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## Overview

This standard is about supporting the assembly of components, equipment and systems in engineering construction activities.

You will need to be able read, extract and interpret basic information from drawings and specifications in order to assist in the assembly of components in engineering construction whilst adhering to health and safety legislation, regulations and safe working practices.

In the context of this standard, your responsibility is limited to working within clearly defined procedures and following instructions from trade/craft personnel. In some cases, you may still be expected to refer to others for final authorisations, even though you remain responsible for identifying and implementing decisions within the limits of your responsibility.

### **This standard is for**

\*\*This standard is for those that are supporting activities in engineering construction.

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## Performance criteria

### You must be able to:

1. work safely at all times, complying with health, safety, environmental and other relevant legislation, regulations, guidelines and local rules or procedures
2. ensure that the **work environment**, materials, equipment and tools are suitably prepared for the work activities to be undertaken in accordance with local rules and guidelines
3. utilise relevant instructions, drawings and specifications
4. use only approved and appropriate methods and techniques to assemble components in their correct positions
5. ensure the appropriate temporary support systems are in place, as required
6. assist in securing the components, under supervised instruction where appropriate, using the specified connectors and securing devices
7. check that the assembly is completed to the requirements detailed in the instructions, drawings and specifications
8. undertake foreign material exclusion procedures if required
9. seek clarification and confirm that the assembly is complete as specified
10. reinstate the work area
11. deal promptly and effectively with problems within your control and report those that have been and those that cannot be solved

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## Knowledge and understanding

### You need to know and understand:

1. relevant legislative, regulatory and local requirements or procedures and safe working practices including your responsibilities with regards to reporting lines and procedures
2. preparation and reinstatement requirements in respect of the work area, materials, tools and equipment, and the possible consequences of incorrect actions in these areas
3. the basic principles and use of the engineering drawings and specifications
4. the fundamental methods and techniques used to assemble components
5. tools and equipment used to assemble components
6. the types of fastening used to assemble components including:
  - how to identify them
  - their grade and tensile strength
  - the materials they are made from and how this effects their usage
  - cross contamination and how this can be prevented
7. component handling and transportation equipment and procedures
8. methods of providing temporary support
9. how to visually identify defects on assembled components and what to do if found?
10. appropriate quality checks and the possible consequences of incorrect actions in these areas
11. tool and equipment control: the correct use of relevant tools and equipment and your individual responsibility for the use, care and security of those you use

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## Scope/range

### **Work environment**

Typical work environments could include:

- engineering construction sites
- controlled operations
- offshore installations
- maintenance sites
- nuclear sites
- repair sites

Work environments may be open or restricted spaces:

- at height
- confined spaces
- control rooms
- designated work areas
- explosive atmospheres
- existing plants and structures
- fabrication workshops
- in plant rooms
- inside structures, system and plant
- on access structures (scaffold)
- on open structures
- onshore and offshore installations
- shafts
- shipyards
- tunnels

ECISAEC10

Support the assembly of components, equipment and systems in engineering construction



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| Developed by             | ECITB  |
| Version Number           | 1  |
| Date Approved            | 02 Mar 2021  |
| Indicative Review Date   | 07 Jun 2025  |
| Validity                 | Current  |
| Status                   | Original   |
| Originating Organisation | Engineering Construction Industry Training Board   |
| Original URN             | ECISAEC10  |
| Relevant Occupations     | Engineering  |
| Suite                    | Supporting Activities in Engineering Construction  |
| Keywords                 | Engineering; supporting; read; extract; specifications; drawings; requirements; component; handling; transportation; tools; equipment; assembly; fastenings; securing devices; defects; alignment; securing; dimensions; |

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