INTRODUCTION TO REFRIGERATION COURSE

Course Duration: 10 Days
Target Market: Any person wanting to enter the refrigeration industry,
Target Industries: Refrigeration Industries, Electrical Contracting,

Recommended Entry Criteria

- 1-year experience in the Electrical and or Refrigeration Industry.

Purpose

This course is aimed at persons who wish to obtain a better understanding of how the Refrigeration cycle operates and functions and covers the installing and repairing these smaller units and covers amongst other things:

Course Outcomes

- Introduction to Refrigeration including related tools
- Swaging and flaring of copper tubing including welding thereof
- Replacement of Compressors including electrical circuitry
- Charging of small domestic type Refrigerators and Freezers
- Commissioning and general fault finding

Documents required for Enrolment

- Application Form
- Proof of 1 years' relevant experience in the relevant industry
- Certified ID

Modules

Description	Measurable Outcomes
Domestic Refrigeration	Trade Specific Tools
	• Gauge Manifolds
	• Swaging and Flaring Kit
	• Pipe Cutter
	• Pinch off tool
	Copper to Copper Welding
	• Performing a swage on ¼" copper pipe
	• Performing a flare on ¼" Copper pipe
	• Performing copper to copper weld
	• Performing copper to steel Brazing
	Understanding basic thermodynamics
	• 5 Laws of refrigeration
	Components of the small Domestic refrigerator & freezer and how they function
	• Compressor
	• Condenser
	• Evaporator
	• Capillary tube
	• Thermostat
	• Hot Gas Defrost
	Charging the systems
	• Evacuation of the system
	• Vapour Charge
	• Liquid Charge
	• Critical Charge
	Fault-finding
	• Inspect for visible defects;
	• Operate and test electrical circuitry;
	• Operate and test refrigeration circuitry;
	• Locate faulty component or defect;
	• Specify components and materials. Input Faults
	• Repair Faults
	Commission the small Refrigerator and freezer Unit
	• Operate and assess the unit;
	• Approve or reject the unit.