

1. Title	Install high temperature and pressure valves
2. Code	EMPEIN211A
3. Range	Perform tasks for installing high temperature and pressure valves in general industrial plants, power plants or other places. "High temperature" means the materials carried by the pipes can be 100°C or above; "high pressure" means 30bar or above; and "materials" include water (or chemical liquid), steam, oils and gas.
4. Level	2
5. Credits	3
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Construction and basic working principle of high temperature and pressure valves</p> <ul style="list-style-type: none"> ◆ Know about the construction and basic working principle of high temperature and pressure valves, including: <ul style="list-style-type: none"> • Basic composition of high temperature and pressure pipe system • Linkage between pipes and valves • Structure and functions of high pressure steam valve and metal/graphite gasket ring • Various types of gasket ring materials and fillers <p>6.2 Methods and procedures of installing high temperature and pressure valves</p> <ul style="list-style-type: none"> ◆ Prepare valve seat and valve disc according to manufacturer's requirements ◆ Follow the correct steps to install high temperature and pressure valves, including the following items: <ul style="list-style-type: none"> • Set various types of valves such as gate valve, globe valve, ball valve, pressure relief valve and non-return valve • Adjust flange joint • Seal the contact surface of valve seat • Assist in performing Trevitest and alignment test ◆ Test valve pressure according to manufacturer's requirements <p>6.3 Professionalism in installing high temperature and pressure valves</p> <ul style="list-style-type: none"> ◆ Follow the requirements of the codes of practice and manufacturers' installation guidelines to perform high temperature and pressure valve installation tasks, and the installation work should pass the leakage and hydraulic pressure tests ◆ Assist competent persons to conduct pressure test according to safety procedures
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to perform high temperature and pressure valve installation tasks under instruction; and</p> <p>(ii) Capable to assist competent persons to conduct high temperature and pressure valve leakage test under instruction.</p>
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of valve installation and repair.