

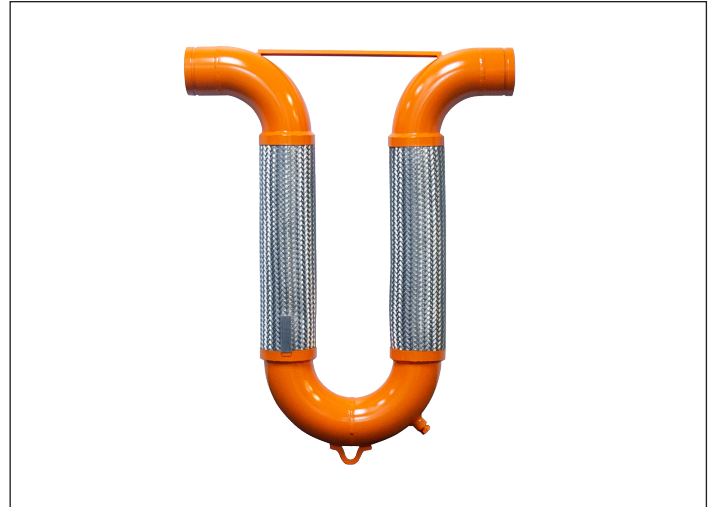


Model RLP RASCOLOOP U-Type Seismic Expansion Joint with Grooved Outlets

cULus Listed, FM Approved

Product Description

Reliable Model RLP RASCOLOOP seismic expansion joints are for use in fire protection systems. These joints allow connected lines to move and flex during a seismic event, preventing or reducing damage that may normally compromise integrity and performance of fire protection system. The Model RLP RASCOLOOPS are smaller and require fewer couplings and less installation labor than a traditional composite flexible joint assembled from multiple fittings, pipe sections, and couplings. Model RLP RASCOLOOPS use AWWA C606 grooved connections for easy installation into a fire protection system, and are available in nominal sizes of 1" (25 mm), 1-1/4" (32 mm), 1-1/2" (40 mm), 2" (50 mm), 2-1/2" (65 mm), 3" (80 mm), 4" (100 mm), 6" (150 mm), 8" (200 mm), and 10" (250 mm). Each RASCOLOOP is manufactured from a stainless-steel flexible hose and braiding connected to carbon steel elbows and outlet connections. Couplings are not included.



Model RLP RASCOLOOP U-Type Seismic Expansion Joint with Grooved Outlets

Ordering Information

Specify the following when ordering:

Model

- RLP RASCOLOOP Seismic Expansion Joint

Nominal Size

- 1" (25 mm)
- 1-1/4" (32 mm)
- 1-1/2" (40 mm)
- 2" (50 mm)
- 2-1/2" (65 mm)
- 3" (80 mm)
- 4" (100 mm)
- 6" (150 mm)
- 8" (200 mm)
- 10" (250 mm)

Movement Range

- ±4
- ±8
- ±16

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.

Guarantee

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

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Technical Specifications

Pressure Rating:

300 psi (20.7 bar) for sizes 1" to 3"
175 psi (12.1 bar) for sizes 4" to 10"

Material Specifications

Flexible Hose: ASTM A240 GR S30400 (equivalent to 304 Stainless Steel)

Hose Braid: ASTM A240 GR S30400 (equivalent to 304 Stainless Steel)

90° Elbow: ASTM A234 Gr WPB Carbon Steel

180° Return: ASTM A234 Gr WPB Carbon Steel

Grooved Outlet: ASTM A53 Gr A or ASTM A106 Gr A Carbon Steel

NPT Plug: ASTM A105

Connections

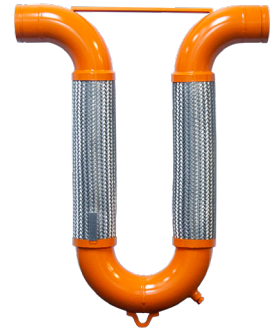
AWWA C606 Grooved Profile (Outlets)
ASME B1.20.1 FNPT (Test/Drain Port)

Coatings

Orange paint (90° Elbow, 180° Return, and Grooved Outlets only)

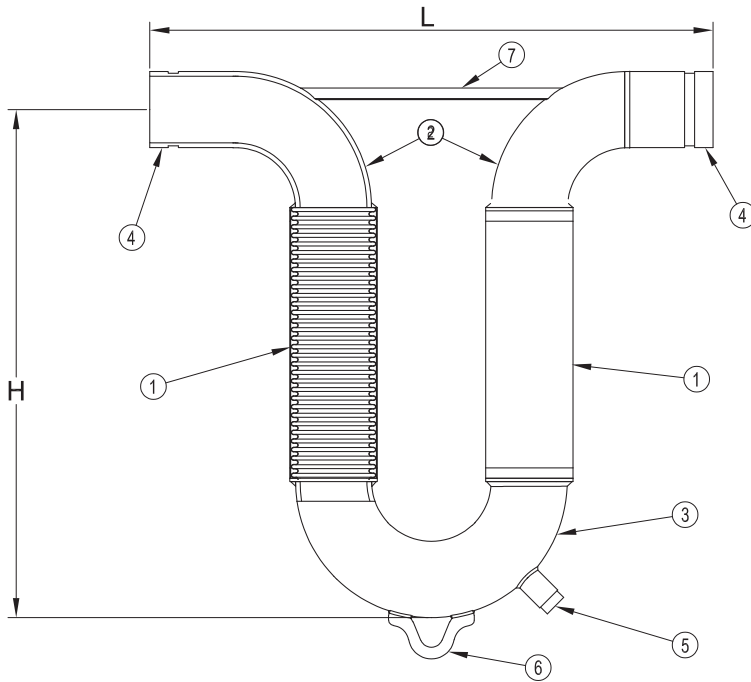
Listings and Approvals

cULus Listed
FM Approved



Model RLP RASCOLOOP Specification and Dimensions

Figure 1



Item Number	Item Description
1	Hose and Braid
2	90° Elbow
3	180° Return
4	Grooved Outlets
5	Drain / Test Port
6	Hanger Support Loop
7	Shipping Bar

Dimensions and Weights

Table A

Nominal Size	Pipe O.D. in (mm)	Pressure Rating psi (bar)	Movement in (mm)	L in (mm)	H in (mm)	Plug Size NPT	Weight lb (kg)
1 (25)	1.315 (33.7)	300 (20.7)	±4 (101.6)	15-1/2 (392)	20-1/4 (514)	3/8	8.8 (4)
			±8 (203.2)	18-1/4 (462)	23-3/4 (604)		8.8 (4)
			±16 (406.4)	27-5/8 (702)	29-1/4 (743)		11 (5)
1-1/4 (32)	1.660 (42.2)	300 (20.7)	±4 (101.6)	16-5/8 (421)	21-5/8 (551)		11 (5)
			±8 (203.2)	19-3/4 (501)	25-5/8 (652)		11 (5)
			±16 (406.4)	28-3/8 (721)	32-1/8 (815)		13.2 (6)
1-1/2 (40)	1.900 (48.3)	300 (20.7)	±4 (101.6)	19-5/8 (499)	23-1/2 (598)		13.2 (6)
			±8 (203.2)	22-3/4 (579)	27-3/8 (697)		15.4 (7)
			±16 (406.4)	31 (789)	34-1/8 (868)		17.6 (8)
2 (50)	2.375 (60.3)	300 (20.7)	±4 (101.6)	21-7/8 (555)	25-1/4 (641)		17.6 (8)
			±8 (203.2)	25 (635)	30-1/4 (767)		19.8 (9)
			±16 (406.4)	31-5/8 (805)	39-1/8 (993)		22 (10)
2-1/2 (65)	2.875 (73.0)	300 (20.7)	±4 (101.6)	23-1/2 (596)	28-5/8 (726)	26.4 (12)	
			±8 (203.2)	26-7/8 (681)	34-5/8 (681)	28.6 (13)	
			±16 (406.4)	33-7/8 (861)	45 (1144)	35.2 (16)	

Dimensions and Weights (continued)

Table A

Nominal Size	Pipe O.D. in (mm)	Pressure Rating psi (bar)	Movement in (mm)	L in (mm)	H in (mm)	Plug Size NPT	Weight lb (kg)	
3 (80)	3.500 (88.9)	300 (20.7)	±4 (101.6)	23-7/8 (607)	31 (789)	1/2	37.4 (17)	
			±8 (203.2)	27-7/8 (707)	37-3/4 (959)		44 (20)	
			±16 (406.4)	36-1/8 (917)	48 (1219)		52.8 (24)	
4 (100)	4.500 (114.3)	175 (12.1)	±4 (101.6)	29-7/8 (760)	35-1/4 (897)		59.4 (26.9)	
			±8 (203.2)	31-7/8 (810)	43-1/4 (1099)		66 (29.9)	
			±16 (406.4)	40-1/8 (1020)	56-1/4 (1427)		81.4 (36.9)	
6 (150)	6.625 (168.3)	175 (12.1)	±4 (101.6)	43-1/2 (1104)	46-3/8 (1177)		3/4	132 (59.9)
			±8 (203.2)	43-1/2 (1104)	55-1/8 (1402)			140.8 (63.9)
			±16 (406.4)	49-3/4 (1264)	68-1/8 (1730)			162.8 (73.8)
8" (200)	8.625 (219.1)	175 (12.1)	±4 (101.6)	55-1/2 (1409)	58-1/2 (1487)	248.6 (112.8)		
			±8 (203.2)	55-1/2 (1409)	70-3/4 (1796)	264 (119.8)		
			±16 (406.4)	57-7/8 (1469)	77-3/4 (1976)	281.6 (127.7)		
10" (250)	10.750 (273.0)	175 (12.1)	±4 (101.6)	67-7/8 (1724)	66-1/2 (1689)	407 (184.6)		
			±8 (203.2)	67-7/8 (1724)	78-1/2 (1992)	431.2 (195.6)		
			±16 (406.4)	67-7/8 (1724)	90-3/8 (2297)	455.4 (206.6)		

Installation

The Reliable Model RLP RASCOLOOP seismic expansion joints shall be installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems," as well as the requirements of any authorities having jurisdiction. Additionally, assembly of grooved couplings to connect the RASCOLOOP expansion joint to the system shall follow the coupling manufacturer's installation procedure. Appropriate care must be taken during installation to ensure that the flexible hose portion of the RASCOLOOP expansion joint is not pinched or punctured, and that the grooved seal surface of the end connections is not damaged in away that will prevent sealability of the grooved coupling gasket.

Installation Instructions

1. Installation and placement of RASCOLOOP expansion joints in a fire-suppression system shall be performed in accordance with NFPA 13 guidelines for seismic devices and any local jurisdiction requirements.
2. RASCOLOOP expansion joints include a tack-welded shipping bar. The shipping bar shall be removed prior to pressure-testing an installed RASCOLOOP expansion joint. It is recommended that the shipping bar be removed after installation. If the shipping bar is removed prior to installation care should be taken to ensure that the flexible hose and grooved connections are not damaged during the removal process or the installation process; damage to the grooved connection sealing areas may compromising pressure-containment of the fire-suppression system and damage to the flexible hose may affect water flow performance.
3. Clearance all around the RASCOLOOP expansion joint shall be greater than the movement range for the specific product installed.
4. For "Vertical" installations where the loop portion of the RASCOLOOP expansion joint hangs down vertically below the connections and associated piping, no additional supports are required; the grooved connections to the fire-suppression system provide adequate supporting of the Rascoloop expansion joint.

Installation Instructions (cont.)

5. For "Vertical" installations where the loop portion of the RASCOLOOP expansion joint is vertically above the connections and associated piping, in sizes 2-1/2" (65 mm) or larger or installations utilizing flexible couplings, additional support is required that attaches to the Hanger Support Loop. This support may be in the form of a hanger rod or cable, and shall have a length that is the greater of the following:
 - 12" (300 mm) long
 - 2 times the amount of movement allowed by the RASCOLOOP expansion joint installed
6. For "Horizontal" installations 2" (50 mm) or smaller utilizing rigid couplings to connect to the fire-suppression system no additional supports are required; the grooved connections to the fire-suppression system adequately support the RASCOLOOP expansion joint.
7. For "Horizontal" installations 2-1/2" (65 mm) or larger, or installations utilizing flexible couplings, additional support is required that attaches to the Hanger Support Loop. This support may be in the form of a hanger rod or cable, and shall have a length that is the greater of the following:
 - 12" (300 mm) long
 - 2 times the amount of movement allowed by the RASCOLOOP expansion joint installed
8. Grooved couplings shall be installed in accordance with the installation instructions of the grooved coupling manufacturer.
9. Air shall be removed by flowing water through the RASCOLOOP expansion joint prior to pressure testing or operation.