

WOVEN FABRIC PRODUCTION (WEAVING)

UNIT CODE: ENG/CU/TEX/CR/03/6/A

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Produce Woven Fabric

Duration of Unit: 160 hours

Unit description

This unit describes the competencies required by a textile technician to produce woven fabric. It involves competencies required to produce warp beam, sized beam, and drawn beams, set up weaving machine, operate weaving machines, control production and quality parameters

Summary of Learning Outcomes

1. Produce warp beam
2. Produce sized beam
3. Produce drawn beams
4. Set up weaving machine
5. Operate weaving machine
6. Control fabric preparation production and quality parameters

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Produce warp beam	<ul style="list-style-type: none">• Workplace safety• Textile yarns• Warping machines• Warp patterning• Warping calculations• Warping machine set up• Warping machine operation• Warping faults and repair techniques• Warping machine monitoring	<ul style="list-style-type: none">• Practical tests• Observation• Written tests• Oral questioning
2. Produce sized beam	<ul style="list-style-type: none">• Workplace safety• Sizing machine• Size liquor preparation• Sizing machine set up	<ul style="list-style-type: none">• Practical tests• Observation• Written tests• Oral questioning

	<ul style="list-style-type: none"> ● Sizing machine operation ● Sizing faults and remedies ● Sizing waste control and disposal ● Sizing operations control ● Sizing machine monitoring 	
3. Produce drawn beams	<ul style="list-style-type: none"> ● Safety procedures ● Textile yarns ● Warp patterns ● Heald frame selection and preparation ● Drawing and denting tools and equipment ● Drawing pattern notation ● Warp drawing and denting ● Quality control in drawing and denting ● Operations control in warp drawing ● Drawing process monitoring and control ● Textile yarns ● Beam handling equipment ● Warp dressing ● Warp knotting/tying machines ● Knotting/tying machine operation ● Knotting machine maintenance ● Quality control in knotting ● Loom pinning ● Knotting process monitoring and control ● Beam handling equipment ● Warp pattern settings ● Pattern cards punching ● Weft pattern changes ● Weft density changes ● Loom pinning 	<ul style="list-style-type: none"> ● Practical tests ● Observation ● Written tests ● Oral questioning

	<ul style="list-style-type: none"> • Beam gaiting process monitoring and control 	
4. Set up weaving machine	<ul style="list-style-type: none"> • Safety procedures • Machine type • Setting points • Setting tools and equipment 	<ul style="list-style-type: none"> • Practical tests • Observation • Written tests • Oral questioning
5. Operate weaving machine	<ul style="list-style-type: none"> • Safety procedures • Types of weaving machines • Weaving machine • Operation of weaving machines • Weaving faults and remedies • Maintenance and care of weaving machine • Weaving process monitoring and control 	<ul style="list-style-type: none"> • Practical tests • Observation • Written tests • Oral questioning
6. Control fabric preparation production and quality parameters	<ul style="list-style-type: none"> • Safety procedures • Production specifications • Work implementation planning • Work allocation • Control of resources to ensure smooth work flow • Machine monitoring points • Process fault identification • Process fault rectification • Waste sorting and disposal • Production and efficiency calculation • Process documentation 	<ul style="list-style-type: none"> • Practical tests • Observation • Written tests • Oral questioning

Suggested Methods of Instructions

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;
- Visiting lecturer/trainer from the Plants service and repair sector;
- Industrial visits.

Recommended Resources

- Warping machines
- Sizing machines
- Draw-in frame
- Heald frames
- Drawing and denting knives and hooks
- Warp tying/Knotting machine
- Warp beam carrying equipment
- Weaving machine
- Yarns on suitable packages
- Sizing chemicals
- Sizing cooking equipment
- Steam
- Weight bridge
- Droppers
- Reed
- Looms

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