

ICC-ES Evaluation Report

ESR-4429

Issued August 2019

This report is subject to renewal August 2020

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A Subsidiary of the International Code Council®

DIVISION: 22 00 00—PLUMBING

Section: 22 05 29—Hangers and Supports for Plumbing Pipe and Equipment

REPORT HOLDER:

JMB INDUSTRIES, LLC dba PIPE PROP®

EVALUATION SUBJECT:

PIPE PROP® ADJUSTABLE PIPE SUPPORTS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2018, 2015, and 2012 *International Building Code*® (IBC)
- 2018, 2015, and 2012 *International Plumbing Code*® (IPC)

For evaluation for compliance with codes adopted by the Los Angeles Department of Building and Safety (LADBS), see [ESR-4429 LABC Supplement](#).

Properties evaluated:

- Structural
- Durability

2.0 USES

Pipe Prop® Adjustable Pipe Supports (Pipe Prop®) are adjustable pipe supports intended to elevate and secure industrial conduit piping on flat rooftop surfaces, in compliance with Section 308 of the IPC, and in accordance with in Section 2901 of in the IBC.

The pipe supports are an alternative to plumbing system described in Section 316 of the IPC, and in accordance with Section 2901 of the IBC.

3.0 DESCRIPTION

3.1 General: The Pipe Prop® models APS-1, APS-2, and USPP comprised of the following components is shown in Figure 2:

- Base
- Saddle
- Strap for securing the pipe
- PVC Shaft (supplied by others)
- PVC solvent cement (supplied by others)

3.2 APS-1: The APS-1 include a 1½-inch (38 mm) saddle and nylon strap for use to support 1½-inch (38 mm)

diameter or smaller pipes. The shaft shall be ¾" (19 mm) Schedule 40 sunlight resistance PVC pipe in accordance with ASTM D1785 (supplied by others) and required to be cut in the field to adjust the Pipe Prop® to the desire height with a maximum total 15 inches (40.64 cm) system height. The saddle, shaft and base are assembled with field applied PVC solvent cement in accordance with ASTM D2564 (supplied by others). The profile of the Pipe Prop® is shown in Figure 1.

3.3 APS-2: The APS-2 includes a 2½-inch (63.5 mm) saddle and nylon strap for use to support 2½-inch (63.5 mm) diameter or smaller pipes. The shaft shall be ¾" Schedule 40 sunlight resistance PVC pipe in accordance with ASTM D-1785 (supplied by others) and required to be cut in the field to adjust the Pipe Prop® to the desire height with a maximum total 15 inches (40.64 cm) system height. The saddle, shaft and base are assembled with field applied PVC solvent cement in accordance with ASTM D2564 (supplied by others). The profile of the Pipe Prop® is shown in Figure 1.

3.4 USPP: The USPP includes a 6-inch (15.24 cm) long Unistrut compatible with Unistrut fixtures, Unistrut saddle and two self-locking straps which provide additional flexibility for use to support 1½-inch (38 mm) diameter or smaller pipes. The shaft shall be ¾" Schedule 40 sunlight resistance PVC pipe per ASTM D-1785 (supplied by others) and required to be cut in the field to adjust the Pipe Prop® to the desire height with a maximum total 15 inches (40.64 cm) system height. The saddle, shaft and base are assembled with field applied PVC solvent cement in accordance with ASTM D2564 (supplied by others). The profile of the Pipe Prop® is shown in Figure 1.

4.0 DESIGN AND INSTALLATION

4.1 Design: The Pipe Prop® products are limited to a maximum allowable axial load of 20 lbs (89N). The Pipe Prop® products are also limited to a maximum allowable axial, transverse (horizontal) and uplift loads of 20 lbs (89N) provided that the base is attached to the top surface of the roof assembly.

Exemption: The Pipe Prop® products are exempt from the seismic requirements in accordance with ASCE 7, Chapter 13 for component weights 20 lbs (89N) or less in Seismic Design Categories A through F.

4.2 Installation Requirements: Installation of the Pipe Prop® Adjustable Pipe Supports must comply with this report and the manufacturer's published installation instructions as illustrated in Figure 3. The manufacturer's

published installation instructions must always be available at the jobsite during installation.

4.3 Special Inspection: Periodic special inspections are required in accordance with Section 1705.1.1 of the 2018, 2015 and 2012 IBC, as applicable, for APS-1, APS-2 and USSP. The special inspector must make periodic inspections during installation to verify items supplied by others; PVC shaft size and PVC solvent cement, and type in accordance with Sections 3.2, 3.3 or 3.4 of this report. Special inspection may be omitted if PVC shaft and PVC solvent cement are supplied by Pipe Prop®.

5.0 CONDITIONS OF USE

The Pipe Prop® Adjustable Pipe Supports described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 The conduit supported by the Pipe Prop® product shall be restrained and interconnected with rooftop equipment.
- 5.3 The support conduit piping for each Pipe Prop® product shall not exceed the allowable loads described in Section 4.1 of this report.
- 5.4 Pipe Prop® products are limited to installations on flat rooftop assembly.
- 5.5 The Pipe Prop® base attachment to the top surface of the roof assembly is beyond the scope of this report.
- 5.6 Rooftop assembly surface shall be free of debris and loose rocks for adhesive application. Additionally, the condition of the existing roof covering and its ability to support loads from the Pipe Prop® shall be established to the satisfaction of the code official.
- 5.7 The conduit supported by the Pipe Prop® product shall be approved by the code official.
- 5.8 Periodic inspection shall be required in accordance with Section 4.3 for APS-1, APS-2 and USPP where shafts are supply by others.

- 5.9 Evaluation of the PVC Shafts and PVC solvent cement is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

- 6.1 Reports of load tests in accordance with ASTM D638, FM 1950, TAS 107, and TAS 114 App D.
- 6.2 Report of ignition temperature of plastic test in accordance with ASTM D1929.
- 6.3 Report of Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position in accordance with ASTM D635.
- 6.4 Report of Tensile Properties of Plastics in accordance with ASTM D638.
- 6.5 Report of Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials in accordance with ASTM G154.

7.0 IDENTIFICATION

- 7.1 The models listed on this report must be marked with the manufacturer's name or trademark, model number or name, and the evaluation report number (ESR-4429).
- 7.2 The installation instructions must include the list of parts provided by the manufacturer, the list of parts and materials not supplied by the manufacturer but necessary to complete installation, the load bearing capability and the manufacturer's recommended operating temperature range of assembled pipe support systems
- 7.3 The report holder's contact information is the following:

JMB INDUSTRIES, LLC dba PIPE PROP®
6340 BAKER BLVD.
FORT WORTH, TX 76118
(888) 590-0120
www.pipeprop.com
info@pipeprop.com



FIGURE 1—APS-1 (LEFT), APS-2 (MIDDLE) AND USPP (RIGHT) MODELS



FIGURE 2—PIPE PROP COMPONENTS

ENGLISH

4 Steps & You're Done:
 All you need is 3/4" Schedule 40 PVC Electrical Conduit, PVC Glue, PVC Pipe Cutter (ratchet-style recommended) and the Pipe Prop Unit.

1 Measure and cut 3/4" Schedule 40 PVC Electrical Conduit the length you need.

2 Use PVC glue to attach the pipe to the saddle and base.

3 Position Pipe Prop on the roof. Attach to the roof according to the roofing manufacturer's recommendation.

4 Lay the pipe in the saddle and secure with provided nylon cable tie.

FIGURE 3—INSTALLATION INSTRUCTION

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REPORT HOLDER:

JMB INDUSTRIES, LLC dba PIPE PROP®

EVALUATION SUBJECT:

PIPE PROP® ADJUSTABLE PIPE SUPPORTS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Pipe Prop® Adjustable Pipe Supports, described in ICC-ES master evaluation report [ESR-4429](#), has also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

Applicable code editions:

- 2017 *City of Los Angeles Building Code* (LABC)

2.0 CONCLUSIONS

The Pipe Prop® Adjustable Pipe Supports, described in Sections 2.0 through 7.0 of the master evaluation report [ESR-4429](#), complies with LABC Chapter 29, and is subject to the conditions of use described in this supplement.

3.0 CONDITIONS OF USE

The Pipe Prop® Adjustable Pipe Supports, described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the master evaluation report [ESR-4429](#).
- The design, installation, conditions of use and labeling of the Pipe Prop® Adjustable Pipe Supports are in accordance with the 2015 *International Building Code*® (2015 IBC) provisions noted in the master evaluation report [ESR-4429](#).
- The inspection is in accordance with additional requirements of LABC Chapter 17, as specified in Section 4.3 of the master evaluation report ESR-4429.

This supplement expires concurrently with the master report, issued August 2019.

ICC-ES Evaluation Report

ESR-4429 CBC Supplement

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EVALUATION SUBJECT:

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that the Pipe Prop® Adjustable Pipe Supports, described in ICC-ES master evaluation report ESR-4429, have also been evaluated for the codes noted below.

Applicable code edition:

- 2016 California Building Code (CBC)

For evaluation of applicable chapters adopted by the California Office of Statewide Health Planning and Development (OSHPD) and Division of the State Architect (DSA), see Sections 2.1 and 2.2 below.

2.0 CONCLUSIONS

The Pipe Prop® Adjustable Pipe Supports, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4429, comply with CBC Chapter 29, provided the design and installation are in accordance with the 2015 *International Building Code*® (IBC) provisions noted in the master report, and the inspection requirements of the CBC Chapter 17.

2.1 OSHPD:

OSHPD applicable Sections in the CBC are beyond the scope of this supplement.

2.2 DSA:

DSA applicable Sections in the CBC are beyond the scope of this supplement.

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ICC-ES Evaluation Report

ESR-4429 FBC Supplement

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1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Pipe Prop® Adjustable Pipe Supports, recognized in ICC-ES master evaluation report ESR-4429, have also been evaluated for compliance with the codes noted below.

Compliance with the following codes:

- 2017 *Florida Building Code—Building*
- 2017 *Florida Building Code—Plumbing*

2.0 CONCLUSIONS

The Pipe Prop® Adjustable Pipe Supports, described in Sections 2.0 through 7.0 of the master evaluation report ESR-4429, comply with the *Florida Building Code—Building* and the *Florida Building Code—Plumbing*, provided the design and installation are in accordance with the 2015 *International Building Code*® and the 2015 *International Plumbing Code* provisions noted in the master report.

Use of the Pipe Prop® Adjustable Pipe Supports have also been found to be in compliance with the High-Velocity Hurricane Zone provisions of the *Florida Building Code—Building*.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the master report, issued August 2019.