

Title	Assemble and fit precision components		
Level	3	Credits	10

Purpose	<p>This unit standard is for people engaged in assembly and fitting of mechanical engineering components to fine tolerances, such as those specified in ISO 286-1 and ISO 286-2.</p> <p>People credited with this standard are able to: prepare, assemble and fit, and test and document precision components.</p>
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Classification	Mechanical Engineering > Mechanical Assembly
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Available grade	Achieved
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Explanatory notes

- 1 **References**
 Health and Safety in Employment Act 1992.
 Occupational Safety & Health Service. *Guidelines for Guarding Principles and General Safety for Machinery*. Wellington: Department of Labour, 1995.
 ISO 286-1:2010, *Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes – Part 1: Basis of tolerances, deviations and fits*.
 ISO 286-2:2010, *Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes – Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts*.
- 2 **Definitions**
Job specifications – instructions relevant to the safe completion of a specific task, such as technical specifications, assembly instructions, drawings, parts lists, material specifications, standards, codes of practice, test and commissioning procedures, and verbal instructions.
Worksite procedures – operational procedures put in place by the candidate’s employer. These include site safety procedures, equipment operating procedures, job procedures, quality assurance, and procedures for the handling and disposal of materials and waste.
- 3 **Assessment Information**
 - a All activities must comply with relevant legislative and/or regulatory requirements, which include, but are not limited to, the Health and Safety in Employment Act 1992.
 - b Safe working practices are to be followed at all times.
- 4 **Range**
 Evidence of four assemblies is required.

Outcomes and evidence requirements

Outcome 1

Prepare to assemble and fit precision components.

Evidence requirements

- 1.1 Job specifications are interpreted and task requirements determined.
- 1.2 Components are inspected and compared against inventory and job specifications, and any discrepancies rectified in accordance with worksite procedures.
- 1.3 Components are cleaned in accordance with job specifications and worksite procedures.

Outcome 2

Assemble and fit precision components.

Evidence requirements

- 2.1 Components are assembled and fitted in accordance with job specifications.
- 2.2 Seals are fitted and sealing agents are applied in accordance with job specifications.
- 2.3 Lubricants are applied in accordance with job specifications.

Outcome 3

Test and document precision component assembly.

Evidence requirements

- 3.1 Component assemblies are tested, and adjusted where necessary, to confirm conformance with job specification.
- 3.2 Performance of assemblies is documented in accordance with job specification and worksite procedures.
- 3.3 Assemblies are stored in accordance with worksite procedures.

Replacement information	<p>This unit standard was replaced by unit standard 30439.</p> <p>This unit standard and unit standard 22913 replaced unit standard 2388.</p>
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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

Process	Version	Date	Last Date for Assessment
Registration	1	20 June 2006	31 December 2022
Rollover and Revision	2	17 November 2011	31 December 2022
Review	3	20 July 2017	31 December 2022

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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.