CO₂ Leak Detectors

I have the pleasure to work with the refrigeration side of this industry. With the increased use of R-744 (CO₂) in the refrigeration process, my question pertains to leak detectors. I currently use a Bacharach PGM-IR CO₂ monitor. To be very honest, I don’t particularly care for this unit. I have asked around and have been told that this is “top of the line” equipment. I have had several issues where I have had to call the manufacturer and reset the specs for the IR voltage and Digipot number. I’m curious what your thoughts are on leak detectors for CO₂?

Inficon has released a new leak detector (D-TEK Stratus), for the standard CFC/HCFC/HFC refrigerants, with an LCD display that will show ppm presence of the refrigerant being detected. It will have the “Cloud Hunting Mode” used to find high concentrations of the refrigerant, and also a “Pin Point Mode”, used to locate the source of the leak. In addition, an optional sensing cartridge for CO₂ will shortly be available, so that with a simple cartridge change, this standard refrigerant leak detector will become a CO₂ leak detector, making it a leak detector that can detect all refrigerants that one might expect to see in a refrigeration application.

While everyone has their own idea of what the perfect leak detector should include, it’s best to fully research the available models before making a purchase. I would think that most of the reps for leak detectors would be happy to spend some time with you to give an in depth overview of their product, and also give you some hands-on play time with the detector.

Talking to other technicians about their experiences can provide valuable feedback too. And for the social media inclined person, HVAC-Talk has an plethora of technicians willing to share their opinions and offer assistance on all kinds of issues, including what their favorite tools and instruments are.

Now, one final thing to consider: The average human exhales approximately 2.3 lb of CO₂ per day. As such, when checking for CO₂ leaks it would be important to make sure that the person searching for leaks is not breathing on the probe, as it might falsely set off the detector.

Question from Curtis Waite of Flint, MI. Answer from Dave Demma, National Accounts Manager, United Refrigeration, Inc.