

1. Title	Non-destructive test (NDT) - magnetic particle inspection
2. Code	EMCUMA201A
3. Range	Use magnetic particle inspection method, at servicing centres or locations with operating equipment, to inspect equipment or materials for surface and sub-surface cracks and weld defects.
4. Level	2
5. Credits	2
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Techniques and working principles of inspecting equipment or materials for cracks</p> <ul style="list-style-type: none"> ◆ Understand the principles of magnetic particle inspection used to inspect equipment or materials for surface and sub-surface cracks ◆ Understand that the magnetic particle inspection method is applicable to magnetic metals or materials only ◆ Understand the advantages and limitations of using dry particles, wet particles and fluorescent particles in magnetic particle inspection <p>6.2 Methods and procedures of inspecting equipment and materials for cracks</p> <ul style="list-style-type: none"> ◆ Capable to apply the magnetic particle inspection method effectively to inspect the surface and sub-surface of equipment or materials for cracks and record the findings ◆ Capable to use different magnetic particle inspection tools for testing according to work pieces and cracks ◆ Capable to inspect different positions for surface and sub-surface cracks ◆ Select dry particles, wet particles or fluorescent particles for inspection according to work pieces and required precision ◆ Capable to mark the position with cracks clearly
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <p>(i) Capable to use magnetic particle inspection method correctly to inspect equipment or materials for surface and sub-surface cracks; record and mark the positions and size of the cracks; and</p> <p>(ii) Capable to point out the advantages and limitations of dry particles, wet particles and fluorescent particles in magnetic particle inspection.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person is familiar with liquid penetration inspection.