

Specification of Competency Standards
for the Manufacturing Technology Industry
Unit of Competency

Functional Area - Product Quality Control and Testing

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| Title | Monitor and standardize the measurement methods of various geometric dimensions and tolerance |
| Code | 106531L4 |
| Range | This unit of competency is applicable to corporations of Manufacturing Technology Industry. Practitioners should be capable to understand relevant knowledge of all kinds of geometric dimensions and tolerance measure and methods, standardize and monitor the measure methods and data |
| Level | 4 |
| Credit | 6 (For Reference Only) |
| Competency | <p>Performance Requirements</p> <p>1. Understand relevant knowledge of monitor and standardisation of various geometric dimensions and tolerance measure and methods</p> <ul style="list-style-type: none"> • Understand the international and regional standards and requirements of geometric dimensions and tolerance measure and methods • Understand the working principles and applications of commonly used detection tools and instrument of geometric dimensions and tolerance, such as projectors, height gauge, coordinate measuring instrument (CMM) and needle gauge • Understand the meaning of all the labels on the drawing, such as planes and tolerance requirements • Understand the accuracy, operability, repeated and limitations of various measurement methods, • Understand the foundation concepts of measurement error, including the sources and classification of measurement error • Understand the latest development trends and techniques of measurement of geometric dimensions and tolerance measure and methods <p>2. Monitor and standardise various geometric dimensions and tolerance measure and methods</p> <ul style="list-style-type: none"> • Set the appropriate geometric dimensions and tolerance measure and methods, frequency and equipment in accordance with the requirements and specifications on the drawing • Examine and evaluate the effectiveness and reliability of the measure data of all kinds of geometric dimensions and tolerance measure and methods, and continuous improve it • Evaluate the measurement errors caused by different measurement methods and make appropriate processing • Compile relevant guidelines, standardise various geometric dimensions and tolerance measure and methods and carry out regular monitoring <p>3. Professional handling of monitor and standardisation of various geometric dimensions and tolerance measure and methods</p> <ul style="list-style-type: none"> • Ensure the compiled measure methods are accepted by customers and compliance with international standards • Ensure that the surveyors operate the compiled measure methods |
| Assessment Criteria | <p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Set the appropriate geometric dimensions and tolerance measure and methods in accordance with the requirements and specifications on the drawing • Capable to compile relevant guidelines, standardise various geometric dimensions and tolerance measure and methods and carry out regular monitoring |

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| | <ul style="list-style-type: none">• Capable to examine and evaluate the effectiveness and reliability of the measure data of all kinds of geometric dimensions and tolerance measure and methods, and continuous improve it |
| Remark | |