

MES COURSE MODULES

IN

TEXTILES – COTTON SPINNING

1. Module Name	Draw frame Tenter & Cleaner
2. Sector	Textiles – Cotton Spinning
3. Code	SPG 701
4. Entry Qualification	Minimum 7 th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to manage both breaker and finisher draw frames, creeling the can, attending the breaks and producing uniform sliver. Also, he would be able to dismantle and clean all parts of draw frame, checking the worn-out parts and assembling the parts with the guidance of fitter
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Checking the stop motions, the mixing being worked and the colour codes used. • Creeling the cans in the back and running the machine • Inserting empty can in the coiler • Doffing full can • Keeping the machine surroundings always clean • Stopping the machine for cleaning, removing the cans in the back and in front • Removing the top rollers after releasing the pressure • Cleaning the gears, coiler, drafting zone, creel table, fans, suction box and the sides of the machine • Replacing any worn parts found • Wiping the machine with clean dry cloth after cleaning • Checking the top arm pressure • Using of safety gadgets like caps, masks and shoes and verifying the safety stop motions 	<ul style="list-style-type: none"> • Importance of draw frame, various parts in a draw frame and their functions. • Precautions to be taken while working • Knowledge about humidity conditions and the working of cards • Normal defects in draw frame sliver and actions needed to correct them • Importance of cleanliness and personal safety • Fire fighting and First aid • Safety gadgets in a spinning factory

<ul style="list-style-type: none">• Mock drill for fire fighting and first aid.	
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8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Draw frame	1pair
Nose masks	20
Caps	20
Empty Cans	20
Full cans	20
Brushes	20
Chalk Powder	1 kg

1. Module Name	Sliver lap and Ribbon lap tenter
2. Sector	Textiles – Cotton Spinning
3. Code	SPG 702
4. Entry Qualification	Minimum 7th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to run sliver lap and ribbon lap machines, adjust the lap length, creel the cans and supply laps to ribbon lap machine, creel the sliver laps & supply laps to combing machine,
6. Duration	500 hours
7. Course content:	

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Understanding the mixings, hanks and the colour codification used. • Creeling the required number of cans and taking the sliver forward • Creeling the Sliver laps and taking the drafted web forward on the table to the lap forming unit • Installing the lap spool in lap forming unit • Adjust the lap length • Running the machine and producing the laps to be fed to ribbon lap machine • Bringing back the empty spools from ribbon lap machine. • Running the machine and producing the laps to be fed to Combing machine • Bringing back the empty spools from combing machine. • Keeping the work area and surroundings always clean • Using of safety gadgets like caps, masks and shoes. • Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> • Concepts of Sliver lap and Ribbon lap, the requirement of combers, the mixings and hanks • Precautions to be taken while feeding the cans & Sliver laps and producing the laps. • Importance of cleanliness and personal safety • Identifying specified places for keeping laps depending on the type of mixing and hanks • Fire fighting and first aid • Safety gadgets in a cotton factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Sliver lap machine	1
Ribbon lap machine	1
Empty spools	18
Nose masks	20
Caps	20
Card cans	As needed
Full Sliver lap	6

1. Module Name	Speed frame Doffer & Cleaner
2. Sector	Textiles – Cotton Spinning
3. Code	SPG703
4. Entry Qualification	Minimum 5th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to remove the full doff, putting new bobbins, piecing the ends, feeding slivers, cleaning the clearer rollers, drafting zone and the empty bobbins. Also, he would be able to open and clean simple parts of a speed frame machine and refit the parts.
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Collecting empty bobbins from ring frames and cleaning them • Arranging the bobbins in each frame by referring to the colour codes in practice • After stopping the machine and aligning the flyers, lifting the flyers and removing the full bobbins • Putting empty bobbins on the spindle tube and lapping the rove gently • Attending the breaks • Delivering the full bobbins to ring frame section • Stopping machine for cleaning and removing the cans at creel • Take the doff out of the spindles • Opening the covers and cleaning the spindle driving shaft, bobbin drives gears, drafting zone, creel etc. • Oiling the parts as needed • Checking the condition of aprons and cots and replacing the worn-out parts. • Keeping the work area and surroundings always clean • Using of safety gadgets like caps, masks and shoes. • Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> • Concepts and details of working of a Speed frame and the quality requirements • Importance of speed frames and taking the doff • Precautions to be taken while Cleaning the parts, doffing and restarting the machines • Identifying specified places for keeping laps depending on the type of mixing and hanks • Importance of cleanliness and personal safety • Fire fighting and First aid • Safety gadgets in a spinning factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Speed frame	1
Empty bobbins	3 sets
Brushes – Bottle cleaning brushes, long brushes, flat brushes	20 sets
Nose masks	20
Caps	20
Bags for collecting wastes	20
Tool kit	20

1. Module Name	Ring frame Machine Operator
2. Sector	Textiles – Spinning
3. Code	SPG 704
4. Entry Qualification	Minimum 7th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be to creel the bobbins, take the end through drafting zone, piecing the ends, replacing the travellers, and look after the machine. Also he would be able to remove the full doff, putting new empty cops, cleaning the clearer rollers, drafting zone and the empty bobbins.
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Creeling the speed frame bobbins and taking the rove through drafting zone and piecing the ends • Cleaning the drafting area with a stick and remove the fluff and keep the drafting zone always clean • Replacing the travellers as needed • Checking and pressing the empty cops after doffing before restarting the machine • Removing the suction box wastes from time to time • Cleaning the spindle rails, creel and drafting area • Collecting empty bobbins from winding section and cleaning them • Arranging the bobbins in crates for doffing for each machine by referring to the colour code in practice • Removing the full cops and putting empty cops, pressing them and piecing the ends after restarting of the machine • Delivering the full doffs to winding after weighing. • Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> • Importance of ring frames & taking doff and precautions to be taking while working • Details of working of a Ringframe • Precautions to be taken while doffing and restarting the machines • Importance of cleanliness and personal safety • Fire fighting and First aid • Safety gadgets in a spinning factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Ring frame	1
Empty bobbins	3 sets
Brushes	20
Sider bag	20
Mask and head cover	20 sets

1. Module Name	Open-end Machine Tenter
2. Sector	Textiles – Cotton Spinning
3. Code	SPG 705
4. Entry Qualification	Minimum 7th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to creel cans, clean the rotors and piece the ends, doff the full cheese and look after the machine
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Checking the rotors and cleaning before creeling a can • Feeding sliver to opener roller. • Taking an end from the already wound cheese and inserting in the rotor to piece the ends • Attending to breakages • Doffing the full cheeses • Removing the dusts collected from time to time • Following the safety precautions while working. • Using of safety gadgets like caps, masks and shoes and verifying the safety stop motions • Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> • Basics of Open-end machine, the rotors and opening rollers, the condition of take-up rollers. • Precautions to be taking while creeling the cans and piecing • Importance of cleanliness and personal safety • Fire fighting and first aid • Safety gadgets in a Spinning Factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Open-end machine	1 machine
Drawing cans	As needed
Sider's bag	20
Empty tubes	As needed

1. Module Name	Card Tenter –High speed / Super high speed cards
2. Sector	Textiles – Cotton Spinning
3. Code	SPG 706
4. Entry Qualification	Minimum 7th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to work high speed / super high speed card and give good quality sliver with required efficiency
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Running bare card before feeding cotton • Feeding lap • Collecting the web and condensing to feed to the calender roller and produce a sliver • Operating the control panel • Studying the signals and taking actions • Inserting empty cans and taking out doffed cans • Keeping the machine surroundings always clean • Using of safety gadgets like caps, masks and shoes and verifying the safety stop motions • Mock drill for fire fighting and first aid 	<ul style="list-style-type: none"> • Importance of carding, various parts in a card and their functions. • Salient features of high speed and super high speed cards • Precautions to be taken while working • Knowledge about humidity conditions and the working of cards • Normal defects in card web and actions needed to correct them • Importance of cleanliness and personal safety • Fire fighting and first aid • Safety gadgets in a Spinning Mill.

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
High speed / Super high speed cards	1
Nose masks	20
Caps	20
Tie bag for contamination picking	20
Cans	10

1. Module Name	Speed frame Machine Operator
2. Sector	Textiles – Cotton Spinning
3. Code	SPG 707
4. Entry Qualification	Minimum 7th Standard and 14 years of age
5. Terminal Competency	After completion of the course, the trained person would be able to look after the complete machine by creeling the cans, taking sliver through the drafting zones, cleaning the clearer rollers, able to remove the full doff, putting new bobbins piecing the ends and winding them on bobbin and running the speed frame and doffing.
6. Duration	500 hours

7. Course content:

Practical Competencies	Under pinning Knowledge (Theory)
<ul style="list-style-type: none"> • Creeling the cans and taking the sliver forward • Putting empty bobbins on the spindle tube and lapping the rove gently • Attending the breaks and piecing the ends • After the bobbins are full, releasing the cone drum and stopping the machine • Collecting empty bobbins from ring frames and cleaning them • Arranging the bobbins in each frame by referring to the colour codes in practice • After stopping the machine and aligning the flyers, lifting the flyers and removing the full bobbins • Restarting the machine after doffing • Checking the quality of rove and getting the rogue spindles attended • Delivering the full bobbins to ring frame section • Using of safety gadgets like caps, masks and shoes. • Mock drill for fire fighting and first aid. 	<ul style="list-style-type: none"> • Details of working of a speed frame, doffing the bobbins and restarting the machine • Importance of speed frames, taking the doff and the quality requirements. • Precautions to be taken while running, doffing and restarting the machines • Importance of cleanliness and personal safety • Fire fighting and First aid • Safety gadgets in a spinning factory

8. Tools and Equipments for a batch of 20 trainees

Description	Quantity
Speed frame	1
Empty bobbins	3 sets
Brushes	20
Draw frame cans	As per the number of spindles