



Embroidery Machine Operator (Zigzag Machine)

QP Code: AMH/Q0801

Version: 2.0

NSQF Level: 3

Apparel, Madeups & Home Furnishing Sector Skill Council || Flat No. A-312 to A-323, 3rd Floor,
Sondatt Chamber-1, Bhikaji Cama Place, Africa Avenue
New Delhi-110066

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AMH/Q0801: Embroidery Machine Operator (Zigzag Machine)

Brief Job Description

An Embroidery Machine Operator is responsible for operating the embroidery machine to embroider decorative designs on fabric/garments in the apparel industry. The embroidery machine operator must be able to perform different kinds of stitches and decorative work such as running shade work, cording & satin stitch, eyelet work, applique work, shade work and round, cut work and open work, pin stitch & pitch stitch, chain embroidery & fancy embroidery.

Personal Attributes

An embroidery machine operator should have good eyesight, eye-hand-leg coordination, motor skills, attention to detail and vision (including near vision, distance vision, colour vision, peripheral vision, depth perception and ability to change focus).

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [AMH/N0102: Maintain workarea, tools and machines and Greening of Job Roles](#)
2. [AMH/N0103: Maintain health, safety and secure work place with Gender and PwD Sensitization](#)
3. [AMH/N0801: Carry out different types of embroidery stitches using an embroidery machine](#)
4. [AMH/N0802: Embroider decorative designs using embroidery machine](#)
5. [AMH/N1003: Contribute to achieve quality in embroidery work](#)

Qualification Pack (QP) Parameters

Sector	Apparel
Sub-Sector	Apparel
Occupation	Machine Embroidery Operation
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8153.0601

Minimum Educational Qualification & Experience	5th Class with 4 Years of experience in relevant field OR 8th Class with 2 Years of experience in relevant field OR 10th Class with 1 Year of experience OR Certificate-NSQF (level 3, as framer) with 1 Year of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	Training in Sewing operations
Minimum Job Entry Age	18 Years
Last Reviewed On	30/12/2021
Next Review Date	30/12/2024
NSQC Approval Date	30/12/2021
Version	2.0
Reference code on NQR	2021/APR/AMHSSC/04761
NQR Version	1.0

AMH/N0102: .Maintain workarea, tools and machines and Greening of Job Roles

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to organize/ maintain work areas and activities to ensure tools and machines are maintained as per norms

Scope

The scope covers the following :

- Maintenance of the work area, tools and machines and observe green processes in job roles

Elements and Performance Criteria

Maintain the workarea, tools and machines and Greening of Job Roles

To be competent, the user/individual on the job must be able to:

- PC1.** Handle materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard free working area and support adaptation to more environmentally friendly processes
- PC2.** Use correct lifting and handling procedures; and inculcate sustainable consumption practices and offer relevant greening solutions
- PC3.** Use materials efficiently to minimize wastage and dispose off waste safely at the designated location.
- PC4.** Carryout running maintenance and/or cleaning within one's responsibility and agreed schedules
- PC5.** Report any unsafe or damaged equipment and other dangerous occurrences to the authorized personnel
- PC6.** Ensure that the correct machine guards are in place
- PC7.** Work in a comfortable position and maintain correct posture
- PC8.** Use cleaning equipment and methods appropriate for the work to be carried out

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Importance of good health, personal hygiene and duty of care
- KU2.** Importance of safe working practices and code of conduct (COC) and Social Accountability standards followed by the organization/ industry
- KU3.** Limits of your own responsibility
- KU4.** The production process and the specific work activities that relate to the whole process
- KU5.** The line and importance of effective communication with superiors and colleagues
- KU6.** Knowledge about the organization's rules, codes, quality standards, reporting procedures and guidelines (including timekeeping)
- KU7.** The importance of complying with written instructions

- KU8.** Knowledge about equipment operating procedures / manufacturer's instructions
- KU9.** Work instructions and specifications and interpret them accurately
- KU10.** Method to make use of the information detailed in specifications and instructions
- KU11.** Relation between work role and the overall manufacturing process
- KU12.** The importance of taking action when problems are identified
- KU13.** Different ways of minimizing waste
- KU14.** The importance of running maintenance and regular cleaning
- KU15.** Effects of contamination on products i.e., machine oil, dirt
- KU16.** Common faults with equipment and the method to rectify
- KU17.** Maintenance procedures
- KU18.** Hazards likely to be encountered when conducting routine maintenance
- KU19.** Types of cleaning equipment and substances and their use
- KU20.** Safe working practices for cleaning and the method of carrying them out
- KU21.** Making conscious and sustainable decisions for achieving effective and green workplace.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Write and document appropriate technical forms, job cards, inspection sheets as per the required format of the company
- GS2.** Read and comprehend basic English to interpret indicators in the operating manuals, job cards, visual cards
- GS3.** Read and understand manuals, health and safety instructions, memos, reports, job cards etc.
- GS4.** Speak and communicate effectively with peers and supervisors
- GS5.** Give clear detailed instructions to co-workers, subordinates and others
- GS6.** Use correct technical terms while interacting with supervisor
- GS7.** Take appropriate decisions regarding your responsibilities
- GS8.** Assess for any damaged /faulty component in the concerned machinery and take action accordingly
- GS9.** Evaluate the decision and conduct basic trouble shooting
- GS10.** Plan and manage work routine based on company procedure
- GS11.** Work with supervisors/ team mates to carry out work related tasks
- GS12.** Plan for cleaning and lubricating the concerned machinery, tools, and workplace daily before and after operations
- GS13.** Ensure and follow organizational procedures pertaining to health and safety are followed
- GS14.** Solve operational role related issues
- GS15.** Diagnose common problems in the machine based on visual inspection, sound, temperature etc.
- GS16.** Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently
- GS17.** Make conscious and sustainable decisions that help reduce, rescue, and recycle the company resources

GS18. Identify and replace processes that create unnecessary waste

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain the workarea, tools and machines and Greening of Job Roles</i>	14	49	-	7
PC1. Handle materials, machinery, equipment and tools safely and correctly to maintain a clean and hazard free working area and support adaptation to more environmentally friendly processes	2	5	-	1
PC2. Use correct lifting and handling procedures; and inculcate sustainable consumption practices and offer relevant greening solutions	2	5	-	1
PC3. Use materials efficiently to minimize wastage and dispose off waste safely at the designated location.	2	3	-	1
PC4. Carryout running maintenance and/or cleaning within one's responsibility and agreed schedules	2	10	-	1
PC5. Report any unsafe or damaged equipment and other dangerous occurrences to the authorized personnel	2	3	-	0.5
PC6. Ensure that the correct machine guards are in place	2	3	-	1
PC7. Work in a comfortable position and maintain correct posture	1	10	-	0.5
PC8. Use cleaning equipment and methods appropriate for the work to be carried out	1	10	-	1
NOS Total	14	49	-	7

National Occupational Standards (NOS) Parameters

NOS Code	AMH/N0102
NOS Name	.Maintain workarea, tools and machines and Greening of Job Roles
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Sewing
NSQF Level	4
Credits	TBD
Version	11.0
Last Reviewed Date	30/12/2021
Next Review Date	30/12/2024
NSQC Clearance Date	30/12/2021

AMH/N0103: Maintain health, safety and secure work place with Gender and PwD Sensitization

Description

This unit provides performance criteria, knowledge & understanding, and skills & abilities required to comply with health, safety, and security requirements at the workplace and covers procedures to prevent, control and minimize risk to self and others

Scope

The scope covers the following :

- Potential risks associated with hazardous processes and guidelines for medical emergencies.

Elements and Performance Criteria

Hazards and potential risks associated with the process, guidelines for medical emergencies and evacuation process; gender & PwD sensitization

To be competent, the user/individual on the job must be able to:

- PC1.** Comply with health, safety gender and PwD (People with disability) related instructions applicable to the workplace.
- PC2.** Actively participate in mock drills/evacuation procedures and group discussions related to a safe and secure work place.
- PC3.** Training sensitization programs for gender and PwD awareness organized at the workplace.
- PC4.** Use and maintain materials and equipment as per protocol.
- PC5.** Capable to perform first-aid, firefighting or any other emergency response procedures and follow organization procedures for shutdown and evacuation when required
- PC6.** Monitor the work place and processes for potential risks/ threats to supervisors or other authorized personnel and ensure gender equality and PwD (People with disability) security.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** The importance of gender equality being followed in the organization and policies for reporting any harassment or inappropriate behavior
- KU2.** How to accommodate employees with disabilities; etiquette to adhere to and proper language and terminology
- KU3.** How to communicate, offer help, respecting space, parking etc. for people with disabilities or special needs.
- KU4.** Promote a safe, accessible and healthy workplace for disabled employees.
- KU5.** Health and safety related practices applicable at the workplace.
- KU6.** Potential hazards, risks and threats based on nature of operations; the ways to minimize these and response to these scenarios.

- KU7.** The code of conduct (COC) and Social Accountability standards followed by the organization/ industry
- KU8.** Layout of the plant and details of emergency exits, escape routes, emergency equipment and assembly points.
- KU9.** Reporting protocol and documentation required.
- KU10.** The occupational health and safety risks and methods; importance of personal protective equipment and method of use.
- KU11.** Identification, handling and storage of hazardous substances.
- KU12.** Proper disposal system for waste and by-products.
- KU13.** Signage related to health and safety and their meaning.
- KU14.** The importance of personal health and hygiene and the ill effects of usage of intoxicants such as alcohol, tobacco and drugs.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Create a positive and inclusive workplace atmosphere without any kind of bias/discrimination towards any employee.
- GS2.** Actively take part in any discussion/workshop organized for gender sensitization training
- GS3.** Read and comprehend written instructions related to gender equality and Pwd awareness/issues in the organization
- GS4.** Identify and report any harassment or inappropriate behavior towards any employee
- GS5.** Identify and report any distinction, exclusion, harassment or inappropriate behavior towards any employee
- GS6.** Document and report any health and safety related incidents/ accidents to the authorized personnel.
- GS7.** Read all organizational and equipment related health and safety manuals and documents
- GS8.** Read instructions, guidelines/procedures/rules related to the worksite and machine operations
- GS9.** Keep abreast with the latest developments for innovative safety services and tools by reading brochures, pamphlets, magazines etc
- GS10.** Discuss the latest approach for safety and security with the team
- GS11.** Evaluate and use correct PPE kit and other safety gear while at the workplace
- GS12.** Work with supervisors/ team mates to carry out work related tasks as per schedule
- GS13.** Keep work area free from potential hazards
- GS14.** Follow organizational procedures pertaining to health and safety.
- GS15.** Take appropriate actions during emergencies, accidents or fire at the workplace
- GS16.** Resolve issues pertaining to malfunctions in machineries and report if required
- GS17.** Identify emergency situations; their cause & effect relationship and suggest probable solutions
- GS18.** Analyze, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently
- GS19.** Create a positive and inclusive workplace atmosphere without any kind of bias/discrimination towards any employee

- GS20.** Actively take part in any discussion/workshop organized for gender sensitization training
- GS21.** Read and comprehend written instructions related to gender equality issues in the organization

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Hazards and potential risks associated with the process, guidelines for medical emergencies and evacuation process; gender & PwD sensitization</i>	22	12	-	6
PC1. Comply with health, safety gender and PwD (People with disability) related instructions applicable to the workplace.	4	2	-	1
PC2. Actively participate in mock drills/evacuation procedures and group discussions related to a safe and secure work place.	4	2	-	1
PC3. Training sensitization programs for gender and PwD awareness organized at the workplace.	4	2	-	1
PC4. Use and maintain materials and equipment as per protocol.	3	2	-	1
PC5. Capable to perform first-aid, firefighting or any other emergency response procedures and follow organization procedures for shutdown and evacuation when required	4	2	-	1
PC6. Monitor the work place and processes for potential risks/ threats to supervisors or other authorized personnel and ensure gender equality and PwD (People with disability) security.	3	2	-	1
NOS Total	22	12	-	6

National Occupational Standards (NOS) Parameters

NOS Code	AMH/N0103
NOS Name	Maintain health, safety and secure work place with Gender and PwD Sensitization
Sector	Apparel
Sub-Sector	Apparel, Made-Ups & Home Furnishing
Occupation	Sewing, Sewing, Specialized Sewing, Sampling, Ironing, Hand Embroidery, Production Supervision, Computerized Embroidery, Laying, Quality Control
NSQF Level	4
Credits	TBD
Version	5.0
Last Reviewed Date	30/12/2021
Next Review Date	30/12/2024
NSQF Clearance Date	30/12/2021

AMH/N0801: Carry out different types of embroidery stitches using an embroidery machine

Description

This unit is about operating the embroidery machine to carry out different types of embroidery stitches on fabric

Scope

The scope covers the following :

- Prepare for zigzag machine embroidery Carryout different types of embroidery stitches & artwork as per specifications

Elements and Performance Criteria

Prepare for Zig Zag Machine Embroidery

To be competent, the user/individual on the job must be able to:

- PC1.** Analyse & interpret the design to be embroidered & the type of embroidery to be done
- PC2.** Check the materials required for embroidery with the given specifications
- PC3.** Setup the embroidery machine as per embroidery to be done

Carry out different Types of Embroidery Stitches & Artwork

To be competent, the user/individual on the job must be able to:

- PC4.** Use the embroidery machine to carry out dotted stitch on given fabric / material
- PC5.** Operate the embroidery machine to embroider different designs as per given pattern/art work
- PC6.** Embroider any given pattern on fabric using the correct thread & materials, using the embroidery machine.
- PC7.** Carry out round stitch, applique, dori, mirror and cut work; and its variation in machine embroidery as per specifications
- PC8.** Conform to company quality standards
- PC9.** Check with in charge /others when unsure of new product details
- PC10.** Minimise and dispose the waste materials in the approved manner
- PC11.** Carryout operations at a rate which maintains workflow
- PC12.** Respond appropriately if the embroidery does not meet product specification & take corrective action

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Organizations policies, procedures, guidelines and standards for quality
- KU2.** Safe working practices and organisational procedures
- KU3.** Quality systems and other processes practiced in the organization

- KU4.** Types of problems with quality and how to report them to appropriate people
- KU5.** The importance of complying with written instructions
- KU6.** Reporting procedure in case of faults
- KU7.** Who to refer problems to when they are outside the limit of your authority
- KU8.** Organizations tools, templates and processes for embroidery related operations in production
- KU9.** Different types of embroidery techniques & associated stitch type
- KU10.**
 - Zig-Zag machine embroidery :-
 - 1. Types of thread used in machine embroidery
 - 2. Machine faults & their remedies
 - 3. Relation between thread, machine needle and cloth
 - 4. Care & maintenance of embroidery machine
 - 5. Quality control
- KU11.** Required machine setting for different types of embroidery
- KU12.** Colour combination/usage of thread as per the given design
- KU13.** Different types of fabrics & other materials and accessories used in embroidery
- KU14.** Technical terms associated with different kinds of embroidery work
- KU15.** The characteristics of the embroidery materials and how they differ
- KU16.** Thread thickness, shade and sizes
- KU17.** Types of needles & their suitability
- KU18.** Types of trims
- KU19.** Tools & material requirements for embroidery as per given specifications
- KU20.**
 - Types of embroidery stitches & artwork :-
 - 1. Round leaves in different design
 - 2. Dotted stitch
 - 3. Pointed leaves in different design
 - 4. Applique work in machine embroidery & its variation
 - 5. Dori work in machine embroidery
 - 6. mirror work through machine embroidery
 - 7. Cut work through machine embroidery
 - 8. Round stitch in machine embroidery

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Communicate in local language (wherever applicable)
- GS2.** Read and interpret a design specification sheet
- GS3.** Read art work details for the type of embroidery
- GS4.** Listen effectively and orally communicate information accurately
- GS5.** Ask for clarification and advice from others
- GS6.** Follow rule-based decision-making processes
- GS7.** Make decisions on a suitable course of action or response
- GS8.** Plan and organize your work to achieve targets and deadlines
- GS9.** Apply problem-solving approaches in different situations

- GS10.** Refer anomalies to the supervisor
- GS11.** Analyse data and activities
- GS12.** Pass on relevant information to others
- GS13.** Provide opinions on work in a detailed and constructive way
- GS14.** Apply balance judgments to different situations

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for Zig Zag Machine Embroidery</i>	6	11	-	3
PC1. Analyse & interpret the design to be embroidered & the type of embroidery to be done	2	2	-	1
PC2. Check the materials required for embroidery with the given specifications	2	4	-	1
PC3. Setup the embroidery machine as per embroidery to be done	2	5	-	1
<i>Carry out different Types of Embroidery Stitches & Artwork</i>	14	59	-	7
PC4. Use the embroidery machine to carry out dotted stitch on given fabric / material	2	6	-	0.5
PC5. Operate the embroidery machine to embroider different designs as per given pattern/art work	1	6	-	0.5
PC6. Embroider any given pattern on fabric using the correct thread & materials, using the embroidery machine.	1	4	-	1
PC7. Carry out round stitch, applique, dori, mirror and cut work; and its variation in machine embroidery as per specifications	5	35	-	3
PC8. Conform to company quality standards	1	1	-	0.5
PC9. Check with in charge /others when unsure of new product details	2	1	-	0.5
PC10. Minimise and dispose the waste materials in the approved manner	1	2	-	0.5
PC11. Carryout operations at a rate which maintains workflow	1	4	-	0.5
PC12. Respond appropriately if the embroidery does not meet product specification & take corrective action	-	-	-	-
NOS Total	20	70	-	10

National Occupational Standards (NOS) Parameters

NOS Code	AMH/N0801
NOS Name	Carry out different types of embroidery stitches using an embroidery machine
Sector	Apparel
Sub-Sector	Apparel
Occupation	Machine Embroidery Operation
NSQF Level	3
Credits	TBD
Version	2.0
Next Review Date	31/03/2025

AMH/N0802: Embroider decorative designs using embroidery machine

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to embroider decorative designs using embroidery machine.

Scope

The scope covers the following :

- Prepare for embroidery related operations.
- Operate the embroidery machine skill fully to achieve the requisite quality of embroidery work

Elements and Performance Criteria

Prepare for embroidery related operations

To be competent, the user/individual on the job must be able to:

- PC1.** Make sure the work area is free from hazards
- PC2.** Follow the instructions & design specifications given for the embroidery to be done
- PC3.** Ask questions to obtain more information on tasks when the instructions you have are unclear
- PC4.** Agree and review your agreed upon work targets with your supervisor and check for special instructions, if any
- PC5.** Use the correct component parts/fabric/material; tools and equipment for embroidery
- PC6.** Check that equipment is safe and set up in readiness for use
- PC7.** Check that the materials to be used are free from faults and meet the specification matching. a. embroidery artwork b. design sample of the embroidered product

Operate the embroidery machine skillfully to achieve the requisite quality of embroidery work

To be competent, the user/individual on the job must be able to:

- PC8.** Carry out test sews
- PC9.** Check needles and threads regularly
- PC10.** Check if fabric /component is correctly marked and pieces cut as required
- PC11.** Report faults in the materials or damaged work to the responsible person
- PC12.** Conform to company quality standards
- PC13.** Follow company reporting procedures about defective tools and machines which affect work and report risks/problems likely to affect services to the relevant person promptly and accurately
- PC14.** Leave work area safe and secure when work is complete
- PC15.** Operate embroidery machines safely; with precision & accuracy and in accordance with guidelines
- PC16.** • Optimize the positioning and layout of materials to ensure a smooth and rapid throughput
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- PC17.** Check the equipment prior to making the stitching, including correct controls, correct attachments, correct needle & thread

PC18. Inspect and ensure all embroidered products conform to its specifications

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** The organisations policies and procedures
- KU2.** Responsibilities under health, safety and environmental legislation
- KU3.** Guidelines for storage and disposal of waste materials
- KU4.** Potential hazards associated with the machines and the safety precautions that must be taken
- KU5.** Protocol to obtain or offer more information on work related tasks
- KU6.** Contact person in case of queries on procedure or products and for resolving issues related to defective machines, tools and/or equipment
- KU7.** Details of the job role and responsibilities
- KU8.** Documentation and reporting formats
- KU9.** Work target and review mechanism with your supervisor
- KU10.** Protocol and format for reporting work related risks/ problems
- KU11.** Method of obtaining/giving feedback related to performance
- KU12.** Importance of team work and harmonious working relationships
- KU13.** Different types of embroidery; combination of various stitches and styles
- KU14.** Use of design specification sheet & understanding the artwork
- KU15.** Range of techniques most suited to the different types of fabrics/materials
- KU16.** Handling & preparation of machine embroidery
- KU17.** Common factors affecting stitching & embroidery
- KU18.** Types of needles
- KU19.** Broken needle procedure
- KU20.** Thread thickness, shade and sizes and parts of needles
- KU21.** Adjusting the top tension
- KU22.** Attachments used on the M/C
- KU23.** Actions to take in the event of a machine ceasing to function correctly
- KU24.** Common hazards in the work area and workplace procedures for dealing with them
- KU25.** The characteristics of the materials to be embroidered and how they differ
- KU26.** The problems encountered when working on different types of materials
- KU27.** Types of defects and their rectification
- KU28.** The embroidery machine parts and its application
- KU29.** Maintenance, adjustment and replacement of worn parts on the machines required for different types of attachment

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Write the required measurements where applicable
- GS2.** Read instructions, guidelines, procedures and rules
- GS3.** Read and understand techpacks, buyer specifications
- GS4.** Ask for clarification and advice from line managers
- GS5.** Communicate orally with colleagues
- GS6.** Refer anomalies to the line manager
- GS7.** Seek clarification on problems from others
- GS8.** Provide relevant information to others
- GS9.** • Analyse needs, requirements and dependencies in order to meet your work requirements
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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for embroidery related operations</i>	7	12	-	4.5
PC1. Make sure the work area is free from hazards	0.5	1	-	0.5
PC2. Follow the instructions & design specifications given for the embroidery to be done	0.5	1	-	0.5
PC3. Ask questions to obtain more information on tasks when the instructions you have are unclear	0.5	-	-	0.5
PC4. Agree and review your agreed upon work targets with your supervisor and check for special instructions, if any	0.5	1	-	0.5
PC5. Use the correct component parts/fabric/material; tools and equipment for embroidery	2	2	-	1
PC6. Check that equipment is safe and set up in readiness for use	1	1	-	0.5
PC7. Check that the materials to be used are free from faults and meet the specification matching. a. embroidery artwork b. design sample of the embroidered product	2	6	-	1
<i>Operate the embroidery machine skillfully to achieve the requisite quality of embroidery work</i>	13	58	-	5.5
PC8. Carry out test sews	-	8	-	-
PC9. Check needles and threads regularly	1	1	-	0.5
PC10. Check if fabric /component is correctly marked and pieces cut as required	1	3	-	0.5
PC11. Report faults in the materials or damaged work to the responsible person	0.5	1	-	1
PC12. Conform to company quality standards	1	4	-	0.5

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. Follow company reporting procedures about defective tools and machines which affect work and report risks/problems likely to affect services to the relevant person promptly and accurately	0.5	1	-	0.5
PC14. Leave work area safe and secure when work is complete	2	1	-	0.5
PC15. Operate embroidery machines safely; with precision & accuracy and in accordance with guidelines	1	20	-	-
PC16. • Optimize the positioning and layout of materials to ensure a smooth and rapid throughput •	1	6	-	0.5
PC17. Check the equipment prior to making the stitching, including correct controls, correct attachments, correct needle & thread	2	3	-	0.5
PC18. Inspect and ensure all embroidered products conform to its specifications	3	10	-	1
NOS Total	20	70	-	10

National Occupational Standards (NOS) Parameters

NOS Code	AMH/N0802
NOS Name	Embroider decorative designs using embroidery machine
Sector	Apparel
Sub-Sector	Apparel
Occupation	Machine Embroidery Operation
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	27/01/2022
Next Review Date	30/12/2024

AMH/N1003: Contribute to achieve quality in embroidery work

Description

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities required to monitor the quality while undertaking embroidery related activities to ensure that the embroidered work meets specifications.

Scope

The scope covers the following :

- Achieving the product quality in embroidery work

Elements and Performance Criteria

Achieving the product quality in embroidery work

To be competent, the user/individual on the job must be able to:

- PC1.** Identify and use materials required based on the specifications
- PC2.** Take the necessary action when materials do not conform to quality standards
- PC3.** Report and replace identified faulty materials and component parts which do not meet specification
- PC4.** Identify modifiable defects and rework on them
- PC5.** Carryout work safely and at a rate which maintains work flow, productivity and quality levels.
- PC6.** Report to the responsible person when the workflow of other production areas disrupts work
- PC7.** Test, sort, track feed and examine work in progress
- PC8.** Carry out quality checks at specified intervals according to instructions
- PC9.** Apply the allowed tolerances
- PC10.** Make adjustments promptly to ensure the embroidery work matches the specification
- PC11.** Identify materials and components for faults ,creased, stained, damage and in- correctly made up components; report these to relevant personnel and take appropriate action for rectification
- PC12.** Complete and maintain documentation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Safe working practices and organizational procedures
- KU2.** The organisation's procedures and guidelines
- KU3.** Quality systems and machine embroidery processes practiced in the organization
- KU4.** Equipment operating procedures/manufacturer's instructions
- KU5.** Types of problems with quality and how to report them to appropriate people
- KU6.** Methods to present any ideas for improvement to line manager
- KU7.** The importance of complying with written instructions

- KU8.** Limits of personal responsibility
- KU9.** Reporting procedure in case of faults
- KU10.** Types of faults likely to occur, their identification and rectification
- KU11.** Techniques and methods used to detect faults
- KU12.** Consequences of incorrect settings in the embroidery machine
- KU13.** Types of decorative stitches, embroidery styles & techniques
- KU14.** Types of defects and their rectification
- KU15.** Importance of keeping stitched/embroidered items away from contamination
- KU16.** The importance of marking and segregating rejects
- KU17.** Inspect embroidered products as per and/or standard inspection methods
- KU18.** Identify, mark and place rejects in the design at the designated locations
- KU19.** Acceptable solutions for particular faults
- KU20.** The consequences of not rectifying problems
- KU21.** Own responsibilities at work during production

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** Write in English/ local language as applicable
- GS2.** Maintain appropriate technical forms, process charts, activity logs in the prescribed format of the company
- GS3.** Read English/ local language as applicable
- GS4.** Read and understand manuals, health and safety instructions, memos, reports, job cards etc.
- GS5.** Listen actively and communicate effectively with supervisors, managers, colleagues etc.
- GS6.** Set up an efficient work place
- GS7.** Use inspection methods appropriate to the work
- GS8.** Identify faults ,the causes and rectification
- GS9.** Apply the allowed tolerances
- GS10.** Differentiate between correctable and non-correctable faults
- GS11.** Identify various hand embroidery tools, their maintenance requirements and procedure
- GS12.** Identify various hand embroidery tools
- GS13.** Handling techniques for different materials

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Achieving the product quality in embroidery work</i>	18	63	-	9
PC1. Identify and use materials required based on the specifications	1	3	-	1
PC2. Take the necessary action when materials do not conform to quality standards	1	4	-	0.5
PC3. Report and replace identified faulty materials and component parts which do not meet specification	2	4	-	0.5
PC4. Identify modifiable defects and rework on them	1	7	-	1
PC5. Carryout work safely and at a rate which maintains work flow, productivity and quality levels.	2	7	-	1
PC6. Report to the responsible person when the workflow of other production areas disrupts work	1	3	-	0.5
PC7. Test, sort, track feed and examine work in progress	1	5	-	1
PC8. Carry out quality checks at specified intervals according to instructions	2	6	-	1
PC9. Apply the allowed tolerances	1	4	-	0.5
PC10. Make adjustments promptly to ensure the embroidery work matches the specification	-	3	-	0.5
PC11. Identify materials and components for faults ,creased, stained, damage and in-correctly made up components; report these to relevant personnel and take appropriate action for rectification	5	12	-	1
PC12. Complete and maintain documentation	1	5	-	0.5
NOS Total	18	63	-	9

National Occupational Standards (NOS) Parameters

NOS Code	AMH/N1003
NOS Name	Contribute to achieve quality in embroidery work
Sector	Apparel
Sub-Sector	Apparel
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	2.0
Next Review Date	31/03/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS. examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each.
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.
6. To pass the Qualification Pack, every trainee should score a minimum of 70% aggregate in QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
AMH/N0102..Maintain workarea, tools and machines and Greening of Job Roles	14	49	-	7	70	17
AMH/N0103.Maintain health, safety and secure work place with Gender and PwD Sensitization	22	12	-	6	40	10
AMH/N0801.Carry out different types of embroidery stitches using an embroidery machine	20	70	-	10	100	25
AMH/N0802.Embroider decorative designs using embroidery machine	20	70	-	10	100	25
AMH/N1003.Contribute to achieve quality in embroidery work	18	63	-	9	90	23
Total	94	264	-	42	400	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.