

1. Title	Test and commission water systems of central air-conditioning systems	
2. Code	EMACIT401A	
3. Range	Apply specialized knowledge and skills to test and commission water systems of central air-conditioning systems at locations with central air-conditioning or central air-conditioning machine rooms.	
4. Level	4	
5. Credit	9	
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of testing and commissioning water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> <li>◆ Understand the details and importance of testing and commissioning water systems of central air-conditioning systems</li> <li>◆ Understand the regulations and code of practice on testing and commissioning water systems of central air-conditioning systems</li> </ul> <p>6.2 Methods and procedures of testing and commissioning water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> <li>◆ Clean and wash chilling water systems, including: <ul style="list-style-type: none"> <li>• Flush chilled water system pipes</li> <li>• Clean and wash chilled water system pipes with water pump by forced recirculation method</li> <li>• Clean and wash chilled water system pipes with chemicals</li> </ul> </li> <li>◆ Perform running test for chilled water system equipment, including: <ul style="list-style-type: none"> <li>• Check for the defects of the water pumps, pipes and all equipment and accessories of the chilled water system</li> <li>• Perform running test for the water pumps, pipes and all equipment of the chilling water system</li> </ul> </li> <li>◆ Perform running test for chilled water system equipment, including: <ul style="list-style-type: none"> <li>• Check for the defects of the water pumps, pipes, cooling towers and all equipment and accessories of the condensing water system</li> <li>• Perform running test for the water pumps, pipes, cooling towers and all equipment and accessories of the condensing water system</li> </ul> </li> <li>◆ Perform water balancing for the chilled water system, including: <ul style="list-style-type: none"> <li>• Adjust the water flow of all water mains and branches of the chilled water system to meet the design requirements</li> <li>• Adjust the water flow of all chilled water system equipment to meet the design requirements</li> <li>• Adjust the water flow of pumps of the chilled water system to meet the design requirements</li> </ul> </li> </ul>	

	<p>6.3 Professionalism in testing and commissioning water systems of central air-conditioning systems</p> <ul style="list-style-type: none"> <li>◆ Perform testing and commissioning of water systems of central air-conditioning systems according to legal requirements and codes of practice</li> </ul>
<p>7. Assessment Criteria</p>	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> <li>(i) Capable to apply specialized knowledge and skills to complete the testing and commissioning of water systems of central air-conditioning systems.</li> </ul>
<p>8. Remarks</p>	<p>The credit value of this unit of competency is set on the presumption that the person already possesses general knowledge of central air-conditioning systems.</p>