

SSTRR02 Textile Shredding / Fibre Processing Operator

1. Job role

TCF sub-sector	Textile Recycling and Remanufacturing
Functional area	Recycling and Remanufacturing Operations
Job role	SSTRR02 Textile Shredding / Fibre Processing Operator
Job role description	Operates textile shredding, tearing and fibre processing equipment to convert sorted textile materials into reusable fibre streams for recycling and remanufacturing processes. This role is identified as a core occupation within the Mechanical Recycling and Remanufacturing function in the national occupational structure. It plays a critical role in transforming sorted textile inputs into processed fibres suitable for downstream applications such as insulation, nonwoven production, yarn reprocessing and composite materials. The role involves operating shredders, granulators, fibre opening machines and associated processing equipment. The operator must ensure correct feedstock preparation, machine settings and processing conditions to optimise fibre quality, consistency and recovery rates while minimising contamination and degradation. The position works closely with sorting personnel, remanufacturing operators, maintenance technicians and quality teams to ensure efficient material flow and high-quality fibre outputs aligned with circular economy objectives.
Performance expectations	• Operating shredding and fibre processing machinery safely and efficiently • Producing fibre outputs that meet quality and specification requirements • Maximising material recovery and minimising waste • Maintaining consistency in fibre size, composition and quality • Monitoring machine performance and adjusting settings as required • Preventing contamination and cross-material mixing • Maintaining accurate production and batch records • Following WHS and environmental procedures • Supporting continuous improvement in recycling processes
Specialisation	Textile shredding, fibre opening, mechanical recycling, material recovery, fibre quality optimisation

Application in other TCF sectors	Waste management, plastics recycling, paper recycling, nonwoven manufacturing, composite materials production
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2. Key tasks and critical work functions

Key tasks	• Feeding sorted textile materials into shredding and fibre processing equipment • Operating shredders, cutters, granulators and fibre opening machinery • Monitoring machine parameters including speed, load and throughput • Adjusting settings to achieve required fibre size and quality • Removing contaminants and managing material flow • Inspecting processed fibres for consistency and quality • Performing basic equipment cleaning and maintenance • Recording production data and batch traceability information • Following operational, safety and environmental procedures
Critical work functions	• Ensuring processed fibres meet downstream processing requirements • Maximising fibre recovery and minimising material loss • Preventing contamination of fibre streams • Maintaining consistent fibre quality and characteristics • Ensuring safe operation of high-risk machinery • Supporting efficient material flow across processing stages • Maintaining traceability of materials and outputs • Contributing to circular economy and sustainability outcomes

3. Technical skills

Machine operation	Operating shredding, cutting and fibre processing equipment
Material handling	Managing textile feedstock and processed fibres
Process control	Monitoring and adjusting processing parameters
Fibre quality assessment	Evaluating fibre size, consistency and contamination
Equipment maintenance	Performing cleaning and minor maintenance tasks
Data recording	Maintaining production and traceability records
Quality awareness	Understanding downstream processing requirements
Safety practices	Applying WHS procedures for machinery operation

4. Generic Skills

Attention to detail	Ensuring fibre quality and process consistency
Observation skills	Monitoring equipment and material flow
Communication	Working with team members and supervisors

Problem solving	Identifying and resolving processing issues
Teamwork	Supporting integrated recycling operations
Time management	Maintaining throughput and production targets
Adaptability	Responding to varied material inputs
Reliability	Maintaining consistent operational performance

5. Emerging skills

Emerging skills	- Automated and AI-assisted sorting and shredding systems - Advanced fibre recovery and separation technologies - Digital process monitoring and data analytics - Sustainable and low-impact processing methods - Integration with advanced nonwoven and composite manufacturing - Circular economy optimisation and material traceability systems
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6. VET Qualifications and Skill Sets

Entry-level preparation	Certificate II or III in Manufacturing, Process Operations or Recycling
Advanced development	Certificate IV in Manufacturing, Production Technology or Process Operations

7. Job progression

Possible job progression	Processing Assistant → Fibre Processing Operator → Senior Operator → Production Team Leader → Production Manager
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8. Classification

Australian Qualifications Framework	Level 2-4
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 4-3
Open Source Classification of Occupations for Australia (OSCA)	Textile Shredding / Fibre Processing Operator - Recycling and Remanufacturing



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