

Training Package	Metal and Engineering (MEM05)			HSC Requirements and Advice
Title	Perform manual production assembly			
Unit code	Competency field	Band	Unit weight	HSC Indicative Hours
MEM03001B	Assembly	A	4	35

Unit descriptor	This unit covers assembling components and/or sub-assemblies in a production environment and the testing the components and/or sub-assemblies to ensure compliance with specifications.
Prerequisites	None
Application of the competency	This unit applies to production-orientated assembly operations that are essentially manual in nature and do not require complex adjustments.
Related units	This unit should not be selected when Unit MEM18055B (Dismantle, replace and assemble engineering components) has already been selected. Where the selection and use of tools is required as part of the assembly process, see Unit MEM18001C (Use hand tools) and Unit MEM18002B (Use power tools/hand held operations) as appropriate.

Evidence Guide

The evidence guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the unit descriptor, performance criteria, range statement and the assessment guidelines for the Metal and Engineering Training Package.

Overview of assessment requirements	Context of assessment	Interdependent assessment	Method of assessment
A person who demonstrates competency in this unit must be able to assemble components and/or sub-assemblies in a production environment and test the components and/or sub-assemblies to ensure compliance with specifications.	This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.	This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing manual production assembly or other units requiring the exercise of the skills and knowledge covered by this unit.	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

Evidence Guide cont/d			HSC Requirements and Advice
Consistency of performance	Required skills	Required knowledge	Key Terms and Concepts
Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.	Look for evidence that confirms skills in: <ul style="list-style-type: none"> • following job instructions and standard operating procedures • selecting and using assembly tools, components and sub-assemblies • entering routine and familiar information onto proformas and other standard workplace forms • following oral instruction. 	Look for evidence that confirms knowledge of: <ul style="list-style-type: none"> • application and use of assembly tools and equipment • sequence in which the assemblies are to be performed • storage location of the component/sub-assemblies • required tests and checks • required action for non-conformance • potential damage through the use of inappropriate handling and/or unsafe storage procedures • use and application of personal protective equipment • safe work practices and procedures • hazards and control measures associated with manual production assembly. 	<ul style="list-style-type: none"> • assembly equipment • communication • compliance • components • correct handling and storage of components and assemblies • job sheets • manual and electronic record/input methods • personal protective equipment (PPE) • production data • quality assurance • safe use of tools and equipment • safe work practices and procedures • selection of assembly equipment • sequence of operations • specification/s • standard operating procedures (SOP) • sub-assemblies • tests/checks • use/application of assembly equipment • work instructions and procedures.

Elements	Performance criteria	Range Statement	HSC Requirements and Advice
1 Read and understand job sheets	1.1 Job sheets and instructions are understood and followed correctly.	<p>The range statement provides information about the context in which the unit of competency is carried out. The variables [in bold] and scope [dot points] cater for different work requirements, work practices and knowledge between States, Territories and the Commonwealth, and between organisations and workplaces. The range statement relates to the unit as a whole and provides a focus for assessment. Text in italics in the performance criteria is explained here.</p> <p>The following variables may be present and <i>may include</i>, but are not limited to, the examples listed under the scope. All work is undertaken to state or territory legislative requirements, where applicable.</p>	<p>Learning experiences for the HSC must address:</p> <p>A range of sources for work instructions and procedures including:</p> <ul style="list-style-type: none"> • work schedules • job card/sheet/plans/specifications • standard operating procedures (SOP) • standard operation sheets • Material Safety Data Sheets (MSDS) • diagrams/sketches • regulations/legislation • manufacturing workplace guidelines, policies and procedures • Australian Standards. <p>An awareness of various modes of communication to receive work instructions including:</p> <ul style="list-style-type: none"> • verbal <ul style="list-style-type: none"> - face-to-face (supervisor to employee) - telephone/mobile phone - workplace meetings • written communication <ul style="list-style-type: none"> - work plans - memos/messages - job descriptions/statements - workplace forms - rosters • non-verbal <ul style="list-style-type: none"> - signage - diagrams. <p>Safe work practices and procedures.</p>
2 Select assembly equipment and components	2.1 Assembly equipment is selected according to instructions or job sheets and used to standard operating procedures.		<p>Learning experiences for the HSC must address:</p> <p>A basic knowledge of a range of assembly equipment including:</p> <ul style="list-style-type: none"> • name • characteristics • use • limitations • hazard controls • maintenance.
			Knowledge of the use/application of a range of

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			assembly equipment to produce the desired outcomes. Consideration/s for the selection of assembly equipment including: <ul style="list-style-type: none"> • skills/training • time • cost • occupational health and safety (OHS) requirements • appropriateness for purpose.
	2.2 <i>Components/sub-assemblies</i> are obtained and arranged for assembly.	Components/sub-assemblies <ul style="list-style-type: none"> • parts that make up the sub-assembly and components. 	Learning experiences for the HSC must address: Identification of parts that are contained in components and sub-assemblies. Knowledge of sequence in which assemblies are to be performed. Planning and preparation for a range of task/activities applicable to assembling components and/or sub-assemblies in a production environment.
	2.3 Equipment/tools are used in a safe manner.		Learning experiences for the HSC must address: Safe work practices for using tools and equipment including: <ul style="list-style-type: none"> • following SOP and manufacturer’s specifications before, during and after use • risk management (identifying hazards and implementing control measures) • correct manual handling • safe handling, application and storage of hazardous substances • appropriate use of personal protective equipment (PPE) • regular servicing and maintenance of tools and equipment • selection of appropriate tool for use • working with electricity in a safe manner • adequate ventilation • attaching appropriate safety guards where required.
			Use and application of a range of PPE including: <ul style="list-style-type: none"> • footwear • head protection

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			<ul style="list-style-type: none"> • gloves • protective clothing • respirator • face mask/shield • hearing protection • eye protection. <p>Importance of correct fitting PPE.</p>
3 Assemble components	3.1 Assembly is produced following correct sequence of operations, using selected equipment to standard operating procedures.		<p>Learning experiences for the HSC must address:</p> <p>A basic overview of the role of employees in quality assurance.</p>
	3.2 Production data is <i>recorded/input</i> to standard operating procedures.	<p>Recorded/input</p> <ul style="list-style-type: none"> • by means of production schedules, job sheets, checklists. 	<p>Learning experiences for the HSC must address:</p> <p>An awareness of the importance of correctly recording/inputting production data.</p> <p>Electronic and/or manual record/input methods including:</p> <ul style="list-style-type: none"> • production schedules • job sheets • checklists.
4 Perform tests	4.1 Assembly is <i>tested/checked</i> for compliance to job sheet requirements, following standard operating procedures as required.	<p>Tested/checked</p> <ul style="list-style-type: none"> • carried out according to specification of assembled product. 	<p>Learning experiences for the HSC must address:</p> <p>A definition of:</p> <ul style="list-style-type: none"> • compliance • specification/s. <p>Knowledge of:</p> <ul style="list-style-type: none"> • compliance tests/checks to be undertaken to maintain quality assurance of assembled product • SOP for non-conformance of assembled product to specifications.

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5 Protect assembly from damage	5.1 Components and/or assemblies are handled and stored safely, in a manner least likely to cause damage.		<p>Learning experiences for the HSC must address:</p> <p>An awareness of:</p> <ul style="list-style-type: none"> • potential damage to assembled products through inappropriate handling • safe handling procedures applicable to components and/or assemblies. <p>Issues relating to the storage of components and/or assemblies including:</p> <ul style="list-style-type: none"> • security • climatic affects • OHS considerations • stability • ease of access. <p>Knowledge of methods by which components and/or assemblies are stored and accessed.</p>