

PRODUCE KNITTED FABRIC

UNIT CODE: ENG/OS/TEX/CR/04/6/A

Unit description

This unit describes the competencies required by a textile technician to produce knitted fabrics. It involves competencies required to produce warp beam, set up knitting machine, operate knitting machines and control knitting production and quality parameters.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the Range)</i>
1. Produce warp beam	1.1 Safety precautions are observed according to occupational health and safety standards (OSHA) 1.2 Warping pattern is obtained and interpreted according to design specifications. 1.3 Yarn packages are obtained according to design specifications. 1.4 Yarn packages are loaded to creel according to product specifications 1.5 Warping machines are set according to machine specifications 1.6 Suitable beam is loaded on warping machine according to product specifications. 1.7 Yarns are withdrawn from warp creel onto empty beam/warping drum according to product specifications. 1.8 Warping machine is operated according to SOP. 1.9 Production is monitored continuously according to operational instructions 1.10 Warping faults are identified and corrected according to SOP 1.11 Warped beam is doffed off and stored according to operational instructions. 1.12 Warping operations are documented according to organizational procedures. 1.13 Resources requirements are allocated according to work load

<p>2. Set up knitting machine</p>	<p>2.1 Safety precautions are observed according to occupational health and safety standards (OSHA)</p> <p>2.2 Knitting pattern specification is obtained and interpreted</p> <p>2.3 Knitting machine is identified according to organizational procedure</p> <p>2.4 Feed material is identified and loaded onto knitting machine according to product specification</p> <p>2.5 Yarns are passed through guides and tensioners according to pattern specification</p> <p>2.6 Knitting machine setting points are identified according to pattern specification</p> <p>2.7 Knitting machine is set according to pattern specification</p>
<p>3. Operate knitting machines</p>	<p>3.1 Machine safety and operation procedures are observed according to manufacturer manuals and OSHA</p> <p>3.2 Knitting machine is operated to workplace procedure</p> <p>3.3 Knitting process is monitored according to SOP.</p> <p>3.4 Knitting faults are identified and rectified where possible according to SOP</p> <p>3.5 Major faults are reported according to SOP</p> <p>3.6 Grey knitted fabric rolls are doffed according to SOP.</p> <p>3.7 Grey knitted fabric rolls are stored according to organizational procedures.</p> <p>3.8 Knitting waste is disposed according to organisational procedure</p> <p>3.9 Knitting operations are documented according to organizational procedures</p>
<p>4. Control knitting production and quality parameters</p>	<p>4.1 Safety precautions are observed according to occupational health and safety standards (OSHA)</p> <p>4.2 Resources requirements are allocated according to work load</p> <p>4.3 Quality parameters are controlled according to product specifications.</p> <p>4.4 Product in process is inspected according to quality requirement</p> <p>4.5 Production process is controlled according to production requirement</p>

	<p>4.6 Efficient production requirements are identified according to work plan</p> <p>4.7 Process non-conformance is identified and documented according to workplace requirements</p>
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RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variable	Range
1. Feed material may include but not limited to:	<ul style="list-style-type: none"> • Cone • Warp beam
2. Knitting machine is set may include but not limited to:	<ul style="list-style-type: none"> • Yarn tension • GSM • Needle positioning • Cams
3. Knitting faults may include but not limited to:	<ul style="list-style-type: none"> • Dropped loops • Dropped stitch • Press off stitches • Foreign materials • Stains • Loop marks
4. Quality parameters may include but not limited to:	<ul style="list-style-type: none"> • Tension • Speed • Pressure • Temperature • Humidity

REQUIRED SKILLS

The individual needs to demonstrate skills in:

- Knitting machine operations
- Threading
- Interpreting and following information on written job instructions, manufacturer specifications, standard operating procedures, reports and other applicable reference documents

- Communication – oral/written
- Identifying non-compliances
- Completing standard workplace forms, workplace reports and other applicable documents
- Checking for conformance to specifications
- Problem solving
- Creativity and innovation

REQUIRED KNOWLEDGE

The individual needs to demonstrate knowledge of:

- Properties of textile raw materials
- Knitting pattern
- Knitting principle
- Types of needles
- Knitting machines
- Quality control parameters
- Identification of knitted textile material defects and faults
- Safety practices and procedures
- Material handling
- Procedure for safe disposal of waste materials

EVIDENCE GUIDE

This provides advice on assessment and must be in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency.	Assessment requires evidence that the learner 1.1 Performed yarn warping 1.2 Interpreted knitting pattern 1.3 Performed knitting operations 1.4 Operated knitting machines 1.5 Controlled production and quality parameters
2. Resource Implications.	The following resources should be provided: 2.1 Winding machines 2.2 Warping machines 2.3 Knitting patterns 2.4 Testing equipment 2.5 Knitted materials

3. Methods of Assessment.	<p><i>Competency may be assessed through:</i></p> <p>3.1 Practical 3.2 Observation 3.3 Questionnaire 3.4 Case studies 3.5 Written examinations 3.6 Oral presentation</p>
4. Context of Assessment.	<p>Competency may be assessed:</p> <p>4.1 On-the-job 4.2 Off-the –job 4.3 During Industrial attachment</p>
5. Guidance information for assessment.	<p>This unit may be assessed on an integrated basis with others within this occupational sector.</p>

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