

# Reliable®

## RASCOFLEX® Model RFBW Sprinkler Connections with Welded Adapters

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.

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.

RASCOFLEX® Model RFBW Sprinkler Connections feature inlet and outlet adapters that are welded to the stainless steel flexible tube.



RASCOFLEX® Model RFBW Sprinkler Connections

Technical Data		Table A
<b>Maximum Working Pressure</b>		FM: 200 psi (13.8 bar) UL: 175 psi (12.1 bar)
<b>Maximum Working Temperature</b>		300°F (149°C)
<b>Connections</b>	Inlet/Branch Line	1" NPT
	Outlet/Reducer	1/2" or 3/4" NPT
<b>Minimum Bending Radius</b>		UL: 2" (51 mm) FM: 7" (178 mm)
<b>Maximum Number of Bends</b>		See Friction Loss Chart
<b>Maximum K-Factor</b>	1/2" Outlet	5.6 (80 metric)
	3/4" Outlet	14.0 (200 metric)

### 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.

### Listings and Approvals

FM Approved Class No. 1637 (FM)

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

### Ordering Information

#### Specify:

Model Name

- Model RFBW

Nominal Hose Length

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

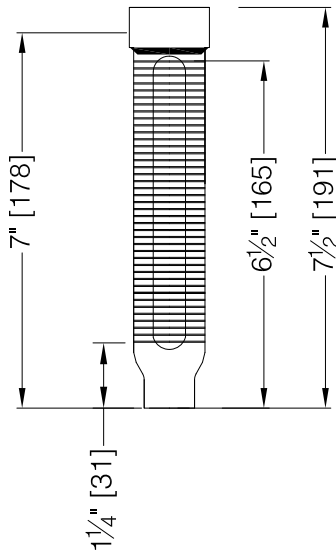
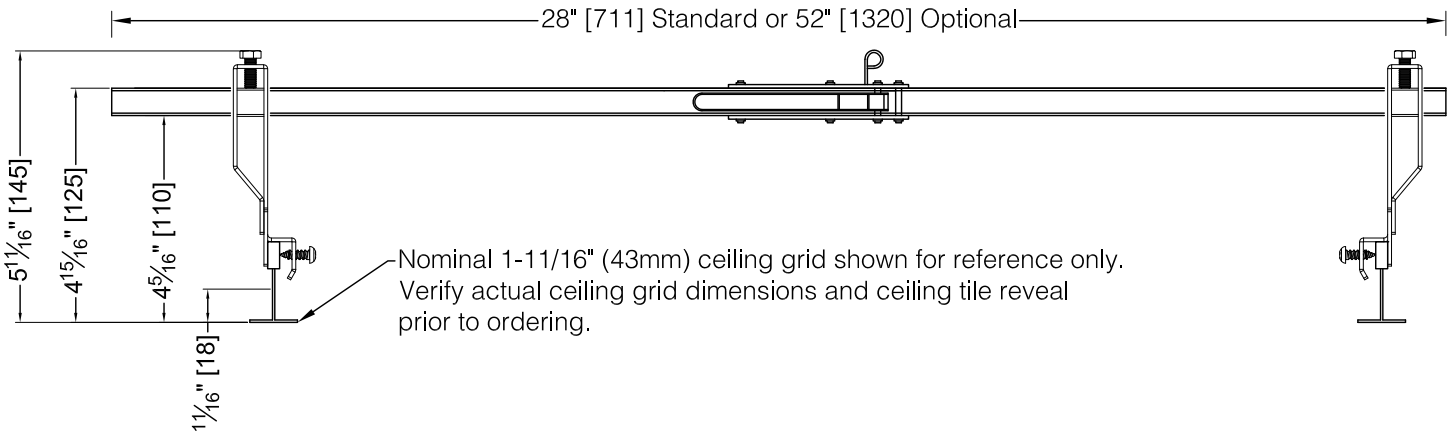
Reducer Outlet: 1/2" NPT or 3/4" NPT

Bracket Assembly Length

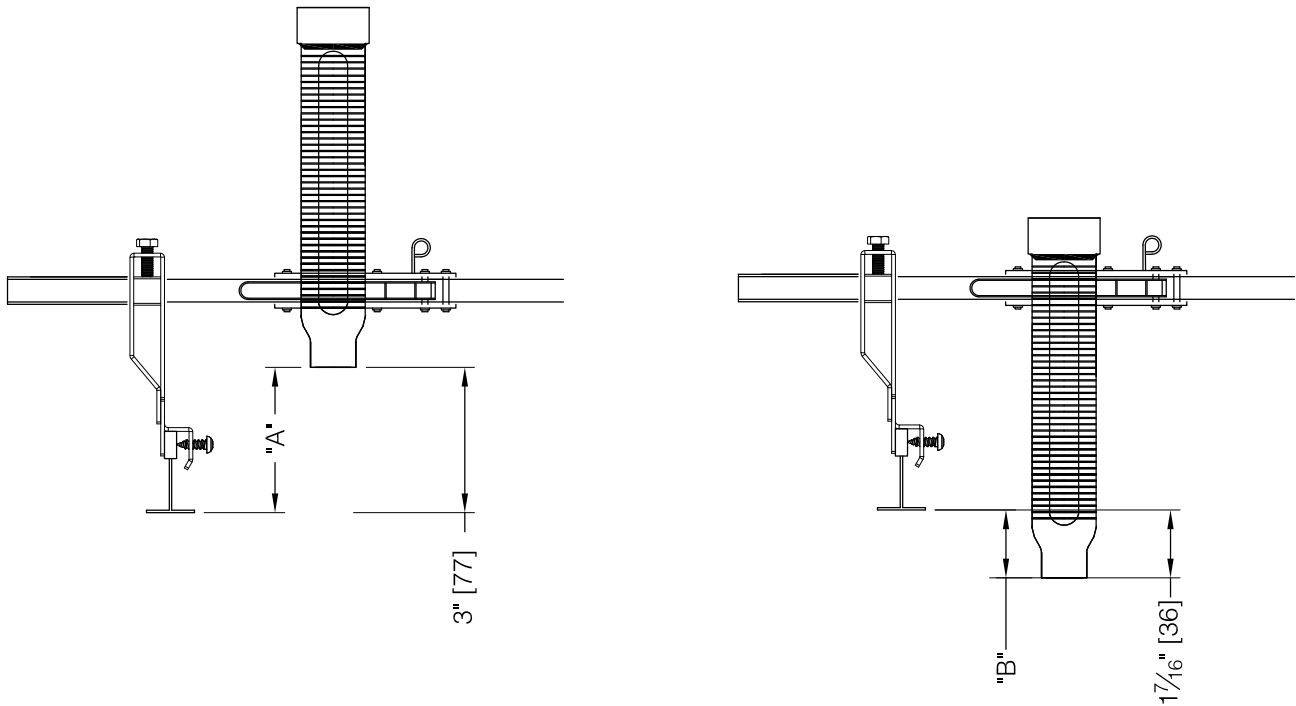
- 24" (610 mm) standard
- 48" (1220 mm) optional

Accessories

- See Table F



7" (178mm) Straight



Minimum and Maximum Face of Fitting to Bottom of Ceiling Grid

Table B

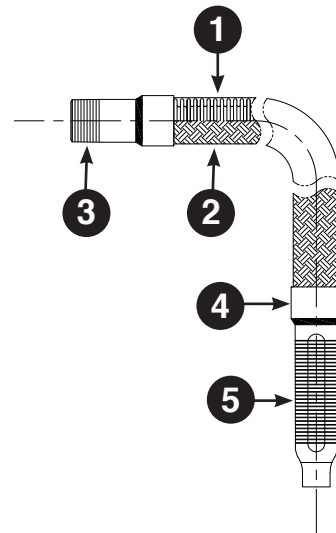
	7" (178 mm) Straight
<b>Fig. 3 Dimension A</b> Max. Face of Fitting Distance above Bottom of Ceiling Grid	4" (102 mm)
<b>Fig. 3 Dimension B</b> Max. Face of Fitting Distance from Bottom of Ceiling Grid	1-7/16" (36 mm) below

**Note:** Based on 1-11/16" (43mm) tall ceiling grid.

**Materials**

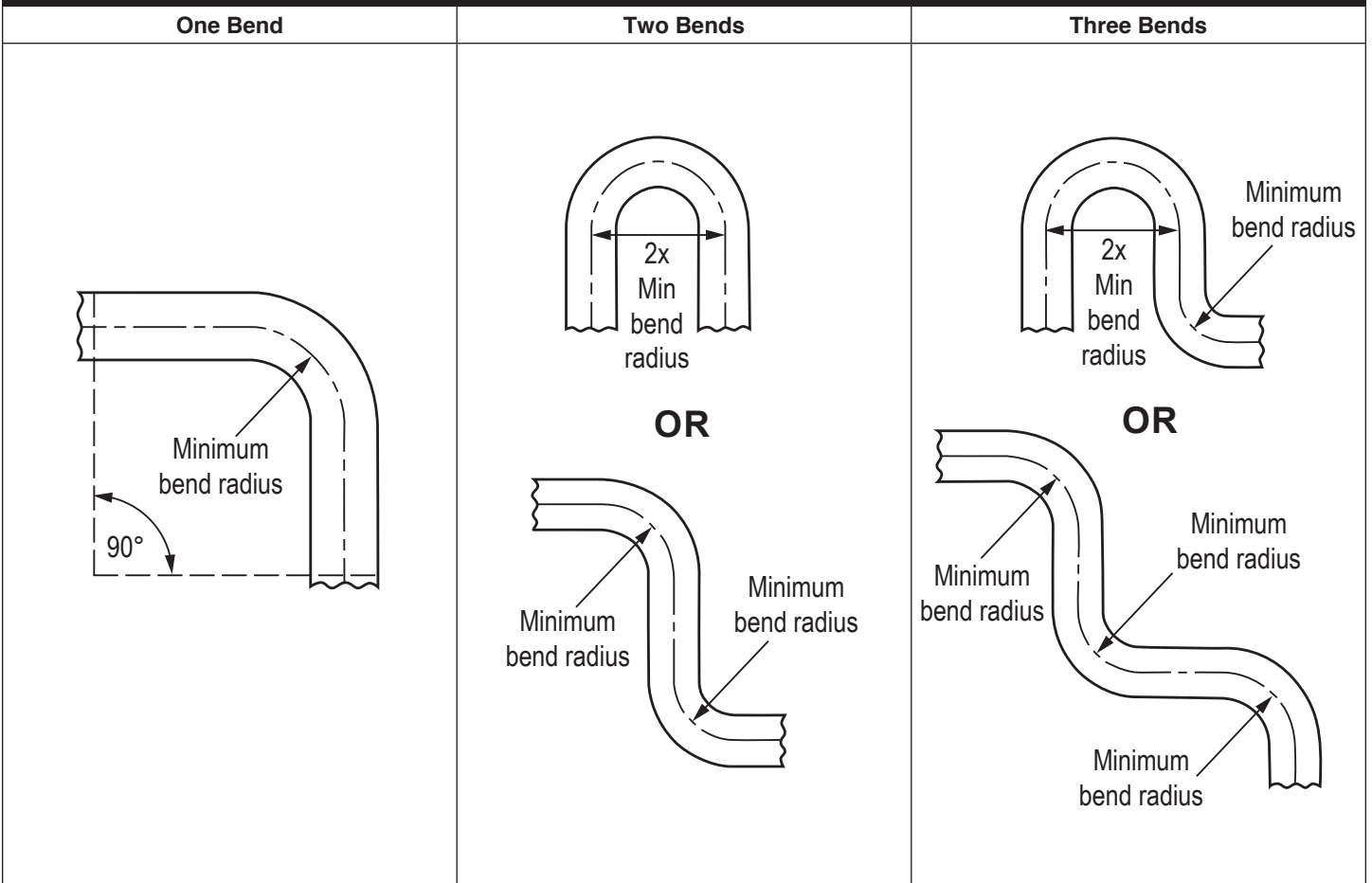
**Figure 4**

Number	Item Description	Material
1	Flexible Hose/Bellow	AISI Type 304 Stainless Steel
2	Braid	AISI Type 304 Stainless Steel
3	Branch Line Nipple (1")	AISI Type 304 Stainless Steel
4	Welded Collar Fitting	AISI Type 304 Stainless Steel
5	Reducer	AISI Type 304 Stainless Steel



**Flexible Hose Number of Bends**

**Figure 5**



**Note:** Do NOT install RASCOFLEX Sprinkler Connections with the flexible hose pulled straight or tight. Some flexibility in the form of an allowable bend or bends must be provided.



**cULus Friction Loss Data**

**Table D**

Nominal Length of Flexible Hose in (mm)	Reducer		Maximum Sprinkler K-Factor gpm/psi <sup>1/2</sup> (lpm/bar <sup>1/2</sup> )	Maximum Number of 90° Bends at 2" (51 mm) 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	11 (3.4)
	3/4	Straight	14.0 (200)	2	14 (4.3)
31 (790)	1/2	Straight	5.6 (80)	4	18 (5.5)
	3/4	Straight	14.0 (200)	4	22 (6.7)
40 (1015)	1/2	Straight	5.6 (80)	5	25 (7.6)
	3/4	Straight	14.0 (200)	5	29 (8.8)
48 (1220)	1/2	Straight	5.6 (80)	8	37 (11.3)
	3/4	Straight	14.0 (200)	8	43 (13.1)
60 (1525)	1/2	Straight	5.6 (80)	10	48 (14.6)
	3/4	Straight	14.0 (200)	10	51 (15.5)
72 (1830)	1/2	Straight	5.6 (80)	12	52 (15.8)
	3/4	Straight	14.0 (200)	12	55 (16.8)

**UL Notes:**

1. Available data for use with 7" straight reducers.
2. 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.

**Note:**

All Reliable RASCOFlex products may be painted provided the paint is compatible with the following materials of construction:

- Stainless steel
- Zinc-plated carbon steel
- Ductile iron

Care should be taken to ensure that the sprinkler and associated escutcheon or cover plate are not painted. Additionally, care should be taken to avoid painting over any manufacturer or product identifying markings or tags on the flexible drop. No paint of any kind should be applied to threads or components / surfaces that comprise a pressure-containing seal.



FM Friction Loss Data

**Table E**







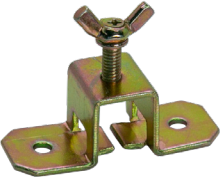




Nominal Length of Flexible Hose in (mm)	Reducer		Maximum Sprinkler K-Factor gpm/psi <sup>1/2</sup> (lpm/bar <sup>1/2</sup> )	Maximum Number of 90° Bends at 7" (178mm) Bend Radius	Equivalent Length of 1" (33.7mm) Sch. 40 Pipe (C=120), ft (m)
	NPT Threads	Type			
24 (610)	1/2	Straight	5.6 (80)	1	9.7 (2.9)
	3/4	Straight	8.0 (115)	1	9.9 (3)
			11.2 (160)	1	9.8 (2.9)
			14.0 (200)	1	9.6 (2.9)
31 (790)	1/2	Straight	5.6 (80)	2	12.4 (3.8)
	3/4	Straight	8.0 (115)	2	13.7 (4.1)
			11.2 (160)	2	12.9 (3.9)
			14.0 (200)	2	12.2 (3.7)
40 (1015)	1/2	Straight	5.6 (80)	2	15.9 (4.8)
	3/4	Straight	8.0 (115)	2	18.5 (5.6)
			11.2 (160)	2	17.4 (5.3)
			14.0 (200)	2	16.3 (4.9)
48 (1220)	1/2	Straight	5.6 (80)	3	19.0 (5.8)
	3/4	Straight	8.0 (115)	3	22.7 (6.9)
			11.2 (160)	3	21.5 (6.5)
			14.0 (200)	3	20.5 (6.2)
60 (1525)	1/2	Straight	5.6 (80)	4	23.7 (7.2)
	3/4	Straight	8.0 (115)	4	29.1 (8.8)
			11.2 (160)	4	28 (8.5)
			14.0 (200)	4	27 (8.2)
72 (1830)	1/2	Straight	5.6 (80)	4	28.4 (8.6)
	3/4	Straight	8.0 (115)	4	35.5 (10.8)
			11.2 (160)	4	34.3 (10.4)
			14.0 (200)	4	33.2 (10.1)

**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. Differences in equivalent lengths are due to varying test methods, per FM 1637 standards.
3. Above data of friction loss for use with 7" straight reducers.

Accessories List

**Table F**

 <p>Hat Channel End Bracket- Short 3" (76mm) 7M99003310</p>	 <p>Hat Channel End Bracket- Long 3-3/4" (95mm) 7M99003311</p>	 <p>Metal Stud End Bracket-Short 1-1/2" (38mm) 7M99003312</p>
 <p>Metal Stud End Bracket- Long 2-1/16" (53mm) 7M99003313</p>	 <p>T-Bar End Bracket-Short 2-5/8" (68mm) 7M99003314</p>	 <p>T-Bar End Bracket-Long 4-1/8" (105mm) 7M99003316</p>
 <p>Wood Beam Stud End Bracket 7M99003317</p>	 <p>Replacement Center Bracket 7M99003321</p>	 <p>2" (50 mm) Bend Radius Indicator 7M99004179</p>
 <p>#2 Square Drive Bit 7M99004539</p>		
 <p>48" (1220mm) Bracket Assembly 7M99004840</p>		