



Heating, Ventilation, and Air Conditioning

Tools Required First Day of Classes

Estimated Cost: \$2,500

The following is a list of tools each student is required to obtain and maintain. This list is only a minimum; you might wish to add to it for your convenience. With proper care, these tools will help you earn a living for a long time. If you already have some of these tools, bring them in and your lab instructor will advise you if they meet the requirements. Remember that value is not price alone; a good tool with proper care will last years longer than a cheap tool and will pay for itself many times over. These tools need to be ordered in advance so that you have them by the first day of school. Most of these are specialty tools, which require you to buy them at wholesale suppliers. If there are any questions at all about the tool list, contact Paul or John (HVAC Instructors).

Quantity	Description Program Required Tools
1	Safety Glasses
1	Work Gloves
1	6" Crescent Wrench (Crescent #AC16V)
1	10" Crescent Wrench (Crescent #AC110V)
1	12" Crescent Wrench (Crescent #AC112CV)
1	14" Pipe Wrench (Ridgid #31020)
1	Refrigeration Ratchet Wrench (Imperial #60613)
1	Hex key insert for refrigeration ratchet(Malco RRW 3/16)
1	3/8" Socket Set – 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4
1	10" Tongue & Groove Pliers (Channel Lock #430)
1	7" Vise Grips (Vise Grip #7WR)
1	7 1/8" Needle Nose (Klein #D203-7)
1	8" Diagonal Cut Pliers (Klein #D248-8)
1	Solder less Crimp Tool with bolt cutter (Klein #1001)
1	1/4" long shaft magnetic nut driver(Klein or Malco)
1	5/16" long shaft magnetic nut driver(Klein or Malco)
1	11/32" hollow shaft nut driver(Klein or Malco)
1	1ea. 1/4" X 6" straight- 3/16" X 6" straight- #2 X 6" Phillips screw drivers
1	9 pc. Long Arm Hex Key Kit (6" long) (Allen #56034)
1	Three Corner Tapered File (Nicholson #14224)
1	R410a orbital flaring tool
1	Rolls scotch 33+ Electrical Tape (3M #33)
1	25' Tape Measure (Lufkin #SV125)

- 1 Punch & Chisel Set (pin punch, center punch, cold chisel)
(Mayhew #751-K or Allen #25676)
- 1 Hacksaw (Lenox #2012)
- 1 Flashlight (Maglite #M2A01H)
- 1 1/4" and 5/16" Magnetic Driver (chucks for drill)
- 1 13 pc. Drill Bit Kit 1/16" through 1/2" (New England Carbide #525217)
- 2 Tool Boxes – one for sheet metal tools and the other box for the rest of the tools
- 2 Padlocks – (2 lockers) (Master #3008D)
- 1 R410a mini split adaptor 1/4" X 5/16"
- 1 Little "imp" Tube Cutter 1/8" – 5/8" OD (Imperial #TC- 1050SP)
- 1 Regular Size Tube Cutter 3/8" – 1 1/8" OD (Imperial #TC1000SP)
- 1 Vernier Caliper with Depth Gauge (General #721)
- 1 Inspection Mirror (extendable)
- 1 Valve Core Tool – removes valve cores (comes with extra
cores) (J/B #A32004 or Robinair #40536)
- 1 Digital refrigeration gauge set with hoses and temperature sensors
- 1 Pocket Level (Malco L5)
- 1 Friction Lighter – (torches)
- 1 Digital Thermometer 40 – 300 degrees (UEI #PDT550)
- 1 Clamp-on Meter – volts, ohms, amps, temp. , capacitance, and
DC micro amps (Fieldpiece, UEI, or Fluke)
- 1 Utility Knife
- 1 12V or larger drill and impact kit with 2 batteries and charger
(Milwaukee, DeWalt, Makita or equivalent)

Sheet Metal Tools

- 1 Aviation Snips – right cuts (Malco #M2007)
- 1 Aviation Snips – left cuts (Malco #M2006)
- 1 Aviation Snips – bulldogs (Malco #M2005)
- 1 Combination Snips (Malco # MC14N)
- 1 Hand Seamer (Malco #S2)
- 1 Folding Tool (Malco #12)
- 1 5 Blade Crimper (Malco #C5)
- 1 Hand Notcher (Malco #N1)
- 1 Dividers (Malco #24)
- 1 Setting Hammer (Malco #SH3)
- 1 Adjustable Scribe (Malco #A60)
- 1 Scratch awl (Malco #A2)