



HVAC Tool List

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. The first items on the list marked * will be needed for the first day.

PTC has a limited number of tools for lab use if you don't have them. You will need your own tools as soon as possible. Please see your instructor if you need guidance.

*Leather work gloves for brazing and general use

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

SC 77 or SC 440 Fieldpiece meter & Fieldpiece ATC1-K - Temperature Pipe Clamp- (needed by week 5)

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)

Black Sharpie Marker

Bulldog snips

Combination wrench set $\frac{1}{4}$ " through $\frac{3}{4}$ "

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 refrigerant 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 carpenter's claw

Hand Crimper

Hand Seamer

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

Lineman pliers (9"most popular) (Klein)

Mechanics work gloves

Needle nose pliers (Klein)

Nut drivers – 3/16" through 1/2" (Klein)

Plastic Tubing Shear

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")

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

Sheet metal hammer

Sheet metal snips- LH offset

Sheet metal snips – RH offset

Straight edge – 48"

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)

AVG2 Digital Vacuum Gauge Fieldpiece unless built into Fieldpiece SMAN Gauges

Wire crimpers

Wire strippers

* The following brands are acceptable: Malco, Yellow Jacket/Ritchie, Klein, Rigid, Imperial, Fluke, Fieldpiece, Robinaire, Bacharach or Craftsman. Sheet metal tools are preferred to be Malco brand.

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

Robert Hill hill.r1@ptc.edu

PTC HVAC DEPT. 864.941.8475 or cell-864.938.5054