

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

Functional Area - Product Manufacturing

Title	Equipment setting, carry out metal extrusion production, and problems solving
Code	106519L4
Range	This unit of competency is applicable to the production department of metal extrusion products manufacturing corporations. Practitioners should be capable to understand the knowledge of collating equipment and all kinds of metal extrusion, so as to carry out all processing procedures and solve production problems
Level	4
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <ol style="list-style-type: none"> 1. Understand relevant knowledge of collating equipment and all kinds of metal extrusion <ul style="list-style-type: none"> • Understand the types and characteristics of commonly used extrusion material, such as aluminum alloys, copper alloys and composite materials • Understand the lubrication methods, types and functions of different extrusion technologies needed • Understand the classification of extrusion, including Forward Extrusion, Backward Extrusion, Compound Extrusion and Radial Extrusion • Understand all kinds of effects of processing parameters and conditions on extruded product quality, including extrusion speed, friction conditions, extrusion barrel temperature and extrusion temperature • Understand relevant collating equipment of metal extrusion and the processing methods and techniques • Understand the common product defects of all kinds of metal extrusion processing, including surface folded, surface lines, shrinkage porosity and cracks etc • Understand the types, structures, working principles, specifications, applications and operating methods of the relevant equipment of metal extrusion processing 2. Carry out all kinds of metal extrusion <ul style="list-style-type: none"> • Proper identification of the specifications and trademark of metal extrusion materials • Select and operate the correct equipment, carry out all kinds of extrusion for different materials • According to the factors of products shape, precision, materials etc, select the appropriate extrusion machines to carry out metal extrusion • Effectively assemble, disassemble and correct the workpiece and tooling of die extrusion machines • Carry out simple adjustments, maintenance and repair of extrusion machines • Identify and systematically analyse the common quality problems and causes of metal extrusion products and improve them 3. Professional handling of collating equipment and all kinds of metal extrusion <ul style="list-style-type: none"> • Follow safety guidelines and related codes of practice, in accordance with the requirements of product specifications and production efficiency, carry out all kinds of metal extrusion and solve production problems
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> • Capable to collate equipment, carry out metal extrusion and solve production problems in accordance with the drawings and requirements of technologies and techniques • Capable to supervise the metal extrusion machine and relevant equipment independently and make simple daily maintenance

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