



CSI: DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)
Section: 23 20 00—HVAC Piping

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: AIRPERT PERT-AL-PERT System for Refrigeration

Listee: Emmeti Spa
Via Brigata Osoppo 166
33074 F.dda, Italy
www.emmeti.com

Compliance with the following codes:

2024, 2021, 2018, 2015, 2012, 2009 and 2006 *International Mechanical Code®* (IMC)
2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)
2024, 2021, 2018, 2015, 2012, 2009 and 2006 *Uniform Mechanical Code®* (UMC)*
2022, 2019, 2016 and 2013 *California Mechanical Code®* (CMC)*
2020 and 2015 *Minnesota Mechanical and Fuel Gas Code®*
2023, 2020 and 2017 *Florida Mechanical Code®*

**Copyrighted publication of the International Association of Plumbing and Mechanical Officials*

Compliance with the following standards:

ASTM F3346-2019, Specification for Polyethylene of Raised Temperature/Aluminum/Polyethylene of Raised Temperature (PERT/AL/PE-RT) Composite Pressure Pipe

Identification:

Pipe: The Emmeti PERT-AL-PERT Type II pipe used in the AIRPERT System shall be marked every 5 feet (1.5 m) with the following: manufacturer's name, nominal pipe size, material designation (PERT-AL-PERT), temperature and pressure ratings, production code, and the ICC-ES PMG listing mark.

Fittings: The packaging for the fittings shall be marked with the Emmeti name or trademark, AC PRESS brand name, dimensional size and the ICC-ES PMG listing mark. Fittings shall be marked on sleeves with dimension and Emmeti logo.

Installation:

The AIRPERT System which consist of Emmeti PERT-AL-PERT Type II pipe AIRPERT and metal press fittings AC PRESS, must be installed in accordance with the manufacturer's published installation instructions, the applicable codes and this listing.

Mechanical joints shall not be used on annealed temper copper tube in sizes larger than $\frac{7}{8}$ -inch (22.2 mm) OD size per IMC and $\frac{3}{4}$ " of an inch nominal size per UMC.

Installation of refrigerant piping is limited to line-set applications and for single DX Evaporator and Air Handler of 5 Tons or less, residential and light commercial use for direct expansion split systems and shall not be used inside factory built equipment.

Models:

The Emmeti PERT-AL-PERT Type II pipe used in the AIRPERT System is manufactured from polyethylene and aluminum materials satisfying ASTM F3346.

The system is available in a nominally, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, and $\frac{5}{8}$ inch outside diameter (14, 16, 18, and 20 mm) and in coils or in straight lengths and must be used with the metal press fittings supplied as a system.

The AIRPERT System which consists of the Emmeti PERT-AL-PERT Type II pipe and metal press fittings for used in refrigeration applications shall have a temperature range of -40 to 203°F (-40 to 95°C).

- Maximum working pressure of 580 psi (40 bar), maximum short-term overload pressure is 650 psi (45 bar) for the Dimension $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{5}{8}$ inch outside Diameter (12, 14, 16).

Maximum working pressure of 550 psi (38 bar), maximum short-term overload pressure is 650 psi (45 bar) for the Dimension $\frac{5}{8}$ inch outside Diameter (18).

- Maximum working pressure of 464 psi (32 bar), maximum short-term overload pressure is 650 psi (45 bar) for the Dimension $\frac{3}{4}$ and $\frac{7}{8}$ inch outside diameter (20, 25).

Conditions of Listing:

1. The pipe must be used with only the following refrigerants: R22, R32, R134a, R404a, R407c, R410 and R507.
2. Installation of refrigerant piping is limited to line-set applications and for single DX Evaporator and Air Handler of 5 Tons or less, residential and light commercial use for direct expansion split systems and shall not be used inside factory built equipment.
3. Mechanical joints shall not be used on annealed temper copper tube in sizes larger than $\frac{7}{8}$ -inch (22.2 mm) OD size per IMC and $\frac{3}{4}$ " of an inch nominal size per UMC.
4. The pipe and fitting system installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative. Refrigeration system shall include safety device to limit pressure to 650 psi.
5. When installation is in fire-resistance-rated assemblies, evidence must be provided to the code official of compliance with *International Building Code*[®] (IBC) Section 713 (penetrations), *Uniform Building Code* (UBC) Section 709 (walls and partitions) or UBC Section 710 (floor/ceiling or roof/ceiling), as applicable.
6. The pipe must not be used as a source of electrical ground.
7. Pipe bends must be installed in accordance with the manufacturer's published installation instructions.
8. When the system is embedded in concrete, pipe must be covered with a minimum of $\frac{3}{4}$ inches (19.1 mm) of concrete and installation must comply with IBC Section 1906.3 or UBC Section 1906.3, as applicable.
9. The AIRPERT System is manufactured under a quality control program with surveillance inspections by ICC-ES.