



Australian Government

PMASUP246 Disconnect and reconnect non-flared tube fitting joints

Release: 1

PMASUP246 Disconnect and reconnect non-flared tube fitting joints

Modification History

Release 1. Supersedes and is equivalent to PMASUP246A Disconnect and reconnect non-flared tube fitting joints

Application

This unit of competency covers the skills and knowledge required to disconnect and reconnect non-flared tube fitting joints using hand tools.

This unit of competency applies to operators who are required to identify requirements for the work, ensure they are working within their skill level, confirm isolations are in place, apply procedures to disconnect and connect tube fitting joints, undertake checks and inspections, complete records, and identify problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

This unit does not cover the initial installation of tube fittings, high pressure fittings or cone fittings.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Support

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Plan and prepare for job	1.1	Identify work requirements
		1.2	Inspect job site
		1.3	Confirm isolations have been completed to standard

- 1.4 Confirm hazard controls
 - 1.5 Coordinate with appropriate personnel
 - 1.6 Select appropriate tools
 - 1.7 Re-check that work requirements fit within skill level
 - 1.8 Complete required checklists and records
- 2 **Disconnect tube fitting in accordance with procedures**
 - 2.1 Implement hazard controls
 - 2.2 Prepare tools, drip trays, and so on, with appropriate care
 - 2.3 Undo support clamps as required
 - 2.4 Vent as required
 - 2.5 Break joint and drain tube as required
 - 2.6 Identify any skills escalation required
 - 2.7 Manage open pipe to ensure contents are not contaminated or damaged
 - 2.8 Complete checklists and records as required
- 3 **Inspect tube and components**
 - 3.1 Inspect fittings and tube
 - 3.2 Assess degree of misalignment and refer, as required
 - 3.3 Clean fittings as required
 - 3.4 Identify any damage or defects
 - 3.5 Confirm compliance of components and refer, as required
 - 3.6 Identify any problems and take action
- 4 **Reconnect tube fitting in accordance with**
 - 4.1 Check components are to specification
 - 4.2 Apply sealants/seals as required

procedures	4.3	Assemble the joint to procedures
	4.4	Re-check alignment
	4.5	Reattach support clamps as required
	4.6	Complete checklists and records as required
5 Finish the job	5.1	Make a final check of joint alignment
	5.2	Organise required checks
	5.3	Confirm joint integrity as required
	5.4	Complete checklists and records as required

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework

The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)
- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory or federal legislation, and these must not be

compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures. Procedures are written, verbal, visual, computer-based or in some other form, include one or more of the following:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

Hazards Hazards include one or more of the following:

- gases and liquids under pressure
- structural hazards
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- plant services (steam, condensate and cooling water)
- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, dusts or vapours
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

Work requirements Work requirements may include one or more of the following:

- fitting, tubing and thread specifications
- fitting brand
- specific sealing method and type
- process line and process materials

- parts and equipment required
- local detectors requiring isolation
- required skill level
- conflicting work

Work requirements come from briefings, handovers, and work orders and include one or more of the following:

- compliance documentation
- product specifications
- nature and scope of tasks
- achievement targets
- operational conditions
- lighting conditions
- plant or equipment defects
- hazards and potential hazards
- coordination requirements or issues

Job site

Inspecting job site includes identifying one or more of the following:

- location
- authorisations required
- access and egress needs
- hazards
- recent work undertaken on joint
- fitting type (matches specification)

Implementing hazard controls

Implementing hazard controls includes one or more of the following:

- selection and use of appropriate personal protective equipment (PPE)
- obtaining appropriate authorisations
- checking required isolations
- controlling other work in area
- controlling access to area
- using gas tester
- verifying and confirming isolation
- safe fitting breaking procedure (line of fire)

Inspecting components

Inspecting tube fitting components includes one or more of the following:

- full tube insertion
- orientation of ferrules

- correct tube deburring
- for signs of damage, defects or deterioration in all components
- confirming compliance of components

Components Components includes, but are not limited to, one or more of the following:

- fitting body
- fitting nut
- front ferrule
- rear ferrule
- tube
- tube clamps and support saddles

Refer Refer means to refer the issue to the person with the required skills, knowledge and/or authority to deal with the matter.

Checklists and records Checklists and records include one or more of the following:

- paper or electronic based
- verbal/radio reports
- reporting items found which require action

Action Action in response to problems includes the following:

- determining problems needing action
- accessing and applying relevant technical and plant data
- applying appropriate problem solving techniques to determine possible fault causes
- rectifying problem using appropriate solution within area of responsibility
- following through items initiated until final resolution has occurred
- reporting problems outside area of responsibility/ability to resolve to designated person

Action includes one or more of the following:

- replacing existing components with new components
- carrying out minor maintenance within operator's skill level
- identifying and reporting problems outside operator's competence
- identifying and controlling hazards related to tube fitting joints

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of the following:

- fitting leaks
- blockages/build-up/fouling
- erosion/wear
- ancillary equipment problems
- support clamps incorrectly attached
- worn threads
- misalignments
- lack of full tube insertion
- ferrule missing or reversed
- incorrect installation

Known solutions are drawn from one or more of the following:

- procedures
- training
- remembered experience

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>