

1. Title	Repair and maintain reciprocating chiller plants
2. Code	EMACOR312A
3. Range	Perform repair and maintenance of reciprocating chiller plants at chiller plant rooms.
4. Level	3
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Knowledge of repairing and maintaining reciprocating chiller plants</p> <ul style="list-style-type: none"> ◆ Understand the construction and working principles of reciprocating chiller plants ◆ Understand the methods of eliminating typical faults in reciprocating chiller plants ◆ Understand the details of reciprocating chiller plant maintenance <p>6.2 Methods and procedures of repairing and maintaining reciprocating chiller plants</p> <ul style="list-style-type: none"> ◆ Perform routine maintenance for reciprocating chiller plants, including: <ul style="list-style-type: none"> • Checking and monitoring if the chiller plants operate properly • Removing and charging refrigerant oil for maintenance after the chiller plant shuts down • Performing leak check, recovery and charging of refrigerants ◆ Perform routine repair for reciprocating chiller plants, including: <ul style="list-style-type: none"> • Performing routine repair for the chiller plant compressor • Performing routine repair for the condenser and evaporator • Performing routine repair for the refrigerant pipes, water pipes and valves ◆ Troubleshoot and repair faults in reciprocating chiller plants, including: <ul style="list-style-type: none"> • Find out causes of faults in chiller plants according to the operating condition and operating parameters of the chiller plants • Repair the faults after finding out the causes <p>6.3 Professionalism in repairing and maintaining reciprocating chiller plants</p> <ul style="list-style-type: none"> ◆ Follow the instructions of the repair and maintenance manual to perform repair and maintenance for reciprocating chiller plants ◆ Understand the code of practice to undertake the tasks of repairing and maintaining reciprocating chiller plants
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to complete repair and maintenance of various types of reciprocating chiller plants systematically and efficiently; and</p> <p>(ii) Capable to follow the code of practice to undertake the tasks of repairing and maintaining reciprocating chiller plants.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses elementary knowledge of chilled water type air-conditioning and refrigeration systems.