

OCCUPATIONAL TOOLS AND EQUIPMENT LIST

Refrigeration and Air Conditioning Mechanic



Government of Newfoundland Labrador
Department of Immigration, Skills and Labour
Apprenticeship and Trades Certification Division

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Preface

This document is intended as a companion to the March 2019 Plan of Training for the Refrigeration and Air Conditioning Mechanic occupation. It identifies the necessary tools and equipment required by apprentices and training institutions for the completion of apprenticeships.

Acknowledgements

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Note:

The numbers suggested in the following Tools and Equipment List represents the required minimum. Please verify this list with your selected training institution.

Tools and Equipment List
REFRIGERATION AND AIR CONDITIONING MECHANIC

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT			
Item	Units for Individual Students	Required for Entry (E) Advanced (A) Both (B)	Comments
STUDENT TOOLS AND PPE			
Fireproof Coveralls	1	B	
Safety Glasses	1	B	
CSA Approved Safety boots	1	B	
Adjustable Wrench	1-6 in, 1-10 in., 1-12 in	B	
Ball Peen Hammer	1	B	
Calculator	1	B	
Combination Ratchet Valve Wrench	1	B	
Combination Wire Crimpers	1	B	
Digital Pocket Thermometer	1	B	
Electrical Side Cutters	1	B	
Flaring Tool Kit	1	B	
Flash Light	1	B	
Hacksaw	1	B	
Linesman Pliers	1	B	
Mechanics Toolbox (with lock)	1	B	
Mirror	1	B	
Needle Nose Pliers	1	B	
Quick Pic Screwdriver	1	B	
Set Imperial Allen Keys	1	B	

SECTION A: TOOLS AND EQUIPMENT REQUIRED BY STUDENT

Item	Units for Individual Students	Required for Entry (E) Advanced (A) Both (B)	Comments
Set of Combination Wrenches	1/4 - 15/16 in. set	B	
Slip Joint Pliers (Channel Locks)	1	B	
Swaging Tool Set or Various Size Swaging Punches	1	B	
Tape Measure	1	B	
Tube Cutter	1/4 - 1 1/8 in.	B	
Tube Reaming Tool	1	B	
Utility Knife	1	B	

Note: If identifying sets, please include specific information.

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
SHOP EQUIPMENT				
Air Compressor and Regulator 15 scfm@90 lbs	1	2	E	
Alignment Tools	2 sets (dial indicators)	3	B	
Bending Tools and Springs	5 sets	2		Shop - 1 Set Spring 3 Sets Leavers – 3/8", 1/2", 5/8"
Bolt Cutter	1 set	1	B	
Brush, Wire	15	1	B	
Carbon Dioxide (CO ₂) Cylinder and Regulator	1	3	E	
Caulking Gun	5	1	E	
Chalk Line	1	3	B	
Charging Manifold (Service Gauges)	5	3	B	
Chisels (Cold Set)	3	1	B	
Computer	5	1	E	
Cordless Drill - (1/2")	3	1	B	
Crimper	5	1	B	
Crowbar	2	1	B	
Drills (Electric)	3/8" - 2; 1/2" - 1	1	B	
Fin Combs	5	1	B	
Flaring Tools	5	1	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION

Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Funnel	3	2	B	
Glue Gun	1	1	B	
Grease Gun	1	1	B	
Ground Detectors (rigger)	1	1	E	
Hacksaw	15	1	B	
Hazardous Waste Container	2	3	B	
Hose - Water 50'	2	2	B	
Ladder - Step	3 - 6'; 2 - 8'	2	E	
Laser Level	1	3	E	
Levels (Bubble)	5	3	B	
Levels (Line)	2	2	B	
Levels (Precision)	2	2	B	
Nitrogen Cylinder and Regulator	4	2	B	
Oil Pump	2	7	B	
O-Ring Removal Tool	2	2	B	
Oxy-acetylene Torch Kit	5	1	B	
Padlock	5	2	B	
Pipe Cutters (up to 2 ½")	3	2	B	
Pipe Dies (up to 2 ½")	2 sets	2	B	
Pipe Threaders (Power)	1	2	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Pitot Tube	1	3	B	
Printer	2	2	B	
Propane Torch Kit	8	1	B	
Pry Bars	5	1	B	
Pullers (Wheel)	3 set	2	B	
Punch (Combination Set)	3	2	B	
Reamer (Pipe)	5	2	B	
Recovery Cylinder	5	3	B	
Recovery/Recycle Unit	5	3	E	
Saws (Hole) Kit up to 3" Sets	2	3	E	
Saws (Jig) Sabre	1	1	E	
Saws (Power/Electric) Reciprocating	3	1	E	
Scrapers (Gasket)	3	1	B	
Socket Set – 3/8" / ½" comb.	5	3	B	
Soldering Equipment (Iron/Fun)	2 each	7	B	
Squares (Machinist Combination)	5	3	B	
Stapler	1	1	B	
Straight Edge	8 - 12"	1	B	
Swaging Tools	5 sets	3	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Tin Snips	8 (left and right, straight)	2	B	
Tube Cutter up to 2"; up to 1 1/8"	10 mini; 3 - 2"	2	B	
Turbo Torch Kit	5 sets	2	B	
Utility Knife	6	2	B	
Vacuum Cleaner	1	1	E	
Vacuum Pump	5	2	E	
SAFETY				
Eye Wash Station	As required by OHS regulations	15	B	
First Aid Kit	As required by OHS regulations			
Fire Extinguishers	As required by OHS regulations			
TOOL POUCH (Common Tools carried by Mechanic)				
Cutters (Side)	5	1	B	
Cutters (Wire)	5	1	B	
Flashlight	5	1	B	
Hammer (Ball Peen - 1 lb.)	5	1	B	
Mirror	3	1	B	
Nut Drivers	5 sets	1	B	
Pliers (Needlenose)	5	1	B	
Pliers (Slip Locking)	5	1	B	
Pliers (Snap Ring)	2	1	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Refractometer	1	1	E	
Screwdrivers (Phillips)	5 sets	3	B	
Screwdrivers (Robertson)	5 sets	3	B	
Tape Measure (12')	5	1	B	
Vice Grips	5	1	B	
Wire Strippers	5	1	B	
Wrenches (Adjustable) 6", 8", 10", 12"	5 sets	2	B	
Wrenches (Allan)	5 sets	2	B	
Wrenches (Open End) 1 1/8"	5 sets	2	B	
Wrenches (Pipe)	3 - 10"; 3 - 14"; 3 - 18"	1	B	
Wrenches (Torque)	2 each	1	B	
Wrenches (Valve)	6	1	B	
HOISTING AND RIGGING EQUIPMENT				
Chain Fall	1	2	E	
Come-Along	1	2	E	
Scaffolding	1	3	E	Rental
Sling (Assorted)	2 sets	3	E	
MEASURING AND TESTING INSTRUMENTS				
Air Flow Meter	2	2	B	
Analyzers (Capacitor Anemometer)	1	3	B	
Analyzers (Vane)	1	3	B	
Compound Gauge	6	2	B	
Electronic Air Balancing Tools	1 set	3	B	

SECTION B: TOOLS AND EQUIPMENT REQUIRED BY TRAINING INSTITUTION				
Item	Units per 15 Students	Maximum Students per Unit	Required for Entry (E) Advanced (A) Both (B)	Comments
Electronic Temperature Meter	5	3	B	
Leak Detectors (Electronic)	5	3	B	
Manometers (U-Tube)	1	3	B	
Micron Gauge	5	3	B	
Milliamp Meter	2	2	B	
Clamp on Multi Meter/Bench Mount Multimeter	5	5	B	
PH Testing Kit	2	3	B	
Psychrometer Sling	3	3	B	
Tachometer	1	3	B	
Thermometer (Dry and Wet Bulb)	5	2	B	
Thermometer (Infrared)	3	2	B	
Vacuum Gauge	5	2	B	
Water Analysis Kit	1	2	B	
Weigh Scales	1 - minimum to 300 lbs. 2 - minimum to 100 lbs.	3	B	

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