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| 1. Title | Test and commission air system of central air-conditioning systems | |
| 2. Code | EMACIT402A | |
| 3. Range | Apply specialized knowledge and skills to test and commission air system 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 air system of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Understand the details and importance of testing and commissioning air system of central air-conditioning system ◆ Understand the regulations and code of practice on testing and commissioning air system of central air-conditioning systems <p>6.2 Methods and procedures of testing and commissioning air system of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Check that all air system equipment and accessories have no surface defect ◆ Test that the air system equipment function properly ◆ Perform air leak test for the air duct system, including: <ul style="list-style-type: none"> • Use visual observation method initially with smoke machine to check for air leaks from the air duct system • Use air duct leakage testing machine to conduct air leak test for the air duct system according to HVCA standard (DW series) ◆ Perform air balancing for the air system of central air-conditioning systems , including: <ul style="list-style-type: none"> • Adjust the air volume of all main air ducts and branch air ducts to meet the design requirements • Adjust the air volume of all supply air outlets and return air outlets to meet the design requirements • Adjust the air volume of ventilation fans and air-handling units to meet the design requirements <p>6.3 Professionalism in testing and commissioning air system of central air-conditioning systems</p> <ul style="list-style-type: none"> ◆ Perform testing and commissioning of air system of central air-conditioning systems according to legal requirements and codes of practice | |

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| 7. Assessment Criteria | The integrated outcome requirement of this unit of competency is: (i) Capable to apply specialized knowledge and skills to complete the testing and commissioning of air system of central air-conditioning systems |
| 8. Remarks | 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. |