

Press Fittings for ACR Applications: A White Paper

Introduction

Press fittings have revolutionized the way we join copper tubing systems, offering a faster, more efficient alternative to traditional soldering or brazing. In this white paper, we delve into the use of press fittings specifically for air conditioning and refrigeration (ACR) applications. We'll explore the benefits, features, and considerations when using press fittings in the HVACR industry.

Why Press Fittings?

Press technology has gained widespread acceptance across various trades, including plumbing, gas, and mechanical systems. Its success led to its adoption in ACR applications, where reliability, ease of installation, and leak resistance are critical. Here's why press fittings are gaining traction:

- **Speed and Efficiency:** Press fittings eliminate the need for open flames, making them faster and safer to install. They are particularly advantageous in tight spaces where torches may not be practical.
- **Reliability:** Unlike soldered or brazed joints, press fittings provide consistent, leak-tight connections.
- **Joint Integrity:** Press fittings use engineered tools and jaws to ensure a consistent, reliable crimp.

NIBCO® PressACR® Copper Press Fittings

NIBCO® PressACR® Copper Press Fittings and Tools are a unique copper press connection system designed to meet the demands of air conditioning and refrigeration applications. Let's explore their key features:

1. **NIBCO** offers a patent pending groove design and crimp pattern that supports the higher pressure requirements of an HVACR system.
2. **Broad Offering:** Available in diameters ranging from 1/4" to 1-3/8" OD, NIBCO features a gray HNBR sealing element providing permanent connections.
3. **Approvals, Standards and Performance:** NIBCO PressACR fittings have undergone extensive and rigorous internal and external testing and meets various worldwide, industry and governmental standards and codes. Compliant with the following: ISO 5149-2, ISO 14903 Helium Leak test, ISO 14903 Thermal Cycle test, ISO 14903 Fatigue test, ISO 14903 Freeze test, ISO 14903 Vacuum test, ASME B31.5, ASHRAE 15, ASTM G85 Salt Spray and UL 109 Vibration. Recognized by UL 207 to 700 PSI.
4. **Packaging and Convenience:** Fittings come in clean, clear bags, making them easy to handle and store.
5. **Tool Compatibility:** Complete line of tools and jaws available including a 19KN wand option and a 32KN pistol option. The 32KN pistol tool can be used on the full-size range to ensure consistent, professional installations.
6. **Warranty:** NIBCO® PressACR® Copper Press Fittings come with a 15-year limited warranty.

Conclusion

Press fittings offer a reliable, efficient solution for HVACR applications. NIBCO PressACR Fittings, with its patent-pending groove design and crimp pattern, raises the standard for excellence. Contractors can be confident in their choice of press technology, knowing it delivers secure, consistent and leak-proof connections saving valuable installation time on the job-site.

For more detailed information, refer to the NIBCO PressACR® catalog or visit www.nibco.com.