

Unit of Competency CPCPCM3023

Fabricate and install non-ferrous pressure piping

Application

This unit specifies the skills and knowledge required to fabricate and install non-ferrous pressure piping.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, and regulatory or certification requirements.

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

Elements and Performance Criteria

1. Identify installation requirements.	<ul style="list-style-type: none">1.1 Access, read and determine requirements to fabricate and install non-ferrous pressure piping from relevant job plans and specifications, codes, Australian standards, manufacturer's specifications and jurisdictional requirements.1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.
2. Prepare for work.	<ul style="list-style-type: none">2.1 Create a materials list and collect materials.2.2 Set up oxy-acetylene equipment according to workplace and WHS procedures.2.3 Select and check serviceability of appropriate tools and equipment including personal protective equipment (PPE).
3. Fabricate, install and test pipe system.	<ul style="list-style-type: none">3.1 Set out pipelines and connection points according to drawings and specifications or job instructions.3.2 Use oxy-acetylene equipment according to workplace and WHS procedures.3.3 Install pipework in accordance with relevant job plans and specifications, codes, Australian standards, manufacturer's specifications and jurisdictional requirements.3.4 Test installed pipework according to s relevant codes, Australian standards, manufacturer's specifications and jurisdictional requirements.3.5 Shut down and dismantle oxy-acetylene equipment according to workplace and WHS procedures.
4. Clean up.	<ul style="list-style-type: none">4.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state and territory legislation and workplace policies and procedures.4.2 Clean tools and equipment, check for serviceability reporting any damage, store and secure.

Foundation skills

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

Unit Mapping Information

Supersedes and is equivalent to CPCPCM3023A Fabricate and install non-ferrous pressure piping.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPCM3023

Fabricate and install non-ferrous pressure piping

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- fabricating, installing and testing a DN20 copper line from a supply point to three fixed outlets, supported and clipped according to relevant job plans and specification, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements with a minimum:
 - o one 15 mm mechanical bend
 - o one 20 mm mechanical bend
 - o one 15 mm spring bend
 - o one 20 mm spring bend
 - o one 15 mm capillary elbow
 - o one 20 mm capillary elbow
 - o one expanded silver brazed joint
 - o one silver brazed copper to brass joint
 - o two branch formed silver brazed joints
 - o one mechanical flared joint
 - o branches connecting at least two other non-ferrous materials, ensuring branches and bends are square.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- fabrication, installation and testing process for non-ferrous pressure pipe systems
- relevant statutory authorities' requirements and standards related to fabricating, installing and testing non-ferrous pressure pipe systems
- effect of heat and other products on the properties of polymer pipe
- types of non-ferrous materials, including joining techniques
- hot works permit
- how to access relevant information, including codes and standards
- tools, materials and brazing equipment used to fabricate and install non-ferrous pressure piping
- work health and safety (WHS) requirements to fabricate and install non-ferrous pressure piping.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed in the Standards for Registered Training Organisations.

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Links

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