

August 12, 2015

The following list is a general guide and is to be considered the **minimum** tools and safety equipment a student will need to perform given tasks in the lab and on projects for ACR Courses 101, 105, 106, 107, 109, 110, 122, 130, 131, 140, 150, 160, 210, 223 and 231. Piedmont Technical College will furnish major tools for student use.

Adjustable Wrench-2- (10"-12")- (1) each

AC & refrigeration reversible ratchet box wrench

Allen wrench set

Assorted screwdrivers (a 6 in 1 type works very well)

Awl (scratch awl)

Combination wrench set ¼" through ¾"

Flaring tool

Flashlight (2D Mag Lite)

Gage manifold set with 3-low loss fittings for R-22 (Yellow Jacket P# 19109)*

Gage manifold set with low loss fittings for R-410A – (1) each (Yellow Jacket P# 93844)*

The above two sets of gage manifold set may be substituted with the set below :

Gage manifold set with 3-low loss fittings- Fieldpiece SMAN 3 or 360 or 4 or 460

Hammer- 16 oz. ball peen or carpenters claw

Hex key wrench Insert- 3/16" - (liquid line service valve key) -Malco P#RRW 3/16

Hex key wrench Insert- 5/16" - (vapor (suction) line service valve key) Malco P# RRW 5/16

Inspection mirror

Leather work gloves for brazing and general use

Lineman pliers (9"most popular) (Klein)

Mechanics work gloves

Needle nose pliers (Klein)

Nut drivers – 3/16" through ½" (Klein)

Safety glasses-clear lens-must have side shields or curved for side protection

Schrader valve tool- core storer (Diversitech P# VCR-1)

Schrader valve changing tool/Vacuum Charging- HVAC/R service tool- (Ritchie P# 18975) or Appion P# MGAVCT

Slip joint pliers (Pump pliers- Klein 10")

Swaging Tool Kit- 3/16" through 1- 1/8" swages with swaging blocks for same (YJ P# 60455 - Large

Swage/flare kit, 3/4 - 1-1/8 P# 60461 - Swaging punches & bar, 3/16 - 5/8)

Tape Rule-25'

Tool bag (extra-large- large enough to carry all tools on list with space to spare) or two tool bags

Tubing cutter (small)

Tubing cutter (standard)

SC 77 or SC 440 Fieldpiece meter (**No Substitution**) & Fieldpiece ATC1-K - Temperature Pipe Clamp

AVG2 Digital Vacuum Gauge Fieldpiece (**No Substitution**)* unless built into Fieldpiece SMAN Gauges

Sling psychrometer or Digital psychrometer (Yellow Jacket P#69008)

Sheet metal hammer

Wire crimpers

Wire strippers

Bulldog snips

RH offset sheet metal snips

LH offset sheet metal snips

Hand Seamer

Hand Crimper

Straight edge – 48"

Plastic Tubing Shear

Black Sharpie Marker

*Students are strongly encouraged to mark or etch their last name on to all their tools. If a class has students with the same last name, a first name or initial is also desirable

* All vendor quotes must be for industry standard, brand tools. The following brands are acceptable: Malco, Yellow Jacket/Ritchie, Klein, Rigid, Imperial, Fluke, Fieldpiece, Robinaire, Bacharach or Craftsman. All other brands must have an instructors' approval. Sheet metal tools are preferred to be Malco brand.

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