Title | Dismantle, inspect, assemble and test components
---|---
Level | 4
Credits | 15

**Purpose**
People credited with this unit standard are able to dismantle and clean, inspect and replace, and assemble and test components.

**Classification**
Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering

**Available grade**
Achieved

**Entry information**

**Critical health and safety prerequisites**
Unit 21912, *Apply safe working practices on an engineering worksite*, or demonstrate equivalent knowledge and skills.

**Explanatory notes**

1. **Reference**

2. **Definitions**
   - *Component* – a complex, constituent part or aspect of a larger item of machinery/equipment and may include but is not limited to valves (gate, ball, and diaphragm), pumps, gearboxes, fans, and couplings.
   - *Industry practice* – safe and sound trade practices generally accepted by competent persons within the mechanical engineering industry.
   - *Worksite procedures* – documents that include: worksite rules, codes, and practices; equipment operating instructions and maintenance schedules; documented quality management systems; and health and safety requirements.

3. **Range**
   Evidence across all outcomes is required for the dismantling, inspection, assembly, and testing of at least two components.
Outcomes and evidence requirements

Outcome 1

Dismantle and clean components.

Evidence requirements

1.1 Components and supporting information are prepared prior to dismantling and cleaning.

Range supporting information may include but is not limited to – manufacturer's specifications, repair, parts publications, drawings.

1.2 Tools and procedure for dismantling are identified.

1.3 Components are dismantled in accordance with industry practice.

1.4 Components are cleaned in accordance with manufacturer's recommendations and industry practice.

Range methods may include but are not limited to – hand, spray, immersion, ultrasonic.

1.5 Disposal of cleaning agents is in accordance with worksite procedures.

Outcome 2

Inspect and replace components.

Evidence requirements

2.1 Components are inspected for conformance to manufacturer's specifications or customer's specifications.

Range may include but is not limited to – visual, dimensional, non-destructive testing, ultrasonic, (not x-ray or gamma ray).

2.2 Faulty components are assessed for repair or replacement, in accordance with worksite procedures and industry practice.

2.3 Defective components are replaced in accordance with worksite procedures and industry practice.

Outcome 3

Assemble and test components.

Evidence requirements

3.1 Components are assembled in accordance with worksite procedures and industry practice.
3.2 Components are tested and conformance to manufacturer’s specifications or customer’s specifications is confirmed.

3.3 Component records are completed in accordance with worksite procedures.

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<tr>
<th>Replacement information</th>
<th>This unit standard was replaced by unit standard 30438.</th>
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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

### Status information and last date for assessment for superseded versions

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<th>Process</th>
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### Consent and Moderation Requirements (CMR) reference


**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.