TOOLS & TEST INSTRUMENTS:
Staying Safe on the Job

MAKING SURE SAFETY IS A PRIORITY IN THE FIELD.

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Working HVACR technicians can get into some tricky situations in the course of a job; it is simply part of the business. Even if an environment looks safe that does not mean you don't have to worry about safety. Being aware of the personal injury risks that technicians face on a daily basis not only creates a better workplace but can potentially save lives. That is why techs must consider safety when stocking their toolboxes and choosing their tools and test instruments. The right tool can make all the difference.

Different work situations call for a variety of tools and test instruments to stay safe. A carbon monoxide detector, for example, can let you know if levels become dangerous. Proper clothing, such as cut-resistant gloves, can mean the difference between completing a job and losing a finger. Anti-fog protective eyewear can keep your field of vision clear and safe during critical moments. The list below highlights these innovative products and more as techs pick tools and test instruments that do the job and keep them and their customers safe.

In addition to the safety products listed below there are a number of apps that can help techs stay safe and limit or eliminate injuries in the field. The National Safety Council's (www.nsc.org) Emergency Medical Response app helps techs quickly find medical information when things go wrong on the job. Technicians can browse the alphabetical index, access categories of content, or even search to find trusted medical information and procedures.

OSHA (www.osha.gov), a branch of the U.S. Department of Labor, has a variety of apps that technicians can use on the jobsite to help increase work safety as well. For instance, its Heat Safety app allows workers and supervisors to calculate the heat index for their worksite, and based on the heat index, display the risk level to outdoor workers. The site also provides apps that allow supervisors to perform monthly workplace hazard safety inspections and onsite safety audits.

Cut-resistant gloves

The ActivArmr nitrile polyurethane cut-resistant gloves from *Ansell* are made for dry and light oil applications. Each glove is lined with Kevlar and has a hook-and-loop neoprene closure with pull tab for a tight fit. The gloves are also abrasion- and puncture-resistant. Circle 1 on the reader service card.

Temperature controller

The MT512E2HP temperature controller from *Supco* is a digital controller and indicator for heating or cooling with natural defrost through compressor shutdown. The controller is equipped with a time delay and can switch between Fahrenheit and Celsius. Each unit comes with an operating temperature of 32°F to 122°F. Circle 2 on the reader service card.

Duct air leakage tester

The DALT 9000 duct air leakage tester from *Kanomax* is designed for commercial duct systems. The onboard computer tracks all duct air leakage tests in real time, simultaneously measuring airflow, temperature, static pressure, and pressure inside the duct. It can perform both positive pressure and negative pressure tests without having to adjust any hardware on the duct side. Circle 3 on the reader service card.

Corrosion inhibitor

The Force5 HVAC spray from *Force 5 Products* is a corrosion inhibitor that forms a bond to repel water and other contaminants. Adding use of the spray to an annual HVAC checkup will extend the life of the unit. For best results, apply the spray once or twice annually if the heat exchangers are fully exposed to sunlight to compensate for some UV breakdown of the product. Circle 4 on the reader service card.

Smartphone anemometer

The ABM-100 anemometer from *AAB Smart Tools* connects to smart devices and is specifically designed for the HVAC industry. The device converts air speed into air volume and then records the data into a history log which can be emailed on demand. The anemometer also provides the ability to automatically adjust the free space calculation if a grille is present. Circle 5 on the reader service card.

Moisture meter

The 3-in-1 TotalCheck moisture meter from *Delmhorst* measures moisture by pin and scan modes. The removable RH sensor measures ambient temperature and RH, and calculates dew point and GP. The device can store up to 1400 readings with a date and time stamp for future reference. Circle 6 on the reader service card.

Dust extractor

The HAMMERVAC dust extractor from *Milwaukee Tool* is engineered to fit in most confined work spaces and comes with a replaceable certified HEPA filter that filters 99.97% of all particles greater than 0.3 µm (micrometers). The extractor is built with a high-capacity dust box that allows the user to work longer without stopping. Circle 7 on the reader service card.

Carbon monoxide detector

The CO71A carbon monoxide detector from *UEi Test Instruments* monitors, records, and alerts the technician to the presence of dangerous carbon monoxide in ambient air. The visual display constantly indicates precise quantities while the audible and visual alarms respond to various threshold levels. Circle 8 on the reader service card.

Pump pliers

The 10-in. pump pliers from *Klein Tools* come with a secure tongue and groove design for non-slip grip, even with heavy pressure. The pliers adjust between six machined tongue and groove jaw positions and come with a split ring for securing the tool when working at heights. Circle 9 on the reader service card.

Gasket remover tool

The gasket remover tool from *Yellow Jacket* is an angled pick long enough to pull the gasket from deep inside the hose. A notch on the opposite end of the pick is for placing the depressor inside the hose. Pick stores inside case along with five CH20 gaskets (included) for protection and safety. Circle 10 on the reader service card.

Inspection mirror

The M-3 telescopic inspection mirror from *DiversiTech* extends 11 1/4 in. to 15 1/4 in., with a 2 1/8 in. by 3 1/2 in. rectangular mirror. Engineered links are made from tempered spring steel to withstand the stresses of constant repositioning. Moves freely, holds desired position. Circle 11 on the reader service card.

Anti-blowback adapter

The EZ Turn anti-blowback adapter from *Uniweld* is a 90° adaptor with a 1/4 in. male fitting on one end and a 1/4 in. female fitting on the other end to connect to any hose. The fitting has a thrust bearing that reduces friction so the service hose can be connected to the access fitting while under pressure. It is rated for R-410A, CFC, HCFC & HFC refrigerants. Circle 12 on the reader service card.

products

Circuit tester

The *Amprobe* INSP-3 wiring inspector circuit tester verifies whether a building's wiring (including voltage drop under load) complies with electrical code. The large display shows all relevant test data so you can quickly identify issues with splices, connections, and conductor quality that are crucial to safety and performance, without scrolling or switching screens. This wire tester won't trip circuit breakers or blow fuses during the test. **Circle 13 on the reader service card.**

Electrical lockout kit

The electrical lockout kit from *LockoutPro* includes: two steel lockouts (1 in. hasp), four padlocks, four universal circuit breaker lockouts, two 110 V pug lockouts, 10 plastic duro-tags, and one large compact carrying case. Options include individually-keyed or master-keyed locks. **Circle 14 on the reader service card.**

First aid kit

The *Medique* Steel Truck first aid kit is crush-, water- and dust-resistant, with a gasket to ensure dryness. The kit can either be mounted in the vehicle or transported between vehicles. Each kit contains eyewash, antiseptic spray, antiseptic towelettes, ammonia inhalant, 30 plastic strips, gauze, adhesive tape, woven strips, woven fingertips, woven knuckles, non-sterile tri-bandage, 40 disposable latex gloves, first aid handbook, small ice pack and wire. **Circle 15 on the reader service card.**

Protective eyewear

The anti-fog ice wraparound glasses from *Uline* have frameless, anti-scratch lenses that stay clear in hot, humid conditions. Guaranteed non-slip fit with 99.9% UV protection that meets ANSI Standard Z87.1+ as well as OSHA compliant. **Circle 16 on the reader service card.**

Smart thermostat

The iComfort® E30 smart thermostat from *Lennox* monitors air quality and pollen levels in a homeowner's zip code and automatically turns the fan on to clean the home's air when outdoor levels are high. The thermostat's advanced warning system also predicts problems before they occur and alerts the homeowner's service company. **Circle 17 on the reader service card.**

Refrigerant recovery machine

The MR45 refrigerant recovery machine from *Fieldpiece* operates based on load so it runs at lower RPMs when pulling liquid and then switches to higher RPMs when pulling vapor to maximize vapor recovery. The transformer steps up the supply voltage so long extension cords can be used without risk of motor burnout. **Circle 18 on the reader service card.**

Wrist tether

Gear Keeper's TL1-2007 deluxe wrist lanyard has a side release disconnect barrel lock offering a comfortable, 10 in. extended length. The wrist lanyard comes complete with the Barrel Lock nylon lanyard connector. It is available in high-visibility safety orange with serial numbers to satisfy traceability standards. Users can change out and use many tools with just one lanyard by fitting additional male connectors to all tools and merely unclicking one tool and attaching another. **Circle 19 on the reader service card.**

AC cage

The *AC Guard* air conditioner cage is made out of 16-gauge steel and adjusts to fit almost every size A/C unit from residential to commercial. It has a pleasing appearance and can be easily removed for maintenance. Each kit comes with top bar and locks. **Circle 96 on the reader service card.**