

Reliable®

RASCOFLEX™ Sprinkler Connections

cULus Listed, FM Approved

Product Description

RASCOFLEX™ Sprinkler Connections are intended to connect a branch line to a sprinkler using a flexible stainless steel hose assembly. RASCOFLEX™ Sprinkler Connections are suitable for use in suspended and hard ceiling applications such as T-Bar ceiling grids, wood, metal stud, or hat furring channel hard lid ceilings. Every package contains one (1) fully assembled stainless steel flexible sprinkler system complete with hose, branch line connection, and sprinkler connection, as well as the pre-assembled bracket assembly to attach to the ceiling.

RASCOFLEX™ Sprinkler Connections are designed for use in hydraulically calculated wet, preaction, or dry sprinkler systems per NFPA 13, 13R, 13D, and FM Global Loss Prevention Data Sheets.

Technical Data

Table A

Maximum Working Pressure		FM: 200 psi (13.79 bar) UL: 175 psi (12.07 bar)
Maximum Working Temperature		300°F (149°C)
Connections	Inlet/Branch Line	1" NPT
	Outlet/Reducer	1/2" or 3/4" NPT
Minimum Bending Radius		UL: 3" (76 mm) FM: 7" (178 mm)
Maximum Number of Bends		See Friction Loss Chart
Maximum K-Factor	1/2" Outlet	5.6 (80 metric)
	3/4" Outlet	UL: 14.0 (200 metric)
		FM: 8.0 (115 metric)

Material Specifications

Table B

Part Description	Material
Flexible Hose	AISI Type 304 Stainless Steel
Braid	AISI Type 304 Stainless Steel
Nut and Nipple	Zinc Plated Carbon Steel
Gasket Seal	EPDM
Isolation Ring	Nylon 66
Reducers: 1/2" or 3/4"	Zinc Plated Carbon Steel
Bar Stock	Zinc Plated SGCC Steel
Brackets: Center and Side	Zinc Plated SPCC Steel

Listings and Approvals

FM Approved Class No. 1637 (FM)

UL Listed and UL Certified for Canada to ANSI/UL 2443 (cULus)



RASCOFLEX™ Sprinkler Connections

Maintenance

RASCOFLEX™ Sprinkler Connections should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Patents

RASCOFLEX™ Sprinkler Connections may be covered by one or more of the following US Patent Nos. 10,173,088 and 10,328,296.

Ordering Information

Specify:

Nominal Hose Length

- 24" (610 mm)
- 31" (790 mm)
- 40" (1015 mm)
- 48" (1220 mm)
- 60" (1525 mm)
- 72" (1830 mm)

Reducer Outlet: 1/2" NPT or 3/4" NPT

Reducer Type

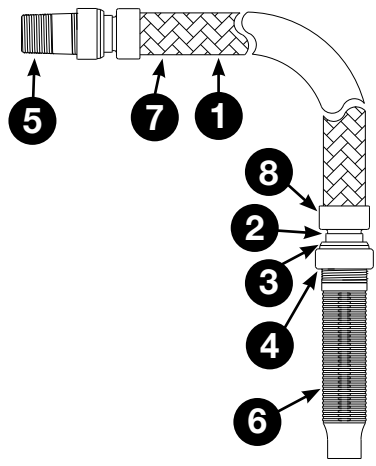
- Standard:
- 6-1/8" (155 mm) straight
- Optional:
- 4-1/4" (110 mm) straight
 - 5-1/4" (135 mm) straight
 - 11-3/4" (300 mm) straight
 - 5-5/8" (143 mm) elbow
 - 7-3/8" (187 mm) elbow

Bracket Length

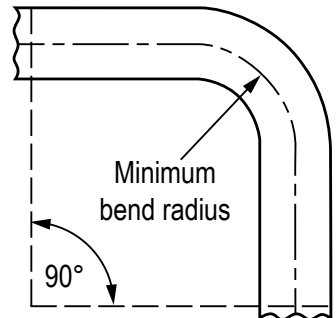
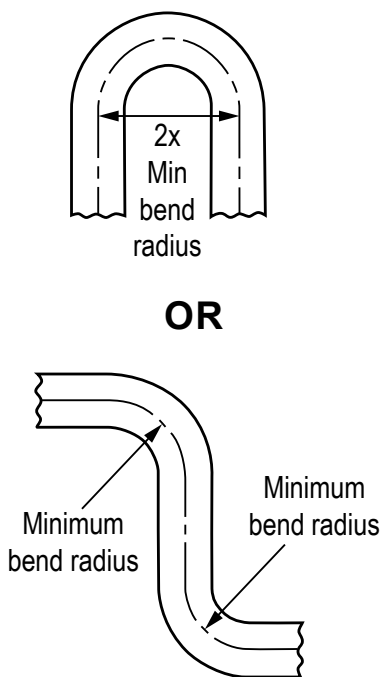
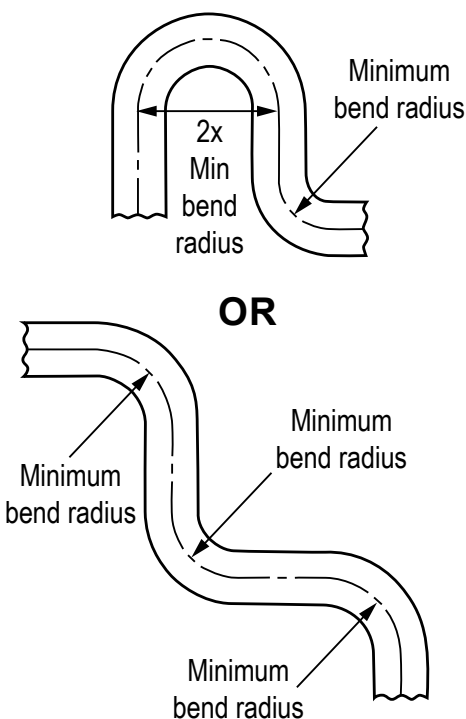
- 24" (610 mm) standard
- 48" (1220 mm) optional

Flexible Hose

Number	Item Description
1	Flexible Hose/Bellow
2	Isolation Ring
3	Gasket
4	Nut
5	Branch Line Nipple (1")
6	Reducer
7	Braid
8	Welded Collar Fitting



Flexible Hose Number of Bends

One Bend	Two Bends	Three Bends
 <p>Minimum bend radius</p> <p>90°</p>	 <p>2x Min bend radius</p> <p>OR</p> <p>Minimum bend radius</p> <p>Minimum bend radius</p>	 <p>Minimum bend radius</p> <p>2x Min bend radius</p> <p>OR</p> <p>Minimum bend radius</p> <p>Minimum bend radius</p> <p>Minimum bend radius</p>



cULus Friction Loss Data

Table C

Nominal Length of Flexible Hose in (mm)	Reducer		Maximum Sprinkler K-Factor gpm/psi ^{1/2} (lpm/bar ^{1/2})	Maximum Number of 90° Bends at 3" (76mm) Bend Radius	Equivalent Length of 1" (33.7mm) Sch. 40 Pipe (C=120), ft (m)
	NPT Threads	Type			
24 (610)	1/2	Straight	5.6 (80)	2	10 (3)
	3/4	Straight	14.0 (200)	2	13 (4)
31 (790)	1/2	Straight	5.6 (80)	3	14 (4.3)
	3/4	Straight	14.0 (200)	3	16 (4.9)
40 (1015)	1/2	Straight	5.6 (80)	4	21 (6.4)
	3/4	Straight	14.0 (200)	4	23 (7)
48 (1220)	1/2	Straight	5.6 (80)	4	24 (7.3)
	3/4	Straight	14.0 (200)	4	26 (7.9)
60 (1525)	1/2	Straight	5.6 (80)	4	25 (7.6)
	3/4	Straight	14.0 (200)	4	30 (9.1)
72 (1830)	1/2	Straight	5.6 (80)	5	36 (11)
	3/4	Straight	14.0 (200)	5	33 (10.1)

UL Notes:

1. Available data for use with 6.1" straight reducers.
2. Sprinkler K-Factor: 5.6 (80 metric) for 1/2-inch reducer and 14.0 (200 metric) for 3/4-inch reducer.
3. RASCOFLEX™ Sprinkler Connections have been tested and approved by Underwriter's Laboratories, Inc. for use in wet, preaction, and dry sprinkler systems per NFPA 13, 13D, 13R and UL2443.



FM Friction Loss Data

Table D

Nominal Length of Flexible Hose in (mm)	Reducer		Maximum Sprinkler K-Factor gpm/psi ^{1/2} (lpm/bar ^{1/2})	Maximum Number of 90° Bends at 3" (76mm) Bend Radius	Equivalent Length of 1" (33.7mm) Sch. 40 Pipe (C=120), ft (m)
	NPT Threads	Type			
24 (610)	1/2	Straight	5.6 (80)	1	9.7 (2.9)
	1/2	90° Elbow	5.6 (80)	0	11.5 (3.5)
	3/4	Straight	8.0 (115)	1	9.9 (3)
	3/4	90° Elbow	8.0 (115)	0	10.2 (3.1)
31 (790)	1/2	Straight	5.6 (80)	2	12.4 (3.8)
	1/2	90° Elbow	5.6 (80)	2	15.8 (4.8)
	3/4	Straight	8.0 (115)	2	13.7 (4.1)
	3/4	90° Elbow	8.0 (115)	2	14.5 (4.4)
40 (1015)	1/2	Straight	5.6 (80)	2	15.9 (4.8)
	1/2	90° Elbow	5.6 (80)	2	21.6 (6.6)
	3/4	Straight	8.0 (115)	2	18.5 (5.6)
	3/4	90° Elbow	8.0 (115)	2	20 (6)
48 (1220)	1/2	Straight	5.6 (80)	3	19.0 (5.8)
	1/2	90° Elbow	5.6 (80)	3	25.9 (7.9)
	3/4	Straight	8.0 (115)	3	22.7 (6.9)
	3/4	90° Elbow	8.0 (115)	3	24.8 (7.5)
60 (1525)	1/2	Straight	5.6 (80)	4	23.7 (7.2)
	1/2	90° Elbow	5.6 (80)	4	33.1 (10)
	3/4	Straight	8.0 (115)	4	29.1 (8.8)
	3/4	90° Elbow	8.0 (115)	4	32.2 (9.8)
72 (1830)	1/2	Straight	5.6 (80)	4	28.4 (8.6)
	1/2	90° Elbow	5.6 (80)	4	40.4 (12.3)
	3/4	Straight	8.0 (115)	4	35.5 (10.8)
	3/4	90° Elbow	8.0 (115)	4	39.5 (12)

FM Notes:

1. RASCOFLEX™ Sprinkler Connections have been tested and approved by FM Approvals for use in wet, preaction, and dry sprinkler systems per FM data sheets 2-0, 2-5, and 2-8 per FM1637.
2. Maximum sprinkler K-Factor: 5.6 (80 metric) for 1/2-inch reducer and 8.0 (115 metric) for 3/4-inch reducer.
3. Differences in equivalent lengths are due to varying test methods, per FM 1637 standards.
4. Above data of friction loss for use with 6.1" straight reducers.