



Australian Government

Department of Education, Employment and Workplace Relations

FPISAW3221B Profile saw blanks

Release: 1

FPISAW3221B Profile saw blanks

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to calculate blade lengths, and to produce tooth profiles to enterprise orders and specifications

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPISAW3221A Profile saw blanks

Application of the Unit

Application of the unit

The unit involves profiling saw blanks in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for profiling	<p>1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to profiling saw blanks are identified and followed</p> <p>1.2. Work order is reviewed and checked with appropriate personnel</p> <p>1.3. Band, wide band and gang saws to be profiled are calculated for production</p> <p>1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations</p> <p>1.5. Profiling process is planned in line with site procedures and environmental requirements</p> <p>1.6. Communication with others is established and maintained in line with OHS requirements</p>
2. Profile blanks	<p>2.1. Key dimensions of saw are calculated</p> <p>2.2. Calculated length of blank is obtained or cut from ribbon stock</p> <p>2.3. Press is set up with punches to suit saw dimensions</p> <p>2.4. First tooth is punched in blank to provide alignment for other teeth</p> <p>2.5. Remaining teeth are punched to required pitch and tooth profile</p> <p>2.6. Performance of profiling equipment is assessed for required changes</p> <p>2.7. Saw blanks damaged during the process that cannot be repaired are disposed of in line with site procedures and environmental requirements</p> <p>2.8. Profiling process and equipment faults are investigated, recorded and reported in line with site requirements</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit

REQUIRED SKILLS AND KNOWLEDGE

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely profile saw blanks
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for profiling saw blanks
- Environmental protection requirements, including the safe disposal of waste material, minimising carbon emissions and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for profiling saw blanks
- Environmental risks and hazards
- Characteristics of metal and saws
- Profiling methods
- Teeth pressing and punching methods
- Saw condition assessment
- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their safe use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently profile saw blanks within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to profiling saw blanks
- following organisational policies and procedures relevant to profiling saw blanks
- profiling saw blanks in line with the work order and within prescribed organisational requirements
- operating profiling equipment
- setting up punch and die sets or other equipment used for profiling saw teeth

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of

EVIDENCE GUIDE

workplace relevant contexts) together with application of required knowledge

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements: are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and

RANGE STATEMENT

may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- machine isolation and guarding
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements
may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements
may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS, emergency and evacuation procedures

RANGE STATEMENT

- ethical standards
 - recording and reporting requirements
 - equipment use and maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Work order** is to include:
- instructions for profiling band, wide band and gang saw blanks in designated equipment
- and may also include:
- instructions for the environmental monitoring of work and procedures
 - environmental care requirements relevant to the work
- Appropriate personnel** may include:
- supervisors
 - suppliers
 - clients
 - colleagues
 - managers
- Band, wide band and gang saws** are to include:
- large heavy duty saws used widely in the Forestry Industry
- Profiling** is the process of making band, wide band and gang saw blanks in preparation for joining or welding
- Equipment** may include:
- power fly presses
 - punch systems
- Communication** may include:
- verbal and non-verbal language
 - constructive feedback
 - active listening
 - questioning to clarify and confirm understanding
 - use of positive, confident and cooperative language
 - use of language and concepts appropriate to individual social and cultural differences
 - control of tone of voice
 - body language
- Key dimensions** are to include:
- blade width
 - length

RANGE STATEMENT

- pitch
 - gullet depth
 - hook and back clearance angles
 - number of teeth
 - manufacturer's specifications
 - existing saw and site documentation
 - data of timber processing requirements
 - sawmill processes
- Blanks** are to include:
- new blades ready for use after calculation of length, geometry and pressing
- Ribbon stock** is the role of blade material, straight on both edges awaiting cutting to length and pressing
- Press** is the equipment which provides weight and cutting power to achieve the saw blade profile
- Punches** are housed in the press and provide the cutting pattern for the profile of the saw blade and teeth
- Pitch** is to include: is the distance between tips of the teeth
- Tooth profile** is to include: is the shape of the teeth in line with the material being cut
- Performance**
- is how effectively the profiling equipment is able to produce tooth profiles that meet manufacturing tolerances, specifications and timeframes
- and is to include:
- edge finish
 - wear rates
 - production rates
 - distortion
- Disposing of** may include:
- recycling saw blanks damaged during the process and cannot be repaired
 - re-using saw blanks damaged during the process and cannot be repaired
- Records and reports** may include:
- profiling of band, wide band and gang saw blanks
 - inspection
 - storage locations
 - quality outcomes
 - hazards

RANGE STATEMENT

- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or other appropriate organisational communication system

Unit Sector(s)

Unit sector No sector assigned

Co-requisite units

Co-requisite units

Competency field

Competency field Sawmilling and Processing