

Reliable®

Model AR04 CPVC Pipe Support Bracket

cULus Listed

Product Description

The Reliable model AR04 CPVC pipe support bracket is designed to support non-metallic CPVC pipe horizontally from the top or bottom of a beam or other structural member that can accommodate a threaded mounting point such a bolt, stud, or length of threaded rod. This product may also be used as a guide or thrust restraint (not a support) for CPVC pipe that is vertically oriented or in another non-horizontal orientation. The model AR04 CPVC pipe support bracket includes flared edges and specially designed welded joints to prevent damage to CPVC pipe if slid through a pre-installed hanger. The model AR04 CPVC pipe support bracket also features polymer spacers that prevent over-tightening during installation that can crush CPVC pipe and damage it; these spacers also allow thermal expansion of CPVC pipe from normal temperature changes to occur without damaging the CPVC pipe, as required in the CPVC pipe manufacturer's installation instructions. The Model AR04 CPVC pipe support bracket is designed so that it can be opened to accept CPVC pipe without the need to fully remove a bolt, preventing loss of fasteners during installation of CPVC pipe or maintenance of the fire protection system.. The model AR04 CPVC pipe support bracket also features a single primary closure fastener used to tighten the product around CPVC pipe, providing improved ease of installation to reduce complexity for installers. The model AR04 CPVC pipe support bracket is available in NPS / DN sizes from 1/2" (15mm) to 4" (100mm).

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve out of service will eliminate the fire protection that is provided by the fire protection system.

The Reliable CPVC pipe support bracket and associated equipment shall periodically be given a thorough inspection. NFPA 25, "Inspection, Testing and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements.

Repair or replace any hangers found to be loose, disconnected, or damaged.

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.



Model AR04 Pipe Clamp Type CPVC Hanger

Ordering Information

Specify the following when ordering:

Model

- AR04

Nominal Size

- 1/2" (15 mm)
- 3/4" (20 mm)
- 1" (25 mm)
- 1-1/4" (32 mm)
- 1-1/2" (40 mm)
- 2" (50 mm)
- 2-1/2" (65 mm)
- 76 mm
- 3" (80 mm)
- 4" (100 mm)

Model AR04 CPVC Pipe Support Bracket

Technical Specifications

Material:

Clamp/Hanger Housings: ASTM A1008 CS Type C (equivalent to AISI 1008) carbon steel

Hinge Pin: ASTM A36 carbon steel

Top Nut: ASTM A29 Gr 1008 (equivalent to AISI 1008) carbon steel

Fastener Nut/Bolt: ASTM A36 carbon steel

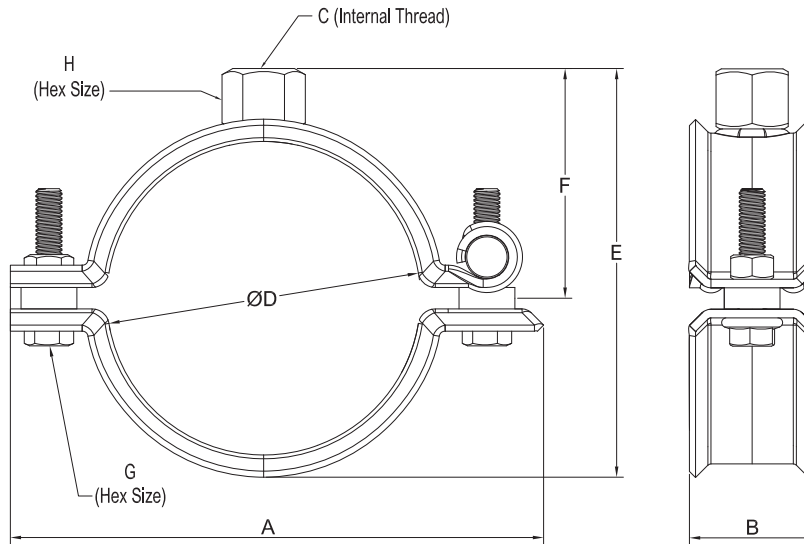
Spacer Washer: Virgin Polyethylene

Surface Treatment: Hot Dip galvanizing per ASTM A123



Model AR04 CPVC Pipe Support Bracket Specification and Dimensions

Figure 1



Dimensions in. (mm)

Table A

| Pipe Size NPS (DN) | A in (mm) | B in (mm) | C in (mm) | D in (mm) | E in (mm) | F in (mm) | G Screw Head | G Hex | H Hex | Max. Load lbs (N) |
|-----------------------|-----------------|----------------|-------------------------|-----------------|-----------------|-------------------|--------------------|----------|----------|-------------------------|
| 1/2" (15) | 2-3/4 (70) | 1-3/16 (30) | 3/8" x 16 (10 x 1.5) | 0.847 (21.5) | 1-5/8 (42) | 1-1/16 (27) | #2 Phillips | 10 mm | 17 mm | 250 (1110) |
| 3/4" (20) | 3 (76) | | | 1.063 (27) | 1-7/8 (47) | 1-1/8 (29) | | | | 250 (1110) |
| 1" (25) | 3-1/4 (83) | | | 1.319 (33.5) | 2-3/16 (55) | 1-5/16 (33) | | | | 250 (1110) |
| 1-1/4" (32) | 3-5/8 (92) | | | 1.665 (42.3) | 2-1/2 (63) | 1-1/2 (37.5) | | | | 250 (1110) |
| 1-1/2" (40) | 3-3/4 (95) | | | 1.910 (48.5) | 2-13/16 (71) | 1-5/8 (41) | | | | 320 (1420) |
| 2" (50) | 4-5/16 (110) | | | 2.382 (60.5) | 3-1/4 (83) | 1-7/8 (47) | | | | 320 (1420) |
| 2-1/2" (65) | 4-7/8 (124) | | | 2.894 (73.5) | 3-3/4 (95) | 2-1/8 (53.5) | | | | 320 (1420) |
| 76 mm | 5 (127) | | | 3.032 (77) | 3-7/8 (98) | 2-3/16 (55) | | | | 320 (1420) |
| 3" (80) | 5-1/2 (140) | | | 3.504 (89) | 4-3/8 (111) | 2-7/16 (61.5) | | | | 380 (1690) |
| 4" (100) | 6-9/16 (167) | | | 4.528 (115) | 5-7/16 (138) | 2-15/16 (74.5) | | | | 440 (1950) |

Installation

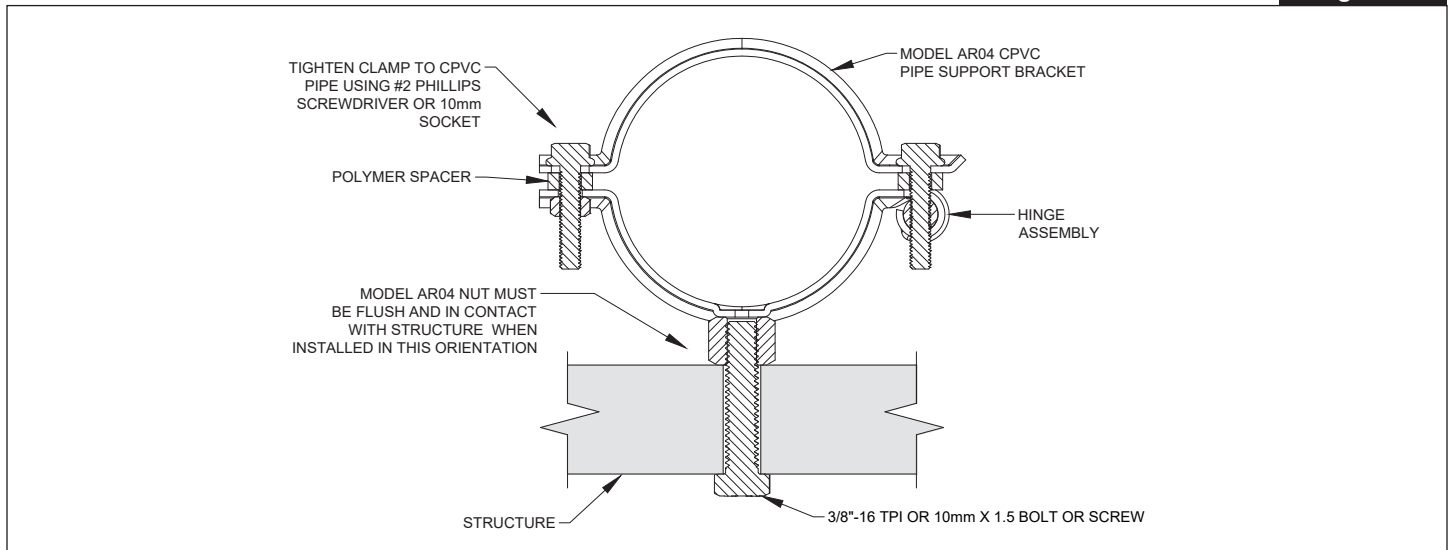
1. The AR04 CPVC pipe support bracket is listed as a pipe support ONLY when installed in accordance with Figures 2, 3, and 4 on horizontally oriented CPVC non-metallic pipe for fire protection systems. The product should be installed and secured on its threaded mount prior to installing the pipe in the hanger. When installed on CPVC pipe that is vertically-oriented or in another non-horizontal orientation, the model AR04 CPVC pipe support bracket acts as ONLY as a guide or thrust restraint, NOT as a pipe support.”
2. The AR04 CPVC pipe support bracket may be installed on the top surface of the structure ONLY when the hex nut on the hanger directly contacts the top surface of the structure with a fastener securing the hanger as shown in Figure 2. Compliance with UL 203 requires the hex nut on the hanger to be in direct contact with the top surface of the structure. No other top-surface installation configuration is acceptable.
3. The AR04 CPVC pipe support bracket may be installed suspended from the bottom surface of the structure through use of threaded rod or other fastener product as shown in Figure 3 and Figure 4.
4. The fastener used with the AR04 CPVC pipe support bracket's top nut may be fully tightened before or after installing the CPVC pipe in the hanger, depending on the discretion of the installer and the type of installation being performed (top-surface or bottom-surface). The top nut on the top of the product used for anchoring the product does NOT rotate with respect to the rest of the body of the product, and so must be aligned to its final orientation before the insertion of CPVC pipe.
5. Slide pipe into the AR04 CPVC pipe support bracket, taking care to use appropriate number of hanger products and spacing that meets NFPA requirements, local regulation, and industry best practices.
6. Use a #2 Phillips head screwdriver bit or a 10mm hex head socket / nut driver to tighten the bolt opposite the hinge pin on the AR04 CPVC pipe support bracket until tight. Do NOT exceed 40 In-lb (4.5 N-m). Ensure that both the top and bottom halves of the polyethylene spacer washer are in contact with the top and bottom surfaces of the clamp / hanger housings. WARNING: Use of a powered hex driver that applies more than 40 in-lb (4.5 N-m) of torque may damage the AR04 clamp and/or the CPVC fire protection piping.
7. After tightening the bolt opposite the hinge, the bolt on the hinge side of the model AR04 CPVC pipe support bracket should be checked for tightness. If loose, this bolt should also be tightened to the same criteria as the first bolt.
8. Inspect each AR04 hanger after installation to ensure complete and correct install prior to filling and pressurizing the fire protection system.

WARNINGS

1. The Reliable Model AR04 CPVC pipe support bracket and associated equipment must be installed in accordance with NFPA 13, “Standard for Installation of Sprinkler Systems”, the requirements of the CPVC pipe manufacturer, and any local standards.
2. The AR04 CPVC pipe support bracket shall only be used to install cULus Listed CPVC pipe.
3. Ensure that the compatibility of the AR04 CPVC pipe support bracket, pipe, and fire protection system components with the surrounding environment prior to installation.
4. Only attach the AR04 CPVC pipe support bracket to structural components that are adequate in all respects, including integrity, placement, and fitness-for-purpose, to support the AR04 CPVC hanger and the fire protection system.
5. Do NOT use impact tools to install the AR04 CPVC pipe support bracket. Use of impact tools may damage the AR04 CPVC pipe support bracket, pipe, and/or structure to which the AR04 CPVC pipe support bracket is attached.
6. The screws used to install the AR04 CPVC pipe support bracket must be tightened adequately to hold the pipe strap firmly to the structure. Do NOT over-tighten the screws to avoid damaging the screws, AR04 CPVC pipe support bracket, or structure to which the AR04 CPVC pipe support bracket is attached.
7. Failure to follow these warnings and installation instructions will void all warranties and may result in product malfunction, up to and including failure of the fire protection system.

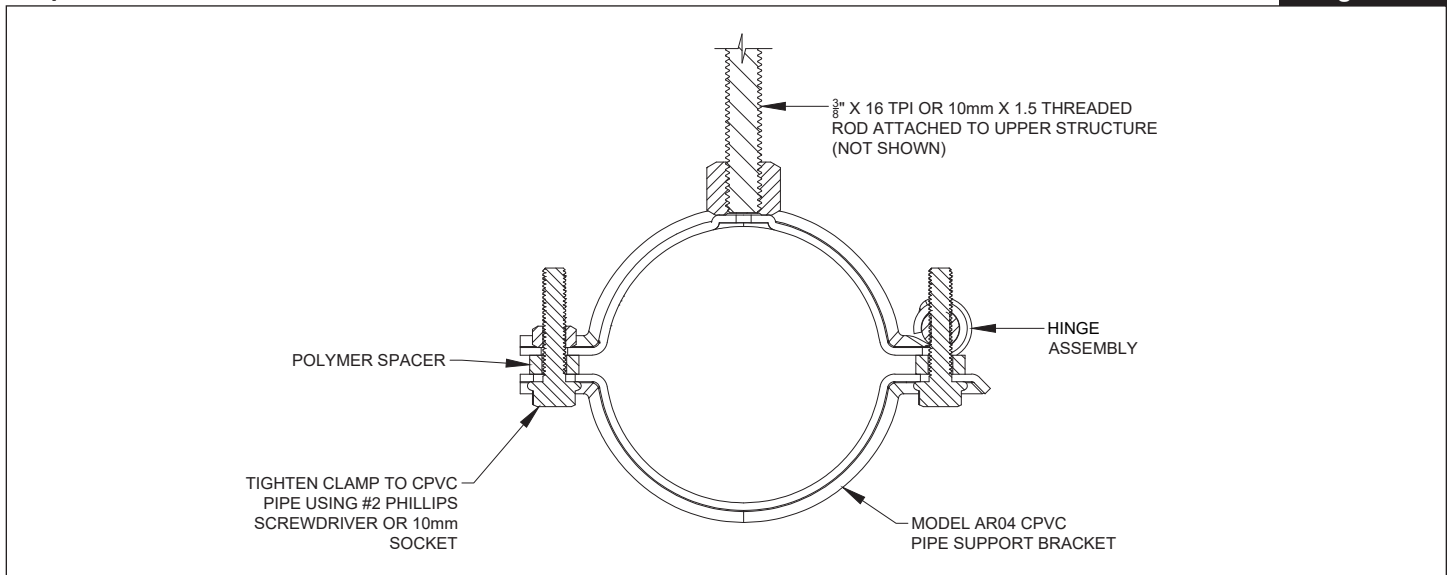
Direct Attachment to Top of Structure

Figure 2



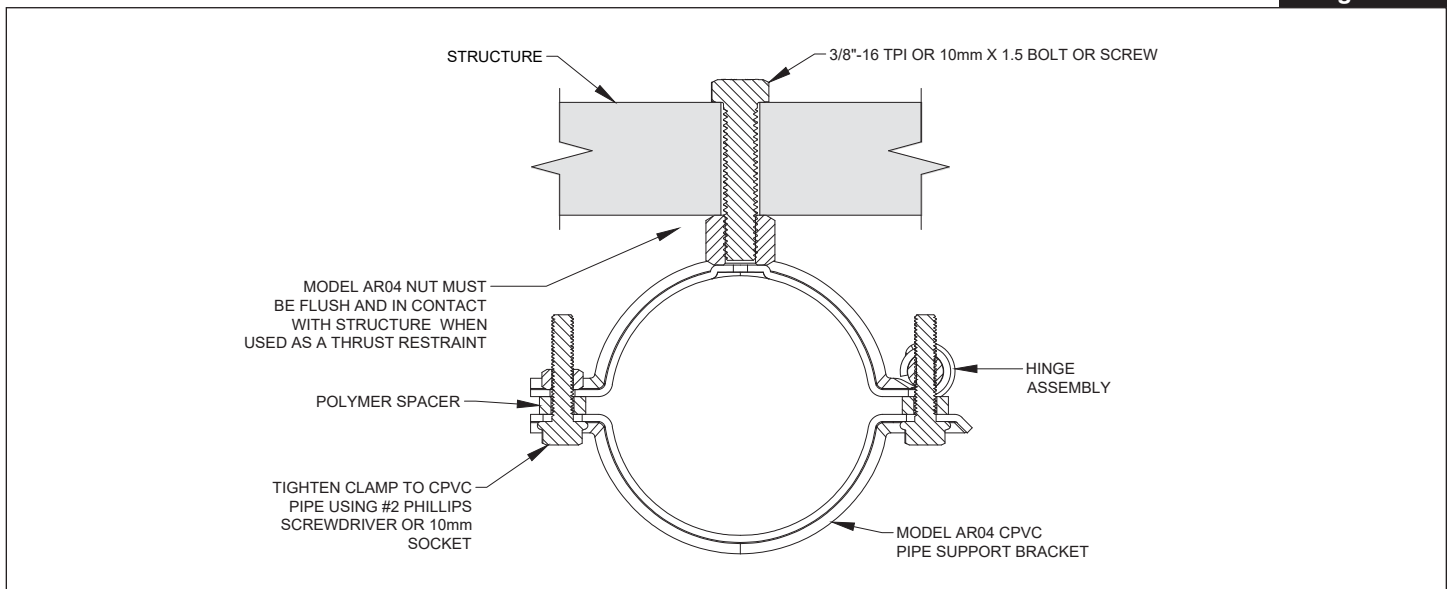
Suspended Attachment Below Structure

Figure 3



Direct Attachment Below Structure

Figure 4



P/N 9999970722