

SSBIO07 Product Assembly Technician – Acute and Clinical Care Textiles

1. Job role

TCF sub-sector	Biomedical Textiles
Functional area	Manufacturing – Acute and Clinical Care Textiles Production
Job role	SSBIO07 Product Assembly Technician – Acute and Clinical Care Textiles
Job role description	Performs detailed assembly of acute and clinical care textile products, integrating multiple textile and non-textile components into finished medical-grade items that meet strict clinical, safety and regulatory requirements. In the Australian biomedical textiles sector, the Product Assembly Technician plays a critical role in producing items such as surgical gowns, drapes, sterile packs, wound care systems and infection control products. These products often involve multiple layers, fastening systems, barrier materials and specialised construction features that must be assembled with high precision. The role incorporates advanced textile joining, component integration, contamination control and precision assembly techniques to ensure products meet clinical standards for infection control, barrier performance and durability. The role involves assembling textile components, attaching closures, integrating non-textile elements such as fasteners or reinforcements, and ensuring that finished products meet functional, sterility and performance specifications. The technician operates within controlled manufacturing environments and must comply with ISO standards, TGA requirements and internal quality systems. The position works closely with textile production technicians, cleanroom operators, sterilisation teams and quality personnel to ensure assembled products are compliant, traceable and suitable for use in clinical environments.
Performance expectations	- Assembling products to exact clinical and technical specifications - Ensuring consistency and repeatability across assembly processes - Maintaining product integrity and preventing contamination - Minimising defects, rework and material waste - Maintaining traceability of components and assembled products

	- Supporting production throughput and efficiency targets - Following WHS, infection control and clean manufacturing protocols - Maintaining accurate assembly and quality records
Specialisation	Clinical textile assembly, sterile product preparation, multi-component textile systems, infection control products, controlled environment assembly
Application in other TCF sectors	- Medical device assembly - Pharmaceutical packaging and assembly - Defence and protective equipment assembly - Advanced manufacturing and technical assembly environments - Cleanroom-based production industries

2. Key tasks and critical work functions

Key tasks	- Assembling multi-component biomedical textile products - Applying textile joining and integration techniques - Assembling textile components into finished products - Attaching closures, fasteners and reinforcement elements - Preparing products for sterilisation and packaging - Inspecting assembled products for defects and compliance - Maintaining cleanliness and organisation of assembly workstations - Recording assembly data and batch information - Following detailed assembly instructions and specifications - Collaborating with production and quality teams
Critical work functions	- Ensuring assembled products meet clinical safety and performance standards - Maintaining consistency in product construction and quality - Preventing contamination during assembly processes - Supporting traceability of components and finished products - Ensuring compliance with ISO and regulatory requirements - Supporting integration with sterilisation and packaging processes - Maintaining efficiency while ensuring high-quality output

3. Technical skills

Assembly techniques	Constructing multi-component textile products
Equipment operation	Operate sewing, welding and assembly equipment
Textile joining techniques	Industrial sewing (lockstitch, overlock, flatlock), ultrasonic welding, RF welding and heat sealing for fluid-resistant seams
Material integration	Combining textile and non-textile components
Component integration techniques	Attachment of closures (Velcro, snaps, ties), elastic insertion, reinforcement panel integration and multi-layer alignment.
Quality inspection	Identifying defects and ensuring compliance
Specification interpretation	Following detailed assembly instructions
Batch control	Maintaining traceability of components

Tool use	Operating assembly tools and equipment
Documentation	Recording production and quality data
Precision assembly techniques	Template-guided assembly, jig use, dimensional control and repeatable alignment methods.
Cleanroom and contamination-control techniques	Aseptic handling, lint control, controlled workflow sequencing and surface sanitation.
In-line inspection techniques	Visual inspection, functional checks, specification verification and traceability tagging.

4. Generic Skills

Attention to detail	Ensuring precision in assembly work
Communication	Working with production and quality teams
Problem solving	Resolving assembly and quality issues
Teamwork	Supporting integrated manufacturing processes
Time management	Meeting production deadlines
Adaptability	Responding to changing production requirements
Professionalism	Maintaining compliance and quality standards

5. Emerging skills

Emerging skills	- Automation in assembly processes - Integration of smart textile components - Digital tracking and traceability systems - Advanced contamination control practices - Sustainable material integration - Robotics-assisted assembly systems
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6. VET Qualifications and Skill Sets

Entry-level preparation	MST20722 Certificate II in Apparel, Fashion and Textiles or equivalent
Advanced development	MSA30107 Certificate III in Process Manufacturing or equivalent

7. Job progression

Possible job progression	Assembly Operator → Product Assembly Technician → Senior Technician → Production Supervisor → Operations Manager
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8. Classification

Australian Qualifications Framework	Level 2-3
Australian Bureau of Statistics (ABS) Skill Levels	Skill Level 3
Open Source Classification of Occupations for Australia (OSCA)	Product Assembly Technician – Biomedical Textiles



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