



Effective Date: October 2022

This listing is subject to re-examination in one year.

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A Subsidiary of the International Code Council®

CSI: DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)  
Section: 23 11 00—Facility Fuel 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: Jones Stephens PEX-AL-PEX Gas Pipe and Fitting System

Listee: Jones Stephens  
3249 Moody Parkway  
Moody, AL 35004  
[www.jonesstephens.com/pexalgas/](http://www.jonesstephens.com/pexalgas/)

## Compliance with the following codes:

2021, 2018, 2015, 2012 and 2009 *International Fuel Gas Code*® (IFGC)  
2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)  
2021, 2018, 2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*

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## Compliance with the following standards:

ASTM F1281-2017(2021)e1, Standard Specification for Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Pressure Pipe  
ISO 17484/AS 4176.8-2010, Metal-Plastic Multilayer Pipes and Brass Fittings for Conveying Combustible Gases for System in Pressure Up to 5 bar.

## Installation:

All systems must be installed by qualified installers in accordance with the manufacturer's published installation instructions, which are provided with the product. Installation must conform to the requirements of the applicable code and is subject to approval by the code official having jurisdiction.

Authority Having Jurisdiction for the area in which this product is to be installed, shall have the final decision regarding approval for installation in accordance with Sections R104.11 and G2415.17 of the IRC, Sections 105.2 and 404.17 of the IFGC, and Sections 301.3 and 1210.1.7 of the UPC.

## Identification:

**Pipe:** The Jones Stephens PEX-AL-PEX pipe shall be marked every 5 feet (1.5 m) with the following: company name or trademark, material (PEX-AL-PEX), nominal size (for example, 1216), temperature and pressure ratings, ASTM F1281 designation, production code, and the ICC-ES PMG listing mark.

**Fittings:** Fittings shall be marked with manufacturer's name or trademark, and the ICC-ES PMG listing mark.

## Models:

Jones Stephens PEX-AL-PEX gas pipe is manufactured from cross-linked polyethylene (PEX) and aluminum materials satisfying ASTM F1281. Jones Stephens Gas pipe are yellow in color for gas applications.

Crimp fittings and transition adapter fittings (crimp and thread type) of the following sizes can only be used on Jones Stephens PEX-AL-PEX gas pipe; fittings cannot be used with pipe from other manufacturer.

CODE	DESCRIPTION
PGP16328	16MM X 100M PIPE COIL
PGP20328	20MM X 100M PIPE COIL
PGP26164	26MM X 50M PIPE COIL
PGP32164	32MM X 50M PIPE COIL
PMPT16	16 X 2 X 1/2 MPT ADAPTER
PMPT20	20 X 2 X 1/2 IN ADAPTER MPT
PMPT26	26 X 3/4 IN ADAPTER MPT
PMPT32	32 X 1 IN ADAPTER MPT
PFPT16	16 X 2 X 1/2 IN ADAPTER FPT
PFPT20	20 X 2 X 1/2 IN ADAPTER FPT
PFPT26	26 X 3/4 IN ADAPTER FPT
PFPT32	32 X 1 IN ADAPTER FPT
PC16	16 X 16 COUPLING
PC20	20 X 20 COUPLING
PC26	26 X 26 COUPLING
PC32	32 X 32 COUPLING
PT16	16 X 16 X 16 TEE
PT20	20 X 20 X 20 TEE
PT26	26 X 26 X 26 TEE
PT32	32 X 32 X 32 TEE
PT162016	16 X 20 X 16 REDUCING TEE
PT201616	20 X 16 X 16 REDUCING TEE
PT201620	20 X 16 X 20 REDUCING TEE
PT202016	20 X 20 X 16 REDUCING TEE
PT202620	20 X 26 X 20 REDUCING TEE
PT261626	26 X 16 X 26 REDUCING TEE
PT262026	26 X 20 X 26 REDUCING TEE
PT321632	32 X 16 X 32 REDUCING TEE
PT262020	26 X 20 X 20 REDUCING TEE
PT262620	26 X 26 X 20 REDUCING TEE
PT322626	32 X 26 X 26 REDUCING TEE
PT322032	32 X 20 X 32 REDUCING TEE
PT322632	32 X 26 X 32 REDUCING TEE
PE916	16 X 16 90 DEG ELBOW
PE920	20 X 20 90 DEG ELBOW
PE926	26 X 26 90 DEG ELBOW
PE932	32 X 32 90 DEG ELBOW
PDE916D	16 X 1/2 IN FPT WB ELBOW
PDE920D	20 X 1/2 IN FPT WB ELBOW
PDE920F	20 X 3/4 IN FPT WB ELBOW

PDE926F	26 X 3/4 IN FPT WB ELBOW
PFPT916D	16 X 1/2 IN FPT ELBOW
PFPT920D	20 X 1/2 IN FPT ELBOW
PFPT920F	20 X 3/4 IN FPT ELBOW
PFPT926G	26 X 1 IN FPT ELBOW
PFPT926F	26 X 3/4 IN FPT ELBOW
PFPT932G	32 X 1 IN FPT ELBOW
PFWM16D	16 X 1/2 IN WALL/FLOOR MOUNT
PFWM20D	20 X 1/2 IN WALL/FLOOR MOUNT
PFWM20F	20 X 3/4 IN WALL/FLOOR MOUNT
PFWM26F	26 X 3/4 IN WALL/FLOOR MOUNT
PFWM26G	26 X 1 IN WALL/FLOOR MOUNT
PFWM32G	32 X 1 IN WALL/FLOOR MOUNT

The PMG listings issued by ICC Evaluation Service, Inc. (ICC-ES), are based upon performance features of the IFGC®, IRC®, and UPC®. ICC-ES may consider alternate standards, provided the listing applicant submits valid data demonstrating that the alternate standards are at least equivalent to the standards set forth in the codes. Products were tested and found to be in compliance with the following requirements.

	Performance Testing Completed	Standard
Adhesion Test	No delamination of the PEX and AL, either on the bore side or the outside was found when tested to Section 9.3.1 of ASTM F1281.	ASTM F1281
Tensile Strength	The pipe rings met the minimum strength specifications defined in Table 4 of ASTM F1281 as follows: 16 DN (1/4") 2100 N (470 lb) 6000 kPa (880 psi) 20 DN (5/8") 2400 N (538 lb) 5000 kPa (730 psi) 26 DN (7/8") 2400 N (538 lb) 4000 kPa (580 psi) 32 DN (1") 2650 N (598 lb) 4000 kPa (580 psi)	ASTM F1281
Burst Pressure	Assemblies (pipe and fittings) met the minimum hydrostatic burst requirements in Table A2.1 of ASTM F1281 at test temperature of 180°F (82.2°C) as follows: 16 DN (1/4") 4000 kPa (580 psi) 20 DN (5/8") 3800 kPa (550 psi) 26 DN (7/8") 3200 kPa (465 psi) 32 DN (1") 3200 kPa (465 psi)	ASTM F1281
Sustained Pressure	The pipe and fittings did not fail, balloon, burst, weep, leak or separation at any joint when tested at a pressure of 320 psi (2205 kPa) and a temperature of 180 ± 4°F (82.2 ± 2°C) for not less than a 1000 hrs.	ASTM F1281
Thermocycling	The assemblies (pipe and fittings) did not leak or separate for 1000 cycles when thermocycled between the temperatures of 60°F (15.6°C) and 180°F (82.2°C) and maintained an internal pressure of 100 ± 10 psi (690 ± 69 kPa).	ASTM F1281
Excessive Temperature-Pressure Capability	The pipe and fittings did not fail, balloon, burst, weep, leak or separation at any joint when tested at a pressure of 150 psi (1034 kPa) and a temperature of 210 ± 4°F (99 ± 2°C) for not less than a 720 hrs.	ASTM F1281
Gas Compatibility	The pipe was found not to leak or delaminate within the layer after it was filled and capped with a synthetic condensate consisting of a mixture of a mass fraction of 50 % n-decane (99 %) and a mass fraction of 50 % 1,3,5-trimethylbenzene and allowed to stand in air for 1500 hrs. at 73.4°F (23.2°C) holding a pressure of 0.4 Bar (5.8 psi)	ISO 17484/AS 4176.8
Tensile Load on Joint	The joint was found not to leak when tested for resistance to pull-out under constant longitudinal force of 1800 N (404 lbf) for 1 hr at a test pressure of 30 mbar (0.5 psi) at test temperature of 73.4°F (23.2°C)	ISO 17484/AS 4176.8
Joint Resistance to Crushing	The joint was found not to leak when crushed to a force of 2000 N (450 lbf) for 3 min at a test pressure of 100 kPa (14.5 psi) at test temperature of 73.4°F (23.2°C)	ISO 17484/AS 4176.8
Impact Resistance	The joint was found not to leak when the fitting was struck with a	ISO 17484/AS 4176.8

of the Joint	5 kg spherical head (radius of 10 mm) from a height of 600 mm (2 ft). Joint held a test pressure of 100 kPa (14.5 psi) before and after impact.	
Repeated Bending Resistance	The assemblies (pipe and fittings) did not leak or have any delamination or disbonding, such as blisters, pitting and notches after repeated bending under the following conditions: Bending Angle: 90 degrees Bending Radius 80 mm Bending Cycles: 3 Test Pressure: 30 mbar (0.5 psi)	ISO 17484/AS 4176.8

#### Conditions of Listing:

1. During placement of cover over the pipe, the pipe must be maintained at the greater of 1½ times the proposed maximum working pressure, but not less 3 psig (20 kPa gauge), irrespective of design pressure.
2. The Jones Stephens PEX-AL-PEX pipe and fittings recognized in this listing shall be installed as a system and fittings shall be not used on pipes from other manufacturer.
3. The Authority Having Jurisdiction for the area in which this product is to be installed, shall have the final decision regarding approval for installation in accordance with Sections R104.11 and G2415.17 of the IRC, Sections 105.2 and 404.17 of the IFGC, and Sections 301.3 and 1210.1.7 of the UPC.
4. The pipe installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative.
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).
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, piping must be covered a minimum of ¾ inch (19.1 mm) and installation must comply with IBC Section 1906.3.
9. Pipe and Fittings recognized in this listing are under a quality control program with surveillance inspections two times per year by ICC-ES.