Week 1-3

- 1) **Work Process for Fabric Cutting Machine:-**
 - a) How to clean machine before fabric cutting.
 - b) How to keep fabric into cutting stand.
 - c) Identification for damage fabric/cross cutting fabric.
 - d) Identification of wastage.
 - e) Fabric cutting piece checking by operator.
 - f) Fabric cutting comparison with sample.
 - g) Prepare report for non conforming (rejected) material.



Practical: - Week 4-6

2) Work Process for Webbing Cutting Machine:-

- a) Usage of webbing machine.
- b) How automatic webbing cutting machine works for webbing cutting.
- c) Identify webbing cutting length.
- d) How to segregate wastage from good pieces.
- e) How cutting and marking is done automatically through PLC controlled system.

Practical: - Week 7-9

3) Work Process for Fabric Printing Machine

- a) How to operate machine
- b) Prepare printing block as per requirement.
- c) Printing of fabric as per requirement.
- d) Identification of ink & procedure of filling ink.
- e) Classification of printing size, shade & other dimensions.
- f) Checking of require thickness into printing blocks.

Practical: - Week 10-12

4) Rewinding Work Process

- a) Rewind station system
- b) Rewind web tension control system

Practical: - Week 13-14

5) Metal Detector Operation Process

- a) Machine operation accuracy checking with ferrous, non-ferrous & SS samples.
- b) Accuracy checking of ferrous (1.2mm), non-ferrous(1.8mm) & SS(2.2mm)
- c) Metal detector machine symbol- alarm & red indication details.
- d) Maintenance work at the time of Metal detector machine breakdown.
- e) Validation of machine after maintenance work.

Practical: - Week 15-17

6) Bag Cleaning Machine Process

- a) Phases of Bag cleaning :-
 - 1) Clean from Tap.
 - 2) Clean from Bottom.
 - 3) Clean from Top & Bottom.
- b) How to set timing for delay cleaning machine.
- c) Adjust the height of hopper.
- d) Spout of the bag setting inside the hopper & nozzle.



Practical: - Week 18-20

7) Liner Gluing Process

- a) How to set temperature of Tank, Hose & Gun.
- b) Temperature capacity details of Tank, Hose & Gun.
- c) Adjustment process for frame, gun hanger and Liner setting in frame.
- d) Liner size & thickness checking.
- e) How to set pump air pressure.

Practical: - 21-23

8) Liner Forming Process

- a) How to set temperature according to thickness of liner.
- b) How to set cutting length & diameter of liner.
- c) Polyethylene liners design to shape an exact shape of the FIBC including spouts for inlet/ outlet.
- d) Spout use for heat sealing for adding sanitation & protection.

Practical: - Week 24 to 25

9) Bale Press Process

- a) Bale Press machine operation & break down information & safety.
- b) Operation difference between hydraulic Bale press machine & waste hydraulic Bale press machine.
- c) Technical specification for Hydraulic Pallet & Bale Press:-
 - 1) Pressing Pressure & Operating Pressure.
 - 2) Cabin length, width & height.
 - 3) Stroke length & stroke speed.
 - 4) Power consumption details.
 - 5) Ensure Space require capacity from length, width & height.
- d) Automatic ejection system for finished pallet & Bales.

Practical: - Week 26

- a) Revision & examination.



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Signature:

1 Mr. Ashutosh Roy

2 Mr. Moncy Jose

3 Mr. Y R K Rao

4 Mr. M.A. Vaghela

5 Mr. M.K. Mavi

6 Mr. B.R. Vyas

