

Overview

This unit identifies the competences you need to make effective use of text, numeric and graphical information, by interpreting and using technical information extracted from engineering drawings, technical manuals, reference tables, specifications, charts or electronic displays, in accordance with approved procedures. You will be required to extract the necessary data from the various specifications and related documentation, in order to establish and carry out the work requirements, and to make valid decisions about the quality and accuracy of the work produced. Your responsibilities will require you to comply with organisational policy and procedures for obtaining and using the documentation applicable to the activity. You will be expected to report any problems with the use and interpretation of the data that you cannot personally resolve, or are outside your permitted authority, to the relevant people. You will be expected to work to instructions with minimum supervision, taking personal responsibility for your own actions and for the quality and accuracy of the work that you carry out. Your underpinning knowledge will provide a good understanding of the types of documentation available for use, and will provide an informed approach to applying engineering instructions and procedures. You will be able to read and interpret the documentation available, and will know about the conventions, symbols and abbreviations, in adequate depth to provide a sound basis for carrying out the activities to the required specification.

This unit deals with the following:

- 1 Using and interpreting engineering data and documentation

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices AS THEY APPLY TO YOU.

Previous Version

Unit 4.22 SEMTA National Occupational Standards in Packaging (STM4)
(SEMTA ECS No/1.13)

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Using and interpreting engineering data and documentation

Performance criteria

You must be able to:

- P1 use the approved source to obtain the required drawings and specifications
- P2 correctly interpret the drawing and specifications
- P3 identify, extract and interpret the required information
- P4 use the information obtained to ensure that work outputs meets the specification
- P5 deal promptly and effectively with any problems within your control and report those which cannot be solved
- P6 report any inaccuracies or discrepancies in drawings and specifications
- P7 check the currency and validity of the data and documentation used
- P8 exercise care and control over the documents at all times
- P9 correctly extract all necessary data in order to carry out the required tasks
- P10 seek out additional information where there are gaps or deficiencies in the information obtained
- P11 deal with or report any problems found with the data
- P12 make valid decisions based on the evaluation of the engineering information
- P13 return all documentation to the approved location on completion of the work
- P14 complete all necessary production documentation
- P15 use information extracted from mechanical and/or electrical/electronic documentation
- P16 use information extracted from related documentation
- P17 extract information

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Knowledge and understanding

You need to know and understand:

- K1 the information sources used for the data and documentation that you use in your work activities
- K2 how the required documents are obtained and how to check that they are current and valid
- K3 how to use other sources of information to support the data (such as electronic component pin configuration specifications, standard reference charts for limits and fits, tapping drill reference charts, bend allowances required for material thickness, electrical conditions required for specific welding rods, mixing ratios for bonding and finishing materials)
- K4 the procedures for reporting discrepancies in the data or documents and for reporting lost or damaged drawings/documents
- K5 care and control procedures for the documents and the importance of returning them to the designated location on completion of the work activities
- K6 imperial and metric systems of measurements, tolerance and fixed reference points
- K7 the meaning of the different symbols and abbreviations found on the documents that you use (such as surface finish, electronic components, weld symbols, linear and geometric tolerances, and pressure and flow characteristics, torque values)
- K8 care and control procedures for documents and how damage or graffiti on them can lead to scrapped work
- K9 the extent of your own responsibility, when to act on your own initiative to find, clarify and evaluate information, and whom you should report to if you have problems that you cannot resolve

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Using and interpreting engineering data and documentation

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Relevant occupations Engineering and manufacturing technologies; Manufacturing technologies; Process, Plant and Machine Operatives; Process Operatives

Suite Packaging

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