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

Functional Area - Product Design and Development

Title	Integrated structural design of plastic moulds apart from injection mould
Code	106467L4
Range	This unit of competency is applicable to the design and development departments of Manufacturing Technology Industry. Practitioners should be capable to understand the principles of plastic moulds apart from injection mould, integrate customers requirements and relevant international standards and carry out relevant assembly and structural design
Level	4
Credit	6 （For Reference Only）
Competency	Performance Requirements 1. Understand relevant knowledge of integrated structural design of plastic moulds apart from injection mould • Understand customers' requirements on product appearance and functions • Understand relevant international standards of design of plastic moulds apart from injection mould, such as the SPI/SPE Standard of American Association of Engineers (SPI/SPE Standard) • Understand the concept, structure, function, processing methods, geometric dimensioning & tolerancing, Rotational Molding and soft vinyl molds • Recognise all steel types and applications of plastic extrusion, vacuum molding, blow molding, rotocasting (soft vinyl), Rotational Molding and other plastic molding apart from injection mould, select the appropriate materials, manufacture all kinds of plastics and various parts of rubber mould • Understand the commonly used types and specifications of the surface treatment of plastic moulds apart from injection mould • Recognise the types, structures, specifications and working principles of the commonly used equipment of plastic moulds apart from injection mould 2. Carry out integrated structural design of plastic moulds apart from injection mould • Carry out concepts, structure, function, geometric dimensions and tolerances of plastic moulds apart from injection mould, such as vacuum molding and blow moulding • According to the requirements of different products, select the appropriate mould and steel • According to the appearance and functionality required of different products, select the appropriate mould for surface treatment • Integrate and formulate the structural design of plastic moulds apart from injection mould • Communicate with internal and external customers and stakeholders and achieve consistent standards 3. Professional handling of integrated structural design of plastic moulds apart from injection mould • Detailedly consider elements such as safety, risk, productivity, quality, environmental protection and cost, carry out integrated structural design of plastic moulds apart from injection mould and meet all aspects of requirements
Assessment Criteria	The integrated outcome requirements of this unit of competency are: • Capable to collect and integrate customers requirements and relevant international standards, formulate integrated structural design of plastic moulds apart from injection mould

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	• Capable to consider the appearance and functions requirements of different products, complete the whole integrated structural design of plastic moulds apart from injection mould
Remark	