

Unit of Competency CPCPCM2048

Cut and join sheet metal

Application

This unit specifies the skills and knowledge required to cut and join sheet metal in the plumbing and services industry.

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

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

Elements and Performance Criteria

1. Identify cutting and joining requirements.	1.1 Access, read and determine sheet metal cutting and joining requirements from relevant job plans and specifications, codes, Australian standards, manufacturer's specifications and jurisdictional requirements. 1.2 Identify and apply organisational work health and safety (WHS) and environmental requirements.
2. Prepare for work.	2.1 Determine material quantities. 2.2 Create a materials list and collect materials. 2.3 Select appropriate tools and equipment including personal protective equipment (PPE).
3. Cut and join sheet metal.	3.1 Mark out sheet metal in accordance with relevant job plan and specifications. 3.2 Check measurements and cut sheet metal. 3.3 Clean and prepare surfaces for joining. 3.4 Align, fasten and join sheet metal using an appropriate sealing method.
4. Clean up.	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 CPCPCM2048A Cut and join sheet metal.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPCM2048

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Performance Evidence

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

- constructing two different sheet metal products, using two of the following joining techniques:
 - o grooved seam
 - o knock up joint
 - o peened joint
 - o simple lap
 - o Pittsburgh lock

and two of the following fastening techniques:

- o spot weld
- o riveted
- o screwed
- o bolted

including the application of one approved sealing method.

Knowledge Evidence

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

- the characteristics of different sheet metal materials
- electrolysis and the problems associated with using incompatible products
- preparation of material for sealing
- approved sheet metal sealants
- how to access relevant information, including codes and standards
- tools, materials and equipment used to cut and join sheet metal
- work health and safety (WHS) requirements for cutting and joining sheet metal.

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.

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