

Ginning and Spinning Operation

LEVEL – I

Based on March 2022, Curriculum Version 1



Module Title: - Performing Tasks to Support Production

Module code: IND GSO1 M03 0322

Nominal duration: 30Hour

Prepared by: Ministry of Labour and Skill

August, 2022
Addis Ababa, Ethiopia

Table of Contents

Acknowledgment	3
Acronym	4
Introduction to the Module	5
Unit one: Perform general production- related duties and tasks	6
1.1. Duties and tasks to support production	7
1.1.1. Clarify duties and tasks by production worker textile industry	7
1.1.2. Duties production worker to support production	7
1.1.3. Tasks and responsibilities to be performed by production Worker	8
1.2. Organizing and checking equipment and tools	9
1.2.1. Required tools and equipment's to support production	9
1.3. Adequate knowledge and skill to perform tasks	9
1.4. Performing tasks to meet requirements	10
Self-Check 1.1	11
Operation Sheet-1.1	12
LAP Test 1.1	13
Unit Two: Perform general cleaning duties	14
2. Perform general cleaning duties	Error! Bookmark not defined.
2.1 cleaning duties	15
2.2. Selecting and using personal safety equipment	16
2.3. Appropriate cleaning equipment for specific tasks	17
2.4. Procedures for handling, storage and disposal of cleaning liquids	18
2.4.1 Cleaning and housekeeping procedures for handling, storage and disposal of cleaning liquids	18
2.4.2. Check cleaning according to the requirement	21
Self-Check 2.2	23
Operation Sheet-2.2	24
LAP Test 2.2	25
Unit three: Operate specialized machine	26
3.1. Identifying and operating specialized machines	27
3.1.1 Definition and functions of spinning and ginning	27
3.1.2 Operating fly, dust and roller lap picker	27
3.1.3 Operating vacuum cleaner machine	28
3.2. OHS practices	30
3.3. Assessing for compliance with quality standards and production specifications	31
3.4. Checking and adjusting specialized machine during production	32
3.4.1. Adjustment (setting up) of vacuum cleaner machine	32
3.4.2. Adjustment procedures of dust and fly picker (collector)	33
Self-Check 3.1	35
Operation Sheet-3.1	36
LAP Test 3.1	37



Unit Four: Assist in transfer or removal of materials or products where required	38
4.1 Receiving, organizing, confirming and recording requests according to specified procedures	38
4.1.1. Request and communicate relevant information according to specified procedures	38
4.2. Assistance required in transfer or removal of materials or products.....	40
4.2.1. Transfer or removal of materials	40
4.3. Using appropriate methods and manual handling techniques	40
4.3.1 Manual handling techniques	40
Self-Check 4.1	42
Operation sheet 4.1	43
LAP Test 4.1	44
Unit Five: Complete documentation	45
Self-Check 5.1	49
Reference	50

Acknowledgment

Ministry of Labor and Skills wish to extend thanks and appreciation to the many representatives of TVET instructors and respective industry experts who donated their time and expertise to the development of this Teaching, Training and Learning Materials (TTLM).

Page 3 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1
			August, 2022

Acronym

LAP: learning activity performance

MHOR: manual handling operation regulation

OHS: occupational health and safety

PPE: personal protective equipment

SOP: standard operating procedure

Introduction to the Module

In ginning and spinning production; there are lots of tasks done by the operator to support production. These tasks are helps to improve quality of product, production efficiency, worker safety, and production machine life time and customer satisfaction. Performing a job task by an employee needs first make friendly environment at work away from stress and pressure.

Secondly it needs assistance of the employee through providing him with all necessary tools. This module is designed to meet the industry requirement under the ginning and spinning occupational standard, particularly for the title: **tasks to support production**

This module covers the units:

- production- related duties and tasks
- cleaning duties
- specialized machine
- transfer or removal of materials or products where required
- Complete documentation

Learning Objective of the Module

- Perform general production- related duties and tasks
- Perform general cleaning duties
- Operate specialized machine
- Assist in transfer or removal of materials or products where required
- Complete documentation

Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

1. Read the information written in each unit
2. Accomplish the Self-checks at the end of each unit
3. Perform Operation Sheets which were provided at the end of units
4. Do the “LAP test” giver at the end of each unit and
5. Read the identified reference book for Examples and exercise

Page 5 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
--------------	--	--	----------------------------

Unit one: Perform general production- related duties and tasks

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Duties and tasks to support production
- Organizing and checking equipment and tools
- Adequate knowledge and skill to perform tasks
- Performing tasks to meet requirements

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Required duties and tasks are clarified with a supervisor or team member.
- Required equipment and tools are organized, and checked to confirm good working condition.
- Questions are asked to confirm procedures and ensure own knowledge and skill is adequate to perform tasks.
- Tasks are performed to meet requirements

1.1. Duties and tasks to support production

1.1.1. Clarify duties and tasks by production worker textile industry

Production workers are responsible for mass production of a specific product in a manufacturing or production facility.

1.1.2. Duties production worker to support production

Before starting production first select the required personnel to produce the required product. Team members are selected because they have particular skills that are required to complete project tasks.

The Team Member's role is to successfully perform the tasks that have been allocated, keeping the project manager informed of progress as well as any issues that may arise. Team membership often changes as a project moves through its development. This means there are frequently two types of team member:

Core Team Member - a full time role on the project but not necessarily for the duration of the project.

Extended Team Member—have a part time role on the project. These team members will usually have their regular job to do, or they may be from an outside company.

Depending on the industry and company, production worker duties are listed below

- Operating machinery,
- Assembling materials or equipment,
- Carrying out inspections and
- Quality control.

Typical career advancements for production workers include a managerial or supervisory role. The supervisor attends solely to the responsibilities of the supervisory role. However, in many organizations, the supervisor is responsible not only for supervisory responsibilities, but also for product-line responsibilities, that is, to get a product or service out the door. Products and services generate revenue. Consequently, the role of supervision sometimes takes a "background" role to the product-line role.

Page 7 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
--------------	--	--	----------------------------

1.1.3. Tasks and responsibilities to be performed by production Worker

Tasks to be performed by production worker are listed below

- Feed raw materials into machinery
- Assemble goods on production lines
- Monitor the production process
- Carry out basic quality and testing checks
- Store goods and raw materials properly in our warehouse
- Use lifting equipment and forklift trucks to fulfill orders
- Pack goods for shipping
- Maintain equipment and work areas

The responsibilities assigned to individual team members may vary but typically will include:

- Understanding the purpose and objectives of the project
- Ensuring a correct balance between project and non-project work
- Working to timescales and within cost constraints
- Reporting progress against plan
- Producing the deliverables/products to agreed specifications
- Reviewing key project deliverables/products
- Identifying issues
- Identifying risks associated with the project
- Working together as a team
- Contributing towards successful communication
- Contributing towards positive motivation

Supervisors typically head a department of employees or an outlet of a business. These individuals are involved with overseeing the quality of employee performance, resolving conflicts within the workplace and completing mostly administrative tasks.

A supervisor may also be directly involved with the hiring and firing of employees. Whereas a team leader often does the same level of work as the members of his team, a supervisor is in a higher position of authority and completes different tasks. Should a project he helps

Page 8 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
--------------	--	--	----------------------------

supervise fail, he is not held as responsible as a team leader or individual members of the project team.

1.2. Organizing and checking equipment and tools

1.2.1. Required tools and equipment's to support production

Required tools and equipment's for performing task to support productions are:-

- Cleaning Equipment
- Chemicals and detergents
- Use of Hand Tools
- Pallet Truck
- Hand Trolleys
- Weighing Equipment

1.3. Adequate knowledge and skill to perform tasks

Every field needs skill and knowledge to perform the task (job) especially in the industry production an employee must have different skill and knowledge. These skills and knowledge are;

- Problem-Solving
- Ability to Work on a Team
- Leadership Qualities
- Communication Skills
- Intelligence and Competency
- Time Management
- Technical Proficiency
- Organizational Skills
- Creativity and Innovation
- Analytical Skills
- Customer service
- Strategic thinking
- Industry and product knowledge

Page 9 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
--------------	--	--	----------------------------

1.4. Performing tasks to meet requirements

By using different skills and knowledge we can meet the requirement and upgrade the production processes in any one of several ways. The important tasks that used to meet the requirement and upgrade the production process are listed bellow

- Analyze your current workflows
- Modernize your processes and technologies
- Pay particular attention to planned maintenance
- Train your staff
- Keep your workplace neat and tidy
- Keep well stocked
- Continuous improvement
- Performance support
- Workforce planning
- Training Within Industry

Page 10 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

Self-Check 1.1

Written Test

Directions: Answer all the questions listed below

Part I. Matching

Direction: match column “A” with descriptions in column “B” .write the correct answer on the provided space

A	B
-----1.core team member	a. tools and equipment for performing task
-----2.monitor production process	b. worker responsibility
-----3.weighing equipment	c. full time role in the project
-----4.extended team member	d. a part time role in the project

Part II. Choice

Choose the correct answer for the following questions

- is a task used to meet requirement and upgrade the production
A. Weighing equipment B. Work force planning C. Quality control D. None
- skills and knowledge used to improve the production
A. strategic thinking B. train the staff B. problem solving D. A & C

Part III. Short answer

Give short answer for the following question

- Why it is important knowing the duties and responsibilities of supervisor and other team member?
- What are the required tools and equipment?
- Clarify duties and tasks by supervisor or team member?

Operation Sheet-1.1

OPERATION TITLE: Perform cleaning in general production area

PURPOSE: To train our trainee's about Performing cleaning in general production by studying all steps and procedures.

CONDITIONS OR SITUATIONS FOR THE OPERATIONS:

The operation process can be performed by following the procedure and steps.

EQUIPMENT TOOLS AND MATERIALS:

Required tools and equipment are cleaning equipment, chemicals and detergents, use of hand tools, pallet truck, hand trolleys, weighing equipment

PROCEDURE:

- Read the information sheet well
- prepare the required materials and equipment
- put each materials separately based on standard
- Perform general cleaning in production Like cleaning rooms, toilet, production area, corridor and other.

PRECAUTIONS:

The operation can be performed by applying standard occupational health and safety rule.

QUALITY CRITERIA:

The final appearance of the cleaned area can be checked its quality by the trainers and trainees .If there is a quality problem checking again and if they completed the unit for the Perform cleaning in general production area pass to next unit.

Page 12 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

LAP Test 1.1	Practical Demonstration
--------------	-------------------------

Instructions: Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task 1: Perform general production related duties and tasks.

Task 2: perform arrangement of required tools and equipment.

Task 3: Clarify duties and tasks by supervisor or team member

Unit Two: Perform general cleaning duties

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Cleaning duties
- Selecting and using personal safety equipment
- Appropriate cleaning equipment for specific tasks
- Procedures for handling, storage and disposal of cleaning liquids
- Assessing cleaning against housekeeping requirements

This guide will also assist you to attain the learning outcomes stated in the cover page.

Specifically, upon completion of this learning guide, you will be able to:

- Cleaning duties are clarified to establish requirements.
- Personal safety equipment, where needed, is selected and used correctly according to WHS practices.
- Appropriate cleaning equipment for specific tasks is determined, prepared and used.
- Procedures for handling, storage and disposal of cleaning liquids are implemented according to manufacturer specifications.
- Cleaning is assessed against housekeeping requirements

2.1 cleaning duties

Cleaning is the process of removing unwanted physical substances from an object or environment. Cleaners are required to undertake the following duties as directed by the Supervising Officer, using the prescribed methods and frequencies in line with the requirements of the cleaning specification.

1. Emptying waste bins or similar receptacles, transporting waste material to designated collection points.
2. Sweeping floors with brushes or dust control mops.
3. Mopping floors with wet or damp mops.
4. Suction cleaning carpeted areas and “spot” cleaning carpets.
5. Using electrically powered scrubbing and polishing machines to burnish, scrub, polish and spray clean floors (after receiving proper instruction and training).
6. Using electrically powered pick up machines.
7. To dust, damp wipe, wash or polish furniture, ledges, window sills, external surfaces of cupboards, radiators, shelves and fitments.
8. To replenish consumable items (soap, toilet rolls, paper towels) if required within the contract.
9. To clean toilets, urinals, hand basins, sinks, baths, showers and drinking fountains.
10. The use of chemical agents as directed by the Supervising Officer in the discharge of cleaning operations or maintenance procedures, after receiving proper instructions and training.
11. To undertake wall washing or inside window pane cleaning to a height no greater than body height plus an arm’s extension from floor level, during periodic cleaning maintenance programmed.

Page 15 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

12. Cleaners employed in domestic science areas are required to clean cookers and work surface areas.

13. To carry out any other reasonable duties within the overall function of the job. Cleaners are to report to the caretaker or cleaner in charge any factors that are likely to affect his/her work which they consider that the caretaker or cleaner in charge should be aware.

Cleaning tools

- Brushes
- Dusters / dusting and washing rags
- Sprayers
- Pile lifter and auto sweeping
- Air blowing
- Vacuum cleaning
- Scrubbing machines
- Dry foam machine
- Extraction machinery
- Steam cleaners

To welcome the guest with a clean, comfortable surrounding and to give an aesthetic appeal to any areas of hotel the housekeeping department widely depends upon high quality, eco friendly cleaning tools. Cleaning tools comprises of cleaning aids and various chemicals. Cleaning equipments can be broadly classified as Manual and Mechanical Equipment. This OER deals with some of the manual cleaning equipment.

A variety of manual cleaning equipment is used in the accommodation venue and each is designed to perform certain tasks. Given here is a list and description of commonly used.

2.2. Selecting and using personal safety equipment

Workplace personal protective equipments /PPE/

Page 16 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

Personal safety (protecting) equipment's are any materials that are used to cover body parts to protect the worker from different disease-causing organisms, direct sun radiation and any other physical damages. This equipment's may be provided by purchasing from markets or by making from local materials.

The following are some of personal protecting materials.

Body safety cloth (tuta): - This cloth is a type of cloth which covers all the body part except the head and the fingers. It is used to protect the body from dirty.

Sun hat:- is the material, that is used to protect head from direct sun radiation

Goggle (Eye protecting device): - it is used to protect the eye from different damages

Safety shoe(Boot): -it is used to protect leg from sharpen and other damaging

Ear plugs:-it is used to protect ear from high volume sounds

Hand glove: - which is made of leather or strong flexible plastic rubber, it is used to cover fingers to protect from sharpen material

2.3. Appropriate cleaning equipment for specific tasks

Here are some of the essentials cleaning equipment that everyone should have for a clean home.

1. **Sponge:** There are a huge variety of sponges out there. It's nice to have a mix of regular sponges, some with an abrasive side, and then some with a microfiber side to tackle just about any dirty surface. If you plan on reusing a sponge, don't forget to clean it!
2. **White Towels:** I always keep a ton of white towels on hand. I picked up a couple of sets of organic cotton towels from Crate& Barrel, but you can find packs of these just about anywhere, even at the hardware store. They'll always match, you'll know when they're dirty, and they can be easily bleached and disinfected without getting ruined. An eco-friendly alternative is cut up old t-shirts.
3. **Squeegee:** These little tools are a must-have for keeping showers mold-free. They also work great on windows if that's a part of your cleaning regime.

4. **Microfiber Cloths:** Just like the white towels, getting a ton of these to keep on hand is super helpful. Microfiber can often get surfaces clean on its own or with just a little water, and shouldn't scratch or leave streaks behind.
5. **Spray Bottle:** Keep spray bottles on hand if you ever need to rinse something off with water, or like to make your own cleaners.
6. **Broom, Dustpan and Mop:** This is obvious. If you have any hard surfaces like wood, tile, cork, and linoleum, you will need a broom and mop to get them clean. Dustpans help with the process, and of course are crucial for quickly cleaning up any spills.
7. **Vacuum:** Whether it's a Rumba or a Dyson vacuum, these machines help keep floors clean and allergies at bay.
8. **Bucket:** A nice sized bucket can not only stow your cleaning supplies, but also be used for mopping, or any other of a multitude of household tasks.
9. **Scrub Brush:** A sponge or cloth isn't always going to work, so keep a bristle scrub brush on hand to use on tough stains.
10. **Toothbrush:** When you need something a little more detailed than a scrub brush, a toothbrush is a great option. Disinfect some old toothbrushes and put them to work on grout, sink rims and all the other nooks and crannies in your house.

2.4. Procedures for handling, storage and disposal of cleaning liquids

2.4.1 Cleaning and housekeeping procedures for handling, storage and disposal of cleaning liquids

Cleaning operation includes:

- Sweeping
- Dusting

Page 18 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

- Scrubbing
- Spotting
- Polishing and buffing
- Vacuuming
- Mopping

Housekeeping

Good housekeeping involves every phase of industrial operations and should apply throughout the entire premises, indoors and out. It is more than mere cleanliness. It requires orderly conditions, the avoidance of congestion, and attention to such details as an orderly layout of the whole workplace, the marking of aisles, adequate storage arrangements, and suitable provision for cleaning and maintenance.

Efficient production and a good working environment are complementary. The elimination of inefficiencies and accident hazards caused by unfavorable conditions in and about the workplace is essential in getting the job done properly and safely. The attention to these important details—which may be overlooked when management’s attention is concentrated upon such amenities as good cloakrooms, canteens, rest rooms, recreational facilities, etc.

A clean, well-ordered, attractive work environment sets the tone of your establishment. It encourages tidy work habits in employees. It helps reduce fatigue. It promotes good worker-management relations. It also gives a lift to morale, which is reflected in the quality of production and overall efficiency. Good housekeeping is also a good advertisement for your company. Customers and clients have more confidence in an organization when they see work being carried out efficiently in clean, pleasant, well ordered surroundings. There’s an even more important reason why good housekeeping matters — it makes the undertaking a safer place to work in.

Good housekeeping is a vital factor in preventing accidents. The great majority of all work accidents are caused during the handling of goods or materials, and by people falling, being hit

Page 19 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

by falling objects, or striking against objects in the workplace. All these causes can be reduced by good housekeeping practices—in fact, good housekeeping is the only cure for hundreds of accidents that occur.

Here are some kinds of accidents commonly caused by *bad* housekeeping:

- Tripping over loose objects on floors, stairs and platforms
- Articles dropping from above
- Slipping on greasy, wet or dirty surfaces
- Striking against projecting, poorly stacked, or misplaced material
- Tearing the hands or other parts of the body on projecting nails, wire, steel strapping on bales or crates, etc.

Where housekeeping is bad, fire is a constant hazard. It can be caused by many housekeeping problems—such as oil-soaked rags and clothing igniting from spontaneous combustion; dust collectors not being properly or frequently cleaned; or piles of paper and other packing materials being allowed to accumulate.

Typical examples of poor housekeeping that lead to these accidents are:

- Excessive material, waste or chips in the working area
- Congested aisles
- Tools left on machines
- Waste containers overflowing
- Lockers and workrooms in disorder
- Acids in open containers
- Broken glass
- Electric leads or air lines across aisles

- Dirty light fittings, windows and skylights

Poor housekeeping can also lead to infestation by pests such as rodents and cockroaches and create serious health risks.

Elements of a Good Housekeeping

The following are the basic elements of a good housekeeping:

Aisles - Wide enough for traffic movements, marked off by floor lines from work positions and storage areas.

Space - insuring sufficient room for the individual to work.

Storage - Adequate and convenient space for materials and tools.

Materials Handling - Layout planned for materials flow, with efficient methods and equipment.

Ventilation - Good general ventilation plus local exhaust ventilation to remove air contaminants at the source.

Floors and Walls - of construction and materials that are easy to keep clean and in good repair.

Lighting - Well-distributed artificial light and effective use of available daylight.

Amenities - Clean, up-to-date washrooms and lockers for clothing, and clean and inviting lunch room for employees to eat their meals.

Waste Removal - Adequate facilities to prevent congestion and disorder. Let us look at some of these elements in detail.

2.4.2. Check cleaning according to the requirement

Cleaning requirement can be checked by the following methods

- Observation of work performance
- Written tasks
- Interviewing and questioning

Page 21 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

- Formal appraisal systems
- Staff/client feedback
- Portfolio/CV
- Supporting statement of supervisor(s)
- Authenticated evidence of relevant work experience and/or formal/informal learning
- Case studies and scenarios as a basis for discussion

Self-Check 2.2	Written Test
-----------------------	---------------------

Directions: Answer all the questions listed below

Part I. Chose the correct answer for the following questions

1----- Is examples of poor housekeeping that lead to these accidents

- A. cleaning B. material handling C. Congested aisles D. all

2-----Is a vital factor in preventing accidents?

- A. Observation of work performance B. Written tasks C. Broken glass D. good housekeeping

3----- Methods used to check cleaning requirement

- A. Portfolio/CV B. Ventilation C. Mopping D. Vacuum

4----- Which one of the following is cleaning material?

- A. scrub brush B. housekeeping C. squeegee D. A &C

Part II. Fill the blank space

Fill the blank space for the following question

1----- Layout planned for materials flow, with efficient methods and equipment.

2-----used to remove air contaminants at the source.

Part III. Give short answer

Answer all the questions listed below.

1. List at least 7(seven)Elements of a Good Housekeeping?
2. What are the tasks included in the cleaning operation?
3. List at least 6(six) examples of cleaning equipment?

Page 23 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

Operation Sheet-2.2

OPERATION TITLE: - Prepare and use cleaning equipment for specific task

PURPOSE: To train our trainees about preparing and use of cleaning equipment for specific task by studying all steps and procedures.

CONDITIONS OR SITUATIONS FOR THE OPERATIONS:

The operation process can be performed by following the procedure and steps for preparing and using of cleaning equipment for specific task.

EQUIPMENT TOOLS AND MATERIALS :- cleaning equipment, chemicals and detergents, use of hand tools, pallet truck, hand trolleys, weighing equipment

PROCEDURE:

- Read the information sheet well
- prepare the required materials and equipments
- put each materials separately based on standard
- Perform general cleaning like: - Sweeping, Dusting, Scrubbing, Spotting, Polishing and buffing, Vacuuming, Mopping and other.
- Clean and store the cleaning equipment properly.

PRECAUTIONS: The operation can be performed by applying standard occupational health and safety rule.

QUALITY CRITERIA:

The final appearance of the Prepare and use cleaning equipment for specific task can be checked its quality by the trainers and trainees .If there is a quality problem checking again and if they completed the unit for the prepare and use cleaning equipment for special task pass to next unit.

Page 24 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

LAP Test 2.2	Practical Demonstration
--------------	-------------------------

Instructions: Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task 1. Perform general cleaning duties

Task 2. Clarify cleaning duties and equipment for establishing requirements

Task 3. Determine, prepare and use cleaning equipment for specific task

Task 4 check cleaning according to the requirement

Unit three: Operate specialized machine

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Specialized machines are identified.
- Specialized machine is operated.
- OHS practices are followed.
- Work is assessed for compliance with quality standards and production specifications.
- Specialized machine is checked during production and adjusted to ensure optimum performance.

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Identifying and operating specialized machines
- OHS practices
- Assessing for compliance with quality standards and production specifications
- Checking and adjusting specialized machine during production

3.1. Identifying and operating specialized machines

3.1.1 Definition and functions of spinning and ginning

Spinning is process that used to convert the roving into very fine yarn and then wind it onto bobbins for storage. Ginning is a process used to separate the fiber from seed.

Function of spinning machine

- Drafting: draft the roving for required fineness.
- Twisting: for required count and strength, twist the drafted strand to form yarn.
- Winding: wind the twisted to bobbin.
- Spin: spinning yarn

3.1.2 Operating fly, dust and roller lap picker

Industrial dust and fly collectors are designed to clean up air from industrial machinery and outdoor equipment. They remove the harmful particles from factory workers' breathing areas, which protects their health and safety, improves efficiency, and reduces costs for companies.

Standard operating procedure manual for Dust and fly Collector

Operating Procedure

1. Open the air supply of dry air to the filter/regulator on the pulse cleaning system. Set pressure @ 95 psi.
2. Turn breaker on the control box to the “ON” position (should have a green POWER ON indicator light illuminated).
3. Check the fan damper setting, with new filters it should be approximately 40% open.
4. Close the dust discharge slide gate.
5. Insure that the filter access door in closed and latched.
6. Push the start button to start the fan.

Page 27 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

7. Listen to insure that the filter pulse cleaning system is pulsing properly. There should be an air pulse every 10 to 20 seconds.
8. Check and record the reading of the magnehelic gauge on a Daily Log Sheet. This should be checked on a regular basis (every couple of hours).
If it starts climbing rapidly the system should be shut down and the cause determined.
9. The filters (PN 1000 0300) in this equipment are MERV 12 rated. Refer to the attached Filter Performance Specifications for more information.
10. The normal operating range of this equipment is between .05” to 10” of differential pressure as indicated on the magnehelic gauge. If the reading is above or below this range the equipment should be shut down and the cause for the high or low reading determined.
11. Shut the system down every 2 hours of operation and dump the dust from the hopper. This time frame can be adjusted to more often or less often depending on the dust amount being collected. Do not use the dust hopper as a collection device. This will cause the dust collected inside the hopper to be re-entrained back onto the filters, thus shorting the life of the filters.
12. Do not open the dust discharge slide gate while the fan is running. This will re-entrain the dust that has been collected in the hopper back onto the filters.

Drain the moisture from the air filter/regulator and the air manifold daily or as needed to insure that the filters are not being pulse with wet or damp air.

3.1.3 Operating vacuum cleaner machine

The vacuum cleaner is a dedicated three phase machine to clean textile industry. this special vacuum cleaner enables to suck up light and long and thin materials like textile pieces, yarn and twine, paper strips, nylon films, etc. this model has been designed in order to direct extraction of scraps from the production lines and machineries.

Page 28 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

Standard operating procedure manual for vacuum cleaner

Operating procedure

1. Ensure all other personnel or bystanders are clear of the immediate work area.
2. Ensure the equipment is used in accordance with the manufacturer's instructions.
Exercise caution in relation to the electrical lead and extension cord (if applicable). Ensure a tagged RCD is fitted to the power source outlet.
3. To reduce bending to pick up objects on the floor (paper or chewing gum etc.) before vacuuming, use long-handled litter collectors, or brooms and pans.
4. Use vacuum heads that are appropriate for the floor surface and appropriate vacuum attachments for the surface, for example, upholstery attachments for furniture.
5. To reduce pushing and pulling, provide use a mechanized floor vacuum.
6. Operate during times of low pedestrian traffic.
7. Do not walk on, wheel objects over, or drop objects on electrical cords.
8. Adjust the length of the wand to enable the shoulder and elbow to be in a natural position close to the body to minimize body movement.
9. Stand upright ensuring all operations with this equipment are undertaken with the intention of maintaining the back's natural curves.
10. Alternate use of right arm and left arm to avoid fatigue of dominant arm.
11. Do not twist your torso or excessively reach when cleaning.
12. Move with the vacuum.
13. Move furniture / rugs and then vacuum.
14. Do not do both at the same time.
15. Do not attempt to suck up water and avoid working in wet areas.
16. Never attempt to pick up flammable materials or combustible liquids.
17. Switch off the appliance, switch off at the power point and disconnect lead from power source when moving from one area to another.



Fig 3.1 Vacuum cleaner machine

3.2. OHS practices

OHS practice is a practice that used to prevent the worker (employee) from injuries and illnesses arising from the workplace. There is lots of OHS practice these are listed below

- Manual handling techniques
- Standard operating procedures
- Personal protective equipment
- Safe materials handling
- Taking of rest breaks
- Ergonomic arrangement of workplaces
- Following marked walkways
- Safe storage of equipment
- Housekeeping
- Reporting accidents and incidents
- Environmental practices

Page 30 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

3.3. Assessing for compliance with quality standards and production specifications

Quality standards are designed to ensure companies meet the minimum requirements to become an integral part of almost every industry from food to automotive to healthcare. It's clear that those standards are here indefinitely.

Some organizations struggle with the concepts of quality standards or they view it as a complex system. But with a little bit of information, help and a clear understanding of why quality standards can benefit them, organizations can learn to embrace quality standards rather than buck against them.

Dimensions of quality in production

- Performance
- Reliability
- Durability
- Serviceability
- Aesthetics
- Perceived quality
- Conformance to standards

Production task specifications tell the program how to process documents for a particular solution. Production tasks can contain one or more activities that perform only a part of the total process, or they can contain all of the activities needed to perform the entire process.

How you set up production tasks depends on your requirements and workflow. Production tasks can be performed automatically, manually, or both. The collective result of all production tasks determines the flow of documents through the system.

Page 31 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

3.4. Checking and adjusting specialized machine during production

Checking and adjusting machine in the industry is the first and the basic step to start production.

Benefits of checking and adjusting the machine during production

- Reduce risks machine damage
- Reduce risks of operator injury
- Improve production efficiency
- Increase machine life time
- Avoid unwanted sound etc.

3.4.1. Adjustment (setting up) of vacuum cleaner machine

1. Always begin by setting-up your work area safely to avoid the following:
 - Trip hazard, uncomfortable working conditions, electrical hazards, crowded work spaces (other students) and other dangerous situations
2. Identify the correct machine:
 - Wet/Dry for damp or moist debris typically found in the metal Shop. This machine has a course filter and is not suitable for fine dusts that would combine with moisture to clog this filter.
 - Dry (only) for dusts with no moisture. This machine has a fine filter and/or bag filter for fine particulate (not HEPA) that is easily emptied by replacing the bag. Using this machine on moist debris immediately clogs the fine filter and ruins the bag, crippling its effectiveness.
3. Do not use on long stringy debris. Identify suitable debris for correct machine use. For dusts and particles only. Not suitable for long stringy debris such as that often produced by drilling or lathe operations.
4. If machine feel heavy, it may be time to empty or replace filter and canister. See Technical Staff for instruction or look in cabinets in CMLP 63 for replacements
5. Identify ON/OFF switch

Page 32 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

6. Inspect electrical cord

3.4.2. Adjustment procedures of dust and fly picker (collector)

1. Ask the driver for the Packing Slip from the shipper.
Keep this paperwork with the equipment.
2. Unload the equipment with the properly sized forklift or crane.
3. Locate the equipment on a level surface where it is to be operated.
4. Do not locate the equipment in a building or structure with LOW overhead clearance. The discharge from the fan can be very powerful and it may damage items above it.
5. Pull the leg pin from each leg and raise the equipment up to its operating height with a forklift or crane and re-install the pins.
6. Have a licensed electrician connect the proper power source to the equipment.
7. Remove the inlet cover from one (or more) of the duct inlets.
8. Have the electrician start and stop the fan to check the fan rotation. If the rotation is incorrect, have it corrected. (Warning: Do not change the power cord connections inside the control box, this may cause damage to the circuit breaker).
9. If filters were not installed by SAFE Systems, Inc., install them now. Do not operate the dust collector without proper filters installed.
10. Connect the ducting to the unit using the duct adapter(s) provided. Install the duct covers on any duct inlet that does not have a duct connected to it.
11. Connect a ¾" air line to the air regulator/filter for the pulse air cleaning system and set the line pressure @ 95 PSI.
12. Position a 55-gallon drum or other collection device (provided by the customer) under the slide gate of the duct collector's hopper. Put the drum cover on the drum and connect the hose from the drum cover to the slide gate. Close the slide gate.
13. Make sure to position the duct inside the containment area where it is not too close the working personnel or to the dust generating operation.

Page 33 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

(Warning: Recovering abrasive media from the containment area through the ventilation ducting can damage the filters).

14. Do not allow rope, rags or other debris to get sucked up into the ducting and dust collector. This debris can clog the ducting, inlet screens inside the collector or the dust discharge at the bottom of the dust hopper. This type of blockage may cause the equipment to shut down and it may cause damage to the filters or the unit itself.
15. The fan is equipped with a “Damper” to adjust the air flow through the system. The damper adjustment handle is located on the inlet side of the fan. The recommended damper setting for new filters is 40% open.

Self-Check 3.1	Written Test
-----------------------	---------------------

Directions: Answer all the questions listed below.

Part I true false

Say true or false for the following

1. Spinning is a process of changing the carding sliver in roving?
2. Production task specifications tell the program how to process documents for a particular solution.
3. Industrial dust and fly collectors are designed to clean up air from industrial machinery and outdoor equipment.

Part II choice

Choose the correct answer for the following question

1. Which of the following an example of OHS practices?
A. use PPE B. winding C. reliability D. B&C
2. Which one of the following Dimensions of quality in production
A. safe material handling B. housekeeping C. performance D. A&B

Part III short answer

Give short answer for the following question

1. What are the Benefits of checking and adjusting the machine during production?
2. List at least 6 examples of OHS practices?
3. Write the steps for vacuum cleaners?

Operation Sheet-3.1

OPERATION TITLE: - Operate specialized machine

PURPOSE: To train our trainees about operating specialized machine for production.

CONDITIONS OR SITUATIONS FOR THE OPERATIONS:

The operation process can be performed by following the procedure and steps operating specialized machine

EQUIPMENT TOOLS AND MATERIALS: -cleaning equipment, chemicals and detergents, use of hand tools, pallet truck, hand trolleys and weighing equipment.

PROCEDURE:

- Read the information sheet well
- prepare the required materials and equipment
- put each materials separately based on standard
- Perform operating specialized machine.

PRECAUTIONS:

The operation can be performed by applying standard occupational health and safety rule.

QUALITY CRITERIA:

The final appearance of operating specialized machine for production task can be checked its quality by the trainers and trainees .If there is a quality problem checking again and if they completed the unitfor the operate specialized machine pass to next learning unit.

LAP Test 3.1

Practical Demonstration

Instruction I: Given necessary templates, tools and materials you are required to perform the following tasks within 10 hours.

Task 1: identify specialized machines

Task 2: perform operating specialized machine

Task 3: checking and adjusting specialized machines

Unit Four: Assist in transfer or removal of materials or products where required

This unit to provide you the necessary information regarding the following content coverage and topics:

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Receiving, organizing, confirming and recording requests according to specified procedures
- Assistance required in transfer or removal of materials or products
- Using appropriate methods and manual handling techniques

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Requests are received and, where relevant, tasks are organized, confirmed and recorded according to specified procedures.
- Assistance is provided in transfer or removal of materials or products as required.
- Appropriate methods and manual handling techniques are used

4.1 Receiving, organizing, confirming and recording requests according to specified procedures

4.1.1. Request and communicate relevant information according to specified procedures

Methods for collecting information may include:

- Observation and listening

Page 38 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

- File records
- Individual research
- Statistics and reports from other organizations
- Producing reports from data collected in the business
- Translating data from diaries and note-books
- Professional data collection agency
- Interviews with colleagues/customers
- Questioning (in person or indirect) via questionnaires or face to face interview
- Recruitment applications and other forms

Seven golden rules for information sharing

1. Remember that the Data Protection Act is not a barrier to sharing information but provides a framework to ensure that personal information about living persons is shared appropriately.
2. be open and honest with the person (and/or their family where appropriate) from the outset about why, what, how and with whom information will, or could be shared, and seek their agreement, unless it is unsafe or inappropriate to do so.
3. Seek advice if you are in any doubt, without disclosing the identity of the person where possible.
4. Share with consent where appropriate and, where possible, respect the wishes of those who do not consent to share confidential information. You may still share information without consent if, in your judgment, that lack of consent can be overridden in the public interest. You will need to base your judgment on the facts of the case.
5. Consider safety and well-being: Base your information sharing decisions on considerations of the safety and well-being of the person and others who may be affected by their actions.
6. Necessary, proportionate, relevant, accurate, timely and secure: Ensure that the information you share is necessary for the purpose for which you are sharing it, is shared only with those people who need to have it, is accurate and up-to-date, is shared in a timely fashion, and is shared securely.

Page 39 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

7. Keep a record of your decision and the reasons for it – whether it is to share information or not. If you decide to share, then record what you have shared, with whom and for what purpose.

4.2. Assistance required in transfer or removal of materials or products

4.2.1. Transfer or removal of materials

Requests are received and, where relevant, tasks are organized, confirmed and recorded according to specified procedures. Assistance is provided in transfer or removal of materials or products as required. Appropriate methods of removal and transfer and manual handling techniques are used.

4.3. Using appropriate methods and manual handling techniques

4.3.1 Manual handling techniques

Manual Handling Operations Regulations 1992 (as amended) (**MHOR**) The Regulations define manual handling as: "...any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force". The load can be an object, person or animal.

LIFTING AND HANDLING

Guidance and Procedures: Historically, over 30% of injury accidents at work can be attributed to poor manual handling procedures and techniques.

Common Injuries

The physical risks from lifting and handling incorrectly include:

Lifting.

- Back injuries
- Slipped discs
- Sprains and strains
- Torn ligaments and tendons

Page 40 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

- Hernias etc.

Handling.

- Cuts and abrasions
- Crush injuries
- Penetration of sharp objects.

A back injury, once sustained, frequently causes permanent weakness. The Manual Handling Operations Regulations 1992 impose a duty on employers to manage the risks associated with manual handling activities.

They also establish a clear hierarchy of measures:

- Avoid hazardous manual handling operations so far as is reasonably practicable
- Assess any hazardous manual handling operations that cannot be avoided, and
- Reduce the risk of injury so far as is reasonably practicable.

Self-Check 4.1	Written Test
-----------------------	---------------------

Directions: Answer all the questions listed below.

1. Part I. Matching

Direction: match column “A” with descriptions in column “B” write the correct answer on the provided space

A	B
-----1. Sprains and strains	a. risks by incorrect lifting
-----2. Methods of collecting information	b. individual research
-----3. Cuts and abrasions	c. risks by incorrect handling

Part II short answer

Give short answer for the following question

1. How we can collect relevant information according to specified procedures?
2. What are the methods of transfer or removal of materials?
3. Write about manual handling techniques?
4. How we can plan and maintain work place by using quality standard?

Operation sheet4.1

OPERATION TITLE: Removal of materials or products where required

PURPOSE:

To train our trainees about Assist in transfer or removal of materials or products where required by studying all steps and procedures.

CONDITIONS OR SITUATIONS FOR THE OPERATIONS:

The operation process can be performed by following the procedure and steps.

EQUIPMENT TOOLS AND MATERIALS: cleaning equipment, chemicals and detergents, use of hand tools, pallet truck, hand trolleys and weighing equipment.

PROCEDURE:

- Read the information sheet well
- prepare the required materials and equipments
- put each materials separately based on standard
- Remove or transfer materials using proper material handling method and equipments.
- Clean the work area.

PRECAUTIONS:

The operation can be performed by applying standard occupational health and safety rule.

QUALITY CRITERIA:

The final appearance of removal of materials or products where required can be checked its

Page 43 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

quality by the trainers and trainees. If there is a quality problem checking again and if they completed the unit appearance of removal of materials or products where required pass to next unit.

LAP Test 4.1	Practical Demonstration
---------------------	--------------------------------

Instructions: Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task1. Request and communicate relevant information according to specified procedures.

Task 2. Transfer or remove materials according to the procedure.

Task3. Handle materials and products by using proper way.

Task.4 Plan and maintain work place by using quality standard

Unit Five: Complete documentation

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Documentation associated with tasks, where relevant, is accurately completed.
- Documents must be compiled

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Completing documentation associated with tasks
- Compiling documents

Introduction

Record-keeping is an integral part of general production- related duties and tasks. Records include anything that makes reference to the work. The approach to record keeping that courts of law adopt tends to be that ‘if it is not recorded, it has not been done’. Good record keeping helps to improve accountability and shows how decisions related to work were made.

Page 45 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	---	----------------------------

Follow these three general principles to develop records and documents:

1. Keep it short and simple. Use bullet points and flow diagrams instead of long sentences and lengthy paragraphs.
2. Clarity is important. Step-by-step instructions are easily understood.
3. Use a standardized, consistent format. Although different programs may need different documents and records, using a similar approach will help staff learn quickly.

A controlled document or record must contain the following:

- Title
- Creation/revision date
- Page number
- Prepared by/issued by
- Approved date
- Approval signature

By including this information on each page a facility will be able to maintain control of the document or record. Include this information either in the header (top of the page), footer (bottom of the page) or in a combination of the two.

Controlled documentation also ensures that when the system is revised or updated, processors will use only the most up-to-date documents or records. This also helps processors make sure that changes are not made to the system without proper knowledge and approval.

A number of common problems with record-keeping have been identified. These are:

- Absence of clarity e.g. the meaning of 'Had a good day' and 'slept well' is not clear
- Failure to record action taken when a problem is identified, e.g. 'is suffering increasing pain' then no record of action taken
- Missing information, e.g. administration of a drug not documented
- Spelling mistakes, e.g. error in name resulting in wrong diagnosis

Page 46 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

- Inaccurate records, e.g. changing a dressing or giving medication, when in fact the patient had not received the recorded treatment (leading to a nurse being removed from the Register)
- Failure to document conversations
- Failure to document care given
- Failure to document special needs
- Failure to record telephone calls, e.g. on risk of suicide
- Failures in communication between healthcare professionals
- Too much jargon
- Patient identification, e.g. entry of information on an identity band, clinical documentation and failure to transfer patient details on continuation sheets

Documentation and Record Keeping

The good record keeping as an integral and essential to the provision of safe and effective care.

They acknowledge that good record keeping has a range of important functions including:

- improving communication between healthcare professionals
- supporting delivery and continuity of patient care
- demonstrating clinical judgments and decision making
- identifying risk for patients

Records: - Provide evidence of various actions taken to demonstrate compliance with instructions, e.g. activities, events, investigations, and in the case of manufactured batches a history of each batch of product, including its distribution. Records include the raw data which is used to generate other records. For electronic records regulated users should define which data are to be used as raw data.

At least, all data on which quality decisions are based should be defined as raw data. Good documentation constitutes an essential part of the quality assurance system and is key to

Page 47 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1 August, 2022
---------------	--	--	----------------------------

operating in compliance with GMP requirements. The various types of documents and media used should be fully defined in the manufacturer's Quality Management System.

Documentation may exist in a variety of **forms**, including paper-based, electronic or photographic media. The main objective of the system of documentation utilized must be to establish, control, monitor and record all activities which directly or indirectly impact on all aspects of the quality of medicinal products. The Quality Management System should include sufficient instructional detail to facilitate a common understanding of the requirements, in addition to providing for sufficient recording of the various processes and evaluation of any observations, so that ongoing application of the requirements may be demonstrated.

There are two primary types of documentation used to manage and record GMP compliance: instructions (directions, requirements) and records/reports. Appropriate good documentation practice should be applied with respect to the type of document.

Suitable controls should be implemented to ensure the accuracy, integrity, availability and legibility of documents. Instruction documents should be free from errors and available in writing. The term 'written' means recorded, or documented on media from which data may be rendered in a human readable form. Finally the documented records reported to the concerned body or keep in a safe place for reference.

Page 48 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1
			August, 2022

Self-Check 5.1

Written Test

Directions: Answer all the questions listed below.

Part I short answer

Give short answer for the following question

1. What are the general principles to develop report and documentation?
2. What are the common problems related with report keeping?
3. Why we keep production related records?

Reference

- www.cleanteek.com
- Technical textile book
- Hand book of Sop manual
- Safety Manual and Guide
- www.wynnslocksmiths.com.au

Page 50 of 53	Ministry of Labor and Skills Author/Copyright	Performing Tasks to Support Production	Version -1
			August, 2022

Participants of this Module (training material) preparation

No	Name	Qualification (Level)	Field of Study	Organization/ Institution	Mobile number	E-mail
1	Abdrehman Hassen	B	Garment Enginring	WPTC	0910673126	Abdrehmanhassen39@gmail.com
2	Dawit Gebre	B	Textile Engineering	BuPTC	0920292380	dtexciv@ gmail .com
3	Wubishet Tegegne	B	Textile Engineering	BaPTC	0918143343	wubu79@yahoo.com
4	Zemen Amha	B	Textile Engineering	GPTC	0918620373	Zemenamha123@gmail.com

