



JOB PROFILE CHART FOR :

1 MEKANIK PENYEJUKBEKUAN DAN PENYAMANAN UDARA- DOMESTIK - TAHAP 1
2 MEKANIK PENYEJUKBEKUAN DAN PENYAMANAN UDARA-DOMESTIK - TAHAP 2
3 JURUTEKNIK PENYEJUKBEKUAN DAN PENYAMANAN UDARA - DOMESTIK - TAHAP 3

| DUTY | | | TASK | | | | | | | | | | | | |
|--|--|--|---|---|--|---|---|-------------------------------------|---|----------------------------|--|---|---|-------|----|
| APPLY SAFETY PRACTICE | Comply with shop and equipment safety rules | | Use safety attire while performing various jobs | | Adhere to site safety requirements | | Demonstrate the use of fire fighting equipment | | Apply emergency first-aid techniques | | Perform daily inspections | | | | |
| | 01 | 01.01 | L1 | 01.02 | L1 | 01.03 | L1 | 01.04 | L1 | 01.05 | L1 | 01.06 | L1 | | |
| USE AND MAINTAIN HAND AND MACHINE TOOLS | Use various types of hand tools for a given job | | Use various type of power tools for a given job | | Maintain proper inventory for hand and machine tools | | | | | | | | | | |
| | 02 | 02.01 | L1 | 02.02 | L1 | 02.03 | L1 | | | | | | | | |
| APPLY MEASURING AND TESTING INSTRUMENTS | Use appropriate measuring instruments for a given job | | Use appropriate testing instruments for a given job | | Use appropriate gauges for a given job | | Verify the functionality of various measuring instruments | | Verify the serviceability of the various testing instruments | | Verify the serviceability of the various gauges | | | | |
| | 03 | 03.01 | L1 | 03.02 | L1 | 03.03 | L1 | 03.04 | L2 | 03.05 | L2 | 03.06 | L2 | | |
| READ TECHNICAL DRAWING | Identify various symbols applicable for refrigeration and air-conditioning trade | | Draw free hand sketches for a given job | | Draw schematic wiring diagrams for single phase supply | | Draw schematic wiring diagram for three phase supply | | Interprate schematic wiring diagram for single and three phase supply | | Interprate first and third angle projections | | | | |
| | 04 | 04.01 | L1 | 04.02 | L1 | 04.03 | L1 | 04.04 | L2 | 04.05 | L2 | 04.06 | L2 | | |
| FABRICATE AND JOIN TUBINGS | Identify various type of tubings used in refrigeration and air-conditioning system | | Select various types of tube fittings used in refrigeration and air-conditioning system | | Fabricate tubings to required shapes and dimensions | | Perform flaring swaging and pinching for various type and size of tubings | | Set Oxy-acetylene equipment | | Perform brazing and soldering for various type of joints | | Perform leak tests for fabricated tubing joints | | |
| | 05 | 05.01 | L1 | 05.02 | L1 | 05.03 | L1 | 05.04 | L1 | 05.05 | L1 | 05.06 | L1 | 05.07 | L1 |
| | | Identify various type of pipes used in refrigeration and air-conditioning system | | Identify various type of pipe fittings used in refrigeration and air-conditioning | | Fabricate pipes to required shapes and dimensions | | Tread pipes to given specifications | | Connect the system pipings | | Perform leak tests for fabricated piping joints | | | |
| | 05.08 | L2 | 05.09 | L2 | 05.10 | L2 | 05.11 | L2 | 05.12 | L2 | 05.13 | L2 | | | |
| JOIN AND FABRICATE METAL WORE | Identify the type of fabrication required | | Mark project and carry out cutting, filing, drilling and taping | | Cut metal to the required shape and dimension | | Join metal by brazing | | Join metal by riveting | | Join metals by gas welding | | Join metal by arc welding | | |
| | 06 | 06.01 | L1 | 06.02 | L1 | 06.03 | L1 | 06.04 | L1 | 06.05 | L1 | 06.06 | L2 | 06.07 | L2 |

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| Fabricate metals to required shapes and dimensions | |
| 06.08 | L2 |

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| INSTALL VARIOUS COMPONENTS USED IN REFRIGERATION AND AIR-CONDITIONING SYSTEM | Lay-out components in accordance to refrigeration systems | | Perform leak tests | | Vacuum the system | | Charge and operate the system to required specifications | | Assemble and connect all necessary components in accordance to | | Install all necessary accessories as to the given lay-out diagram | | Check the operations of the system | |
| | 07 | 07.01 | L1 | 07.02 | L1 | 07.03 | L1 | 07.04 | L1 | 07.05 | L2 | 07.06 | L2 | 07.07 |

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| Comission the system | |
| 07.08 | L3 |

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| INSTALL AND COMMISSION REFRIGERATION | Survey the area to be installed | | Install the equipment | | Connect the equipment to power supply | | Carry-out testing and comissioning | | Hand over equipment to the customer | |
| | 08 | 08.01 | L2 | 08.02 | L2 | 08.03 | L2 | 08.04 | L2 | 08.05 |

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| INSTALL AND COMMISSION AIR-CONDITIONER | Survey the area to be installed | | Select and size the equipment | | Identify and select the materials and tools | | Install supporting structures | | Install the equipment | | Connect controls to power supply | | Carry out testing and comissioning of installation | |
| | 09 | 09.01 | L2 | 09.02 | L2 | 09.03 | L2 | 09.04 | L2 | 09.05 | L2 | 09.06 | L2 | 09.07 |

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| Hand over of completed installation to the customer | |
| 09.08 | L2 |

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| PERFORM REGULAR PREVENTIVE MAINTENANCE FOR REFRIGERATION AND AIR-CONDITIONING | Acquire routine maintenance schedule chart | | Check and clean air filters | | Check and service drain pipes | | Check and service condensers | | Check and service evaporators | | Check and service compressors | | Lubricate all moving parts | |
| | 10 | 10.01 | L1 | 10.02 | L1 | 10.03 | L1 | 10.04 | L1 | 10.05 | L1 | 10.06 | L1 | 10.07 |

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| Check the condition of brackets and casing | | Check operating condition of the machine | | Check the service control system | | Check and service the wiring lay-out | | Check and service the motor and the blower fan | | Confirm the operating condition of the equipment | |
| 10.08 | L1 | 10.09 | L2 | 10.10 | L2 | 10.11 | L2 | 10.12 | L2 | 10.13 | L3 |

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| SERVICE ELECTRICAL AND ELECTRONIC SYSTEM | Read and interpret schematic wiring diagram | | Diagnose the electrical system | | Diagnose the electronic system | | Check the load consumption | | Check the connection and continuity of the circuits and rectify defects | | Check and service the motor | | Check and service the components for control circuit | |
| 11 | 11.01 | L2 | 11.02 | L3 | 11.03 | L3 | 11.04 | L3 | 11.05 | L3 | 11.06 | L3 | 11.07 | L3 |

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| Test and confirm the electrical and electronics system | |
| 11.08 | L3 |

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| TROUBLE SHOOT AND REPAIR REFRIGERATION EQUIPMENT | Trouble shoot on defective refrigerations | | Trouble shoot the refrigeration system | | Repair and replace defective components in the refrigeration system | | Check and trouble shoot the electrical / electronic system | | Repair and replace defective electrical / electronics control | | Perform comissioning tests | | Check and trouble shoot the controls | |
| 12 | 12.01 | L2 | 12.02 | L2 | 12.03 | L2 | 12.04 | L2 | 12.05 | L2 | 12.06 | L2 | 12.07 | L3 |

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| TROUBLE SHOOT AND REPAIR AIR-CONDITIONING EQUIPMENT | Trouble shoot on defective air-conditioner | | Check and trouble shoot the refrigeration system | | Check and trouble shoot the electrical / electronics system | | Repair and replace defective components in the air-conditioning system | | Repair the electrical / electronics components in the system | | Check and trouble shoot the controlling devices | | Repair the controlling devices | |
| 13 | 13.01 | L2 | 13.02 | L2 | 13.03 | L2 | 13.04 | L3 | 13.05 | L3 | 13.06 | L3 | 13.07 | L3 |