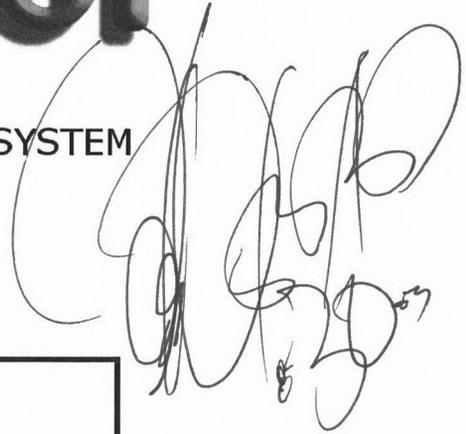


Uponor

AquaSAFE™ FIRE SAFETY SYSTEM



Uponor
5925 148th Street West

Apple Valley, MN 55124
800-321-4739

Job Name : - One Head Calculation (H.1)
Drawing : RESIDENTIAL
Location : 3222 SW 170TH AVE PORTLAND OR 97236
Remote Area : 1
Contract : 13908F
Data File : 13908F 3222 SE 170th.wx1

HYDRAULIC DESIGN INFORMATION SHEET

Name - Date - 8/29/13
Location - PORTLAND OR 97236
Building - RESIDENTIAL System No. - 1
Contractor - EDWARD MULLEN PLUMBING Contract No. - 13908F
Calculated By - MELISA RODRIGUEZ CET III Drawing No. - F100
Construction: (X) Combustible () Non-Combustible Ceiling Height VARIES
OCCUPANCY - RESIDENTIAL

S Type of Calculation: () NFPA 13 Residential () NFPA 13R (X) NFPA 13D
Y Number of Sprinklers Flowing: (X) 1 () 2 () 4 ()
S () Other
T () Specific Ruling Made by Date

E
M Listed Flow at Start Point - 13 Gpm System Type
Listed Pres. at Start Point - 7.04 Psi (X) Wet () Dry
D MAXIMUM LISTED SPACING 16 x 16 () Deluge () PreAction
E Domestic Flow Added - 0 Gpm Sprinkler or Nozzle
S Additional Flow Added - Gpm Make SENJU SPRINKLER Model RC-RES
I Elevation at Highest Outlet - 119 Feet Size 7/16 K-Factor 4.9
G Note: Temperature Rating 162
N

Calculation Gpm Required 13 Psi Required 30.18 At Ref Pt STR
Summary C-Factor Used: Overhead 150 Underground 150

W Water Flow Test: Pump Data: Tank or Reservoir:
A Date of Test - x Rated Cap. Cap.
T Time of Test - x @ Psi Elev.
E Static (Psi) - 55 Elev.
R Residual (Psi) - 50 Other Well
Flow (Gpm) - 300 Proof Flow Gpm
S Elevation - 100

P Location: x
P
L Source of Information: x
Y

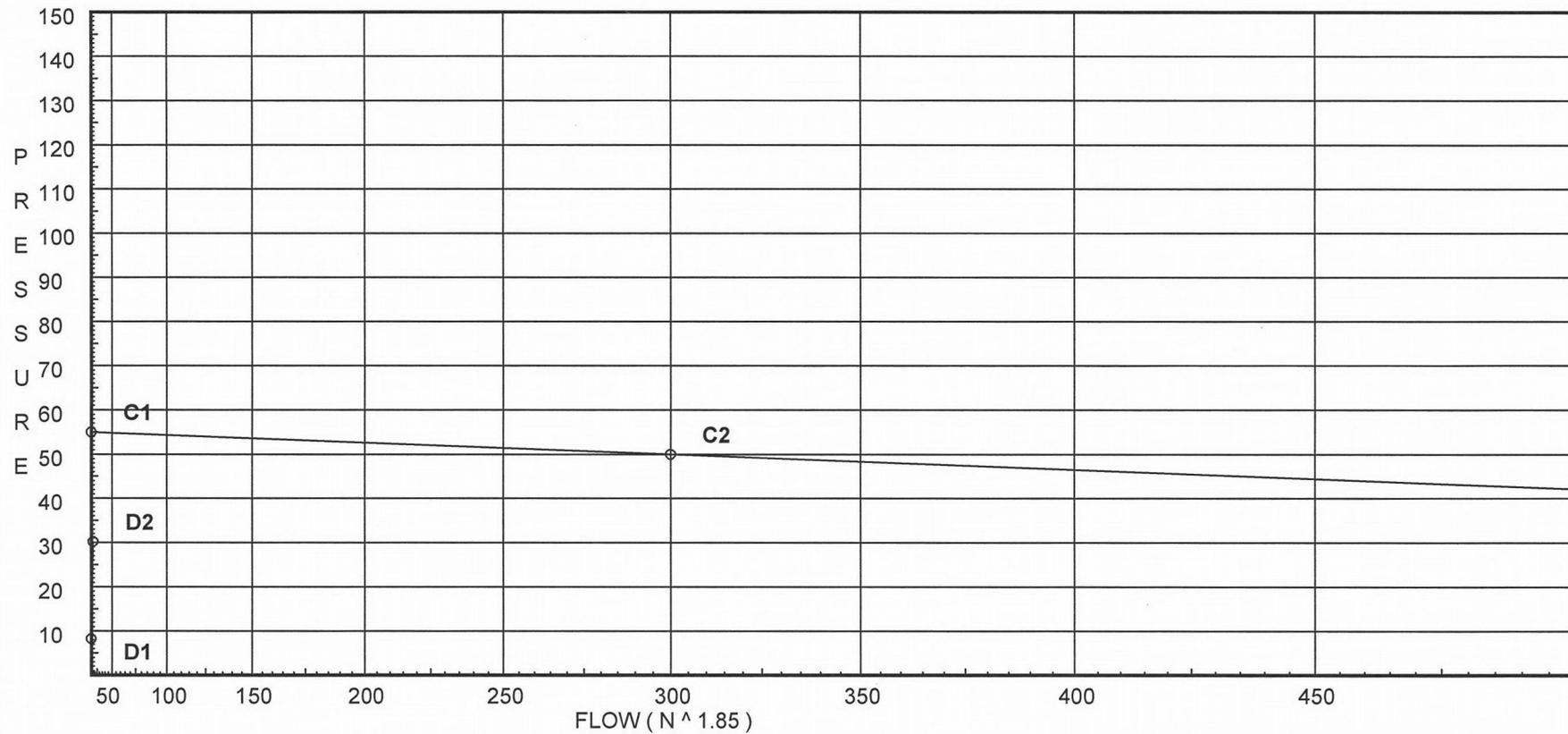
Water Supply Curve (C)

Uponor
- One Head Calculation (H.1)

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Date 8/30/2013

City Water Supply:
C1 - Static Pressure : 55
C2 - Residual Pressure: 50
C2 - Residual Flow : 300

Demand:
D1 - Elevation : 8.229
D2 - System Flow : 13.0012
D2 - System Pressure : 30.180
Hose (Adj City) : _____
Hose (Demand) : _____
D3 - System Demand : 13.0012
Safety Margin : 24.805



Fittings Used Summary

Uponor
- One Head Calculation (H.1)

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Fitting Legend		½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24	
Abbrev.	Name																					
E	90° Standard Elbow	2	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61	
G	Generic Gate Valve	1	1	1	1	1	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13	
T	90° Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121	
Uel	Aquapex 90 Elbow	11	11	12	11	13	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Utb	Aquapex Tee - Branch	2	17	14	9	12	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Utr	Aquapex Tee - Run	1	2	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Flow Summary - NFPA 2007

Uponor
- One Head Calculation (H.1)

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SUPPLY ANALYSIS

<i>Node at Source</i>	<i>Static Pressure</i>	<i>Residual Pressure</i>	<i>Flow</i>	<i>Available Pressure</i>	<i>Total Demand</i>	<i>Required Pressure</i>
STR	55.0	50	300.0	54.985	13.0	30.18

NODE ANALYSIS

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
H.1	119.0	4.9	7.04	13.0	
T.27	119.0		10.37		
H.5	119.0		10.86		
H.9	119.0		11.22		
T.30	119.0		11.69		
H.13	119.0		12.26		
H.16	119.0		12.58		
T.39	119.0		12.95		
T.42	109.0		17.89		
S.1	104.0		20.38		
MTR	100.0		28.71		
STR	100.0		30.18		
H.4	119.0		8.4		
T.23	119.0		10.48		
H.8	119.0		11.08		
T.28	119.0		11.31		
T.31	119.0		11.65		
H.14	119.0		11.73		
T.33	119.0		11.86		
H.18	119.0		12.11		
H.15	119.0		12.34		
T.24	109.0		14.82		
T.34	109.0		16.04		
T.41	109.0		17.82		
T.26	109.0		14.9		
H.7	109.0		14.98		
T.21	109.0		15.07		
H.3	109.0		15.31		
H.2	109.0		15.67		
H.6	109.0		16.05		
H.10	109.0		16.6		
T.36	109.0		16.9		
T.37	109.0		16.98		
T.38	109.0		17.06		
H.17	109.0		17.25		
T.40	109.0		17.36		
H.20	109.0		17.5		
H.19	109.0		17.69		
T.25	109.0		14.87		
H.12	119.0		11.67		
T.32	119.0		11.69		
H.11	109.0		16.94		

Flow Summary - NFPA 2007

Uponor
- One Head Calculation (H.1)

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NODE ANALYSIS (cont.)

<i>Node Tag</i>	<i>Elevation</i>	<i>Node Type</i>	<i>Pressure at Node</i>	<i>Discharge at Node</i>	<i>Notes</i>
-----------------	------------------	------------------	-----------------------------	------------------------------	--------------

Final Calculations - Hazen-Williams

Uponor
- One Head Calculation (H.1)

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Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftg's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
H.1	7.08	0.671	1Utb 17.0	13.000	7.040			K Factor = 4.90	
to		150.0	0.0	17.000	0.0				
T.27	7.08	0.1110	0.0	30.000	3.331			Vel = 6.42	
T.27	-3.76	0.671	1Utr 2.0	16.000	10.371				
to		150.0	0.0	2.000	0.0				
H.5	3.32	0.0274	0.0	18.000	0.493			Vel = 3.01	
H.5	0.0	0.671	1Utr 2.0	11.000	10.864				
to		150.0	0.0	2.000	0.0				
H.9	3.32	0.0274	0.0	13.000	0.356			Vel = 3.01	
H.9	0.0	0.671	1Utr 2.0	15.000	11.220				
to		150.0	0.0	2.000	0.0				
T.30	3.32	0.0274	0.0	17.000	0.466			Vel = 3.01	
T.30	-0.63	0.671	1Utb 17.0	12.000	11.686				
to		150.0	1Utr 2.0	19.000	0.0				
H.13	2.69	0.0186	0.0	31.000	0.576			Vel = 2.44	
H.13	0.0	0.671	1Utr 2.0	15.000	12.262				
to		150.0	0.0	2.000	0.0				
H.16	2.69	0.0186	0.0	17.000	0.317			Vel = 2.44	
H.16	0.0	0.671	1Utb 17.0	3.000	12.579				
to		150.0	0.0	17.000	0.0				
T.39	2.69	0.0186	0.0	20.000	0.372			Vel = 2.44	
T.39	2.88	0.862	1Utb 17.0	15.000	12.951				
to		150.0	0.0	14.000	4.331				
T.42	5.57	0.0210	0.0	29.000	0.610			Vel = 3.06	
T.42	7.43	1.054	1T 2.44	6.000	17.892				
to		150.0	0.0	2.440	2.166				
S.1	13.0	0.0379	0.0	8.440	0.320			Vel = 4.78	
S.1	0.0	1.244	2E 3.443	150.000	20.378				
to		150.0	0.0	3.443	5.732			* Fixed loss = 4	
MTR	13.0	0.0169	0.0	153.443	2.597			Vel = 3.43	
MTR	0.0	0.995	1E 2.336	20.000	28.707				
to		150.0	1T 5.841	9.345	0.0				
STR	13.0	0.0502	1G 1.168	29.345	1.473			Vel = 5.36	
	0.0								
	13.00				30.180			K Factor = 2.37	
H.1	5.92	0.671	1Utr 2.0	15.000	7.040				
to		150.0	0.0	2.000	0.0				
H.4	5.92	0.0799	0.0	17.000	1.359			Vel = 5.37	
H.4	0.0	0.671	1Utb 17.0	9.000	8.399				
to		150.0	0.0	17.000	0.0				
T.23	5.92	0.0799	0.0	26.000	2.077			Vel = 5.37	
T.23	-2.52	0.671	1Utb 17.0	2.000	10.476				
to		150.0	1Utr 2.0	19.000	0.0				
H.8	3.4	0.0286	0.0	21.000	0.601			Vel = 3.08	
H.8	0.0	0.671	1Utr 2.0	6.000	11.077				
to		150.0	0.0	2.000	0.0				
T.28	3.4	0.0286	0.0	8.000	0.229			Vel = 3.08	
T.28	0.0	0.671	1Utr 2.0	10.000	11.306				
to		150.0	0.0	2.000	0.0				
T.31	3.4	0.0287	0.0	12.000	0.344			Vel = 3.08	

Final Calculations - Hazen-Williams

Uponor
- One Head Calculation (H.1)

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Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftg's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
T.31 to H.14	-0.52 2.88	0.671 150.0 0.0210	1Utr	2.0 0.0 0.0	2.000 2.000 4.000	11.650 0.0 0.084			Vel = 2.61	
H.14 to T.33	0.0 2.88	0.671 150.0 0.0208	1Utr	2.0 0.0 0.0	4.000 2.000 6.000	11.734 0.0 0.125			Vel = 2.61	
T.33 to H.18	0.0 2.88	0.671 150.0 0.0210	1Utr	2.0 0.0 0.0	10.000 2.000 12.000	11.859 0.0 0.252			Vel = 2.61	
H.18 to H.15	0.0 2.88	0.671 150.0 0.0210		0.0 0.0 0.0	11.000 0.0 11.000	12.111 0.0 0.231			Vel = 2.61	
H.15 to T.39	0.0 2.88	0.671 150.0 0.0210	1Utb 1Utr	17.0 2.0 0.0	10.000 19.000 29.000	12.342 0.0 0.609			Vel = 2.61	
	0.0 2.88					12.951			K Factor = 0.80	
T.27 to T.24	3.76	0.862 150.0		0.0 0.0 0.0	12.000 0.0 12.000	10.371 4.331 0.122			Vel = 2.07	
T.24 to T.34	-0.80 2.96	0.671 150.0 0.0221	2Utb	34.0 0.0 0.0	21.000 34.000 55.000	14.824 0.0 1.214			Vel = 2.69	
T.34 to T.41	1.15 4.11	0.671 150.0 0.0406	2Utb	34.0 0.0 0.0	10.000 34.000 44.000	16.038 0.0 1.787			Vel = 3.73	
T.41 to T.42	3.32 7.43	1.054 150.0 0.0134	1Utr	4.0 0.0 0.0	1.000 4.000 5.000	17.825 0.0 0.067			Vel = 2.73	
	0.0 7.43					17.892			K Factor = 1.76	
T.23 to T.26	2.52 2.52	0.862 150.0 0.0049		0.0 0.0 0.0	19.455 0.0 19.455	10.476 4.331 0.095			Vel = 1.39	
T.26 to H.7	0.80 3.32	0.671 150.0 0.0273		0.0 0.0 0.0	3.000 0.0 3.000	14.902 0.0 0.082			Vel = 3.01	
H.7 to T.21	0.0 3.32	0.671 150.0 0.0273	1Utr	2.0 0.0 0.0	1.000 2.000 3.000	14.984 0.0 0.082			Vel = 3.01	
T.21 to H.3	0.0 3.32	0.671 150.0 0.0274	1Utr	2.0 0.0 0.0	7.000 2.000 9.000	15.066 0.0 0.247			Vel = 3.01	
H.3 to H.2	0.0 3.32	0.671 150.0 0.0275	1Utr	2.0 0.0 0.0	11.000 2.000 13.000	15.313 0.0 0.357			Vel = 3.01	
H.2 to H.6	0.0 3.32	0.671 150.0 0.0274	1Utr	2.0 0.0 0.0	12.000 2.000 14.000	15.670 0.0 0.384			Vel = 3.01	

Final Calculations - Hazen-Williams

Uponor
- One Head Calculation (H.1)

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Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv. Ln.	Pipe Ftg's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
H.6 to H.10	0.0 3.32	0.671 150.0 0.0274	1Utr 2.0 0.0	18.000 2.000 20.000	16.054 0.0 0.548			Vel = 3.01	
H.10 to T.36	0.0 3.32	0.671 150.0 0.0274	1Utr 2.0 0.0	9.000 2.000 11.000	16.602 0.0 0.301			Vel = 3.01	
T.36 to T.37	-0.68 2.64	0.671 150.0 0.0180	1Utr 2.0 0.0	2.000 2.000 4.000	16.903 0.0 0.072			Vel = 2.40	
T.37 to T.38	0.68 3.32	0.671 150.0 0.0273	1Utr 2.0 0.0	1.000 2.000 3.000	16.975 0.0 0.082			Vel = 3.01	
T.38 to H.17	0.0 3.32	0.671 150.0 0.0274	1Utr 2.0 0.0	5.000 2.000 7.000	17.057 0.0 0.192			Vel = 3.01	
H.17 to T.40	0.0 3.32	0.671 150.0 0.0275	1Utr 2.0 0.0	2.000 2.000 4.000	17.249 0.0 0.110			Vel = 3.01	
T.40 to H.20	0.0 3.32	0.671 150.0 0.0274	1Utr 2.0 0.0	3.000 2.000 5.000	17.359 0.0 0.137			Vel = 3.01	
H.20 to H.19	0.0 3.32	0.671 150.0 0.0274	0.0 0.0 0.0	7.000 0.0 7.000	17.496 0.0 0.192			Vel = 3.01	
H.19 to T.41	0.0 3.32	0.671 150.0 0.0274	1Utr 2.0 0.0	3.000 2.000 5.000	17.688 0.0 0.137			Vel = 3.01	
	0.0 3.32				17.825			K Factor = 0.79	
T.24 to T.25	0.80 0.8	0.671 150.0 0.0020	1Utr 2.0 1Utb 17.0 0.0	4.000 19.000 23.000	14.824 0.0 0.045			Vel = 0.73	
T.25 to T.26	0.0 0.8	0.671 150.0 0.0019	1Uel 11.0 0.0 0.0	6.000 11.000 17.000	14.869 0.0 0.033			Vel = 0.73	
	0.0 0.80				14.902			K Factor = 0.21	
T.31 to H.12	0.52 0.52	0.671 150.0 0.0009	1Utb 17.0 1Utr 2.0 0.0	7.000 19.000 26.000	11.650 0.0 0.023			Vel = 0.47	
H.12 to T.32	0.0 0.52	0.671 150.0 0.0009	1Utb 17.0 0.0 0.0	3.000 17.000 20.000	11.673 0.0 0.018			Vel = 0.47	
T.32 to T.34	0.63 1.15	0.862 150.0 0.0011	0.0 0.0 0.0	14.000 0.0 14.000	11.691 4.331 0.016			Vel = 0.63	
	0.0 1.15				16.038			K Factor = 0.29	

Final Calculations - Hazen-Williams

Uponor
- One Head Calculation (H.1)

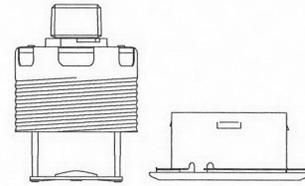
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Hyd. Ref. Point	Qa Qt	Dia. "C" Pf/Ft	Fitting or Eqv.	Ln.	Pipe Ftng's Total	Pt Pe Pf	Pt Pv Pn	*****	Notes	*****
T.30	0.63	0.671	1Utr	2.0	2.000	11.686				
to		150.0		0.0	2.000	0.0				
T.32	0.63	0.0012		0.0	4.000	0.005		Vel = 0.57		
	0.0									
	0.63					11.691		K Factor = 0.18		
T.36	0.69	0.671	1Utb	17.0	6.000	16.903				
to		150.0	1Utr	2.0	19.000	0.0				
H.11	0.69	0.0015		0.0	25.000	0.038		Vel = 0.63		
H.11	0.0	0.671	1Utb	17.0	6.000	16.941				
to		150.0		0.0	17.000	0.0				
T.37	0.69	0.0015		0.0	23.000	0.034		Vel = 0.63		
	0.0									
	0.69					16.975		K Factor = 0.17		

SENJU SPRINKLER CO.,LTD.

Residential Lead Free Flat Concealed Sprinkler, Pendent,

Model: RC-RES, K-Factor: 4.9, SIN: SS8461



GENERAL DESCRIPTION

The Model RC-RES Residential Flat Concealed Sprinklers are automatic sprinklers of the compressed fusible solder type. These are decorative and fast response. The Cover Plate Assembly hides the Deflector, Heat Responsive Element etc., which is in turn concealed above the ceiling. The cover plate has a flat profile, and its diameter is extremely small (2-5/8 inch, 68mm). The push-on and/or thread-on, thread-off design of the concealed cover plate assembly allows easy installation of the cover plate. Therefore, the Model RC-RES should be your first choice when aesthetics is the major consideration for ultimate appeal and unbeatable performance is desired. The Model RC-RES is designed for the residential occupancies and it is perfect for use in homes, hotels and other living quarters.

The Model RC-RES is to be used in wet pipe residential sprinkler systems for One- and Two- Family Dwellings and Manufactured Homes per NFPA 13D; wet pipe residential sprinkler systems for Residential Occupancies up to and Including Four Stories in Height per NFPA 13R; or, wet pipe sprinkler systems for the residential portions of any occupancies per NFPA 13.

The Model RC-RES has a 4.9 (70.6 LPM/bar^{1/2}) K-factor that meets the required residential flow rates with minimal residual pressure, which allows for smaller pipe sizes and water supply requirements.

For extended installation flexibility, the Model RC-RES provides 1/2 inch (12.8mm) vertical adjustment. This adjustment in installation decreases the need for precise cutting of the pipe that drops to the sprinkler and allows for a perfect fit with a range of pipe lengths.

The heat sensitivity and water distribution design of Model RC-RES allows for an increased chance of residents' escape or evacuation in case of fire. However, residential fire sprinkler systems are not a substitute for fire safety awareness or fire safety construction required by building codes.

"Lead Free" is defined in the Reduction of Lead in Drinking Water Act (S.3874) endorsed by AWWA's Water Utility Council, and California Assembly Bill #1953 as having less than or equal to a weighted average of 0.25% lead in wetted surface of pipes, plumbing fittings and fixtures.

WARNINGS

The Model RC-RES must be installed and maintained in accordance with the rules stated herein as well as in compliance with the applicable standards of the National Fire Protection Association regulations and the standards of any other authorities having jurisdiction.

In the event of this condition, consult the authorities having jurisdiction for guidance and approval.

Failure to do so may impair the integrity of these devices.

It is the responsibility of the installing contractor to provide a copy of this document to the owner or his representative, and in turn, it is the obligation of the owner to provide a copy of this document to a succeeding owner. The owner is responsible for maintaining their fire protection system and devices in proper operating condition. The installing contractor or sprinkler manufacturer should be contacted with any related questions.

TECHNICAL DATA

Approvals: **cUL-us Listed, NSF-61-G**
 Sprinkler Identification Number (SIN): **SS8461**
 Maximum Working Pressure: **175psi (12.1bar)**
 Discharge Coefficient (Nominal K-Factor):
K=4.9 GPM/psi^{1/2} (70.6 LPM/bar^{1/2})
 Temperature Rating:
162°F (72°C) Sprinkler with 140°F (60°C) Cover Plate
175°F (79°C) Sprinkler with 162°F (72°C) Cover Plate
 Color Code (Sprinkler)
162°F (72°C): Uncolored
175°F (79°C): White
 Color Code (Cover Plate)
140°F (60°C): No Mark
162°F (72°C): White-Color Mark
 Vertical Adjustment: **1/2 inch (12.8 mm)**
 Cover Plate Finishes:
White Painted, Ivory Painted, Nickel Plated or
Any Color (Choose a color of acceptable colors)
 Physical Characteristics: Ref. Figure 1

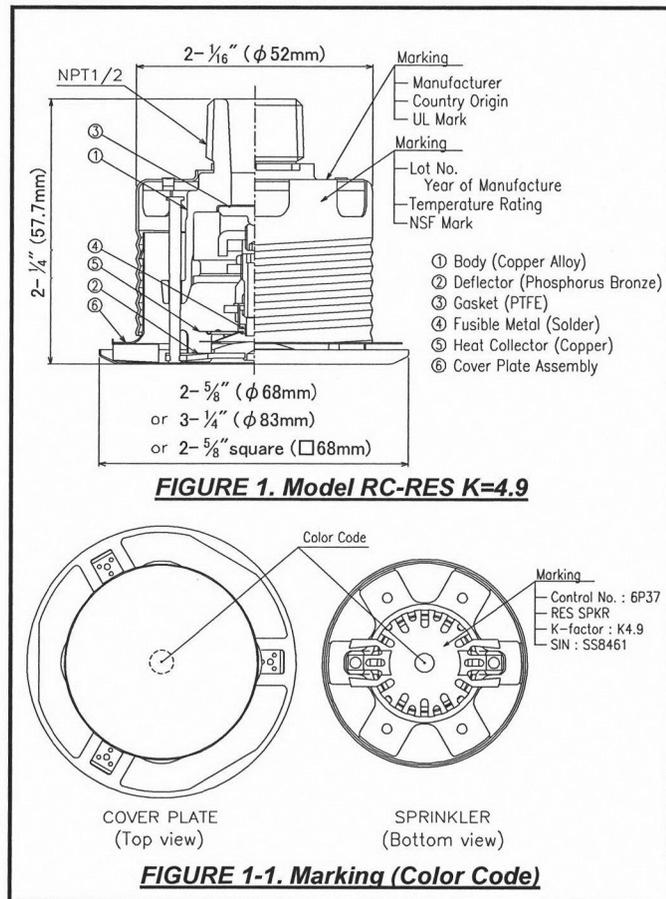


FIGURE 1. Model RC-RES K=4.9

FIGURE 1-1. Marking (Color Code)

OPERATION

In case of fire, the solder component that holds together the Cover Plate and the Retainer melts. Then, the Cover Plate is released at once. As a result, the Deflector drops down to the intended position. Two Heat Collectors are exposed to fire, and when sufficient heat from the fire is recorded, internal components of the sprinkler to fall apart. This leads to allow the water flow to be distributed on the affected by fire area. (Ref. Figure 2)

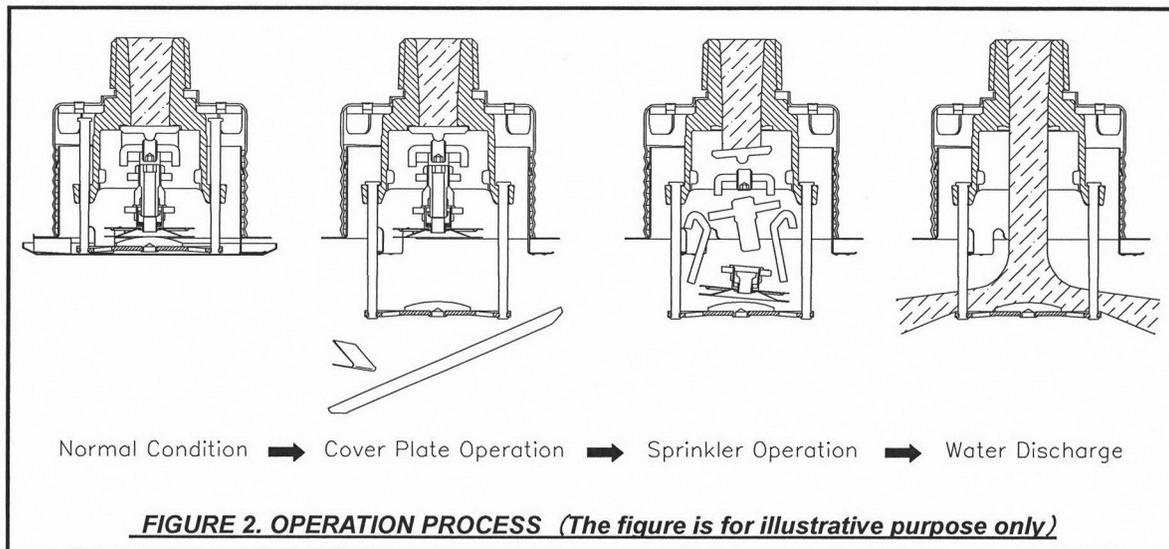


FIGURE 2. OPERATION PROCESS (The figure is for illustrative purpose only)

DESIGN CRITERIA

The herein stated rules for use and installation of Model RC-RES are provided by the manufacturer and must be strictly implemented for safe and full results.

NOTES

Residential Fire Sprinkler Systems should only be designed and installed by individuals who are completely familiar with automatic sprinkler system design, installation procedures, and techniques.

Several criteria may apply to the installation and usage of each sprinkler. Consequently, it is recommended that the sprinkler system designer review and develop a working understanding of the complete list of criteria prior to initiating the design of the sprinkler system.

Questions concerning sprinkler installation and usage criteria, which are not coverage by the following instructions, should be submitted to Contact Company. Include sketches and technical details as appropriate.

In some instances, the requirements of this document may concern specifications which are more stringent and which take precedence over those specified in NFPA 13, 13D, 13R, or by the authority having jurisdiction.

The Model RC-RES must not be used in applications where the air pressure above the ceiling is greater than that below.

The spray from the sprinkler is distributed radically outward and downward from the sprinkler deflector. Consequently, the sprinklers must be located such that there will be no blind spaces shielded from spray by partitions, room dividers, overhangs or other parts of the dwelling structure.

The number of sprinklers within each compartment (as defined by NFPA 13, 13D, or 13R) must be kept as small as possible. Do NOT use more sprinklers than necessary to cover a particular space.

Use only the Cover Plate provided with the Model RC-RES. The sprinkler must be secured in place by firmly fastening the sprinkler system piping to the structure. If the sprinkler is not properly secured in position, reaction forces resulting from sprinkler operation could alter its orientation and its water distribution pattern.

Obstruction to Water Distribution

Locations of sprinklers must follow the obstruction rules of NFPA 13 for Residential Sprinklers.

General Service Conditions

The Model RC-RES must only be utilized in WET PIPE sprinkler systems.

Heat Source Criteria

Refer to NFPA 13D or 13R for the requirements relating to the prevention of possible activation of the Heat Responsive Element of Model RC-RES, due to exposure to a heat sources other than an actual fire.

Precautionary Warnings for Corrosive Environments

The Model RC-RES should not be installed where they may be subjected to a corrosive environment including the following:

(1) Chlorine ion and Chloride environment.

Stress corrosion cracking may be caused by exposure to environments with Chlorine ion and Chloride. Exposure to this environment may result in sprinklers operating under Non-Fire conditions or Not Operating when exposed to an actual fire.

(2) Sprinkler system piping with Copper.

Sprinkler systems should be constructed in compliance with the applicable standards and the requirements for the copper piping when copper piping is used in the sprinkler system. (Reference standards NFPA 13, ASTM B813, B828, and CDA (Copper Development Association) – Solder Joint)

All residual flux must be removed from the interior and exterior of copper piping by thoroughly flushing before installation of the Sprinkler Heads. Otherwise, residues of flux may cause corrosion and leakage in the sprinkler system.

Hydraulic Design Criteria

The minimum required sprinkler flow rates for system designed to NFPA 13D or 13R are given in Table A as a function of temperature rating and the maximum allowable coverage areas. The sprinkler flow rate is the minimum required discharge from the most hydraulically demanding sprinkler from each of the total number of "design sprinklers" as specified in NFPA 13D or 13R.

For systems designed to NFPA 13, the number of designed sprinklers is to be the four most hydraulically demanding sprinklers. The minimum required discharge from each of the four sprinklers is to be the greater of the followings;

- The flow rates given in Table A for NFPA 13D and 13R as a function of temperature rating and maximum allowable coverage area.
- A minimum discharge 0.1GPM/sq.ft. [4.07(L/min)/ sq.m] over the "design area" comprised of the four most hydraulically demanding sprinklers for the actual coverage areas being protected by the four sprinklers.

TABLE A. NFPA 13D & 13R WET PIPE HYDRAULIC DESIGN CRITERIA for Model SS8461

Maximum Coverage Area ^(a) Ft. x Ft. (m x m)	Maximum Spacing Ft. (m)	Ordinary Temperature Rating 162°F (72°C)		Intermediate Temperature Rating 175°F (79°C)		Deflector to Ceiling	Installation Type	Minimum Spacing Ft. (m)
		Flow ^(b) GPM (L/min)	Pressure ^(b) PSI (bar)	Flow ^(b) GPM (L/min)	Pressure ^(b) PSI (bar)			
12x12 (3.7x3.7)	12 (3.7)	13 (49.2)	7.0 (0.48)	13 (49.2)	7.0 (0.48)	Smooth Ceilings 3/8 to 7/8 Inches. Beamed Ceilings per NFPA 13D,13R or 13 Installed in beam 3/8 to 7/8 inches below bottom of beam.	Concealed	9 (2.7)
14x14 (4.3x4.3)	14 (4.3)	13 (49.2)	7.0 (0.48)	14 (53.0)	8.2 (0.57)			
16x16 (4.9x4.9)	16 (4.9)	13 (49.2)	7.0 (0.48)	14 (53.0)	8.2 (0.57)			
18x18 (5.5x5.5)	18 (5.5)	18 (68.1)	13.5 (0.93)	—	—			
20x20 (6.1x6.1)	20 (6.1)	21 (79.5)	18.4 (1.27)	—	—			

- (a) For coverage area dimensions less than the above mentioned, it needs to use the minimum required flow for the Next Higher Coverage Area listed.
- (b) Requirement is based on minimum flow in GPM/LPM from each sprinkler. The associated residual pressures are calculated using the nominal K-Factor. Refer to Hydraulic Design Criteria Section for details.
- (c) For systems with ceiling types smooth flat horizontal, or beamed, or sloped, in accordance with the 2013 Edition of NFPA 13D, 13R or 13 as applicable.

Sprinkler Spacing Criteria

The minimum spacing between sprinklers is 9 feet (2.7m). The maximum spacing between sprinklers cannot go beyond the coverage area calculated by using the specific hydraulic factors. (Ref. Table A)

INSTALLATION

The Model RC-RES must be installed in accordance with the following instructions.

NOTES

Do not use any sprinklers which have been subjected to potential mechanical damage. Do not use any sprinklers which show deformation or cracking in either the Sprinkler or the Protective Cap.

Prior to installation, sprinklers should be maintained in the original cartons and packaging until used to minimize the potential for damage to sprinklers that would cause improper operation or non-operation.

The Protective Cap must remain on the sprinkler during installation and until the ceiling installation is completed. The Protective Cap must be removed to place the sprinkler in service.

Use a torque of 7 to 14 ft.lbs (9.5 to 19.0Nm) to achieve a 1/2 inch NPT sprinkler joint. A maximum of 21 ft.lbs. (28.5 Nm) of torque is to be used to install sprinklers. If you exceed the recommended maximum torque, this could result in damage to the sprinkler inlet, which may lead to leakage from the sprinkler.

In case of insufficient adjustment in Cover Plate installation, do not try to overly tighten, screw the sprinkler too loosely or make any modification to the cover plate assembly. Readjust the sprinkler fitting for a better fit.

Installing Procedure

Step 1

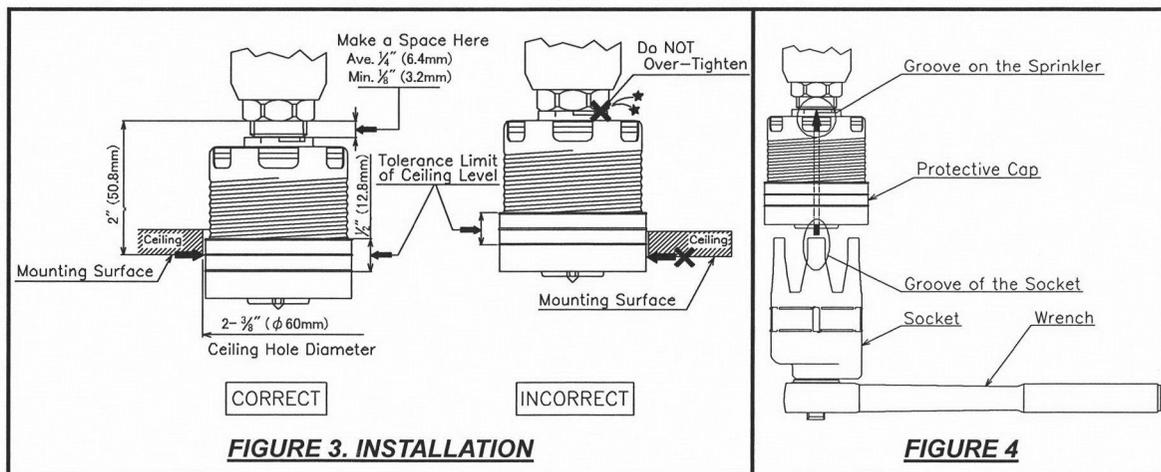
The installation requirements for the sprinkler are as follows: to be installed only in the pendent position with the waterway perpendicular to the ceiling. Install the sprinkler fitting so that the distance from the face of the fitting to the mounting surface will be nominally 2 inch (50.8mm) as shown in Figure 3.

Step 2

With pipe thread sealant applied to the threads, hand tighten the sprinkler into the sprinkler fitting. Then tighten it with the Sprinkler Socket or Wrench & Socket Combination (Ref. Figure 4). The grooves of the Socket must fit perfectly with the grooves on the Sprinkler for proper installation (Ref. Figure 4).

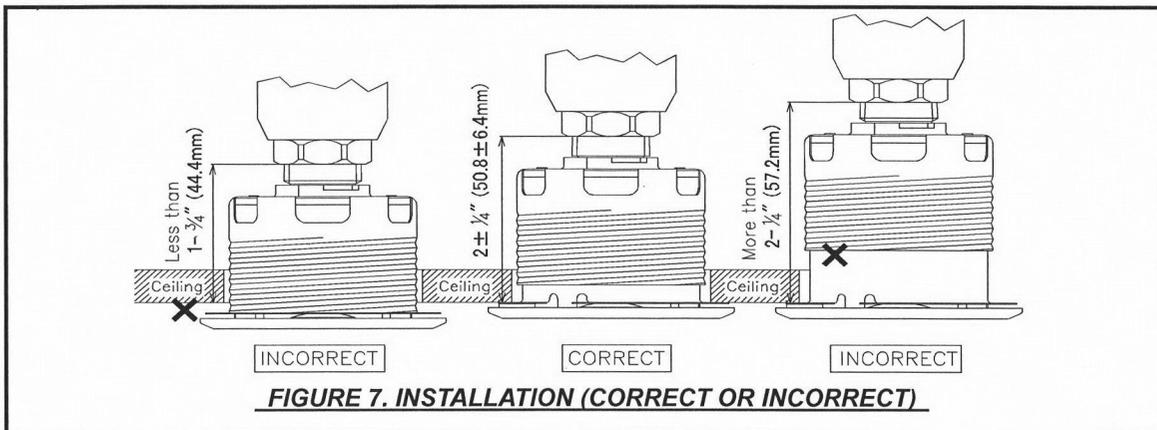
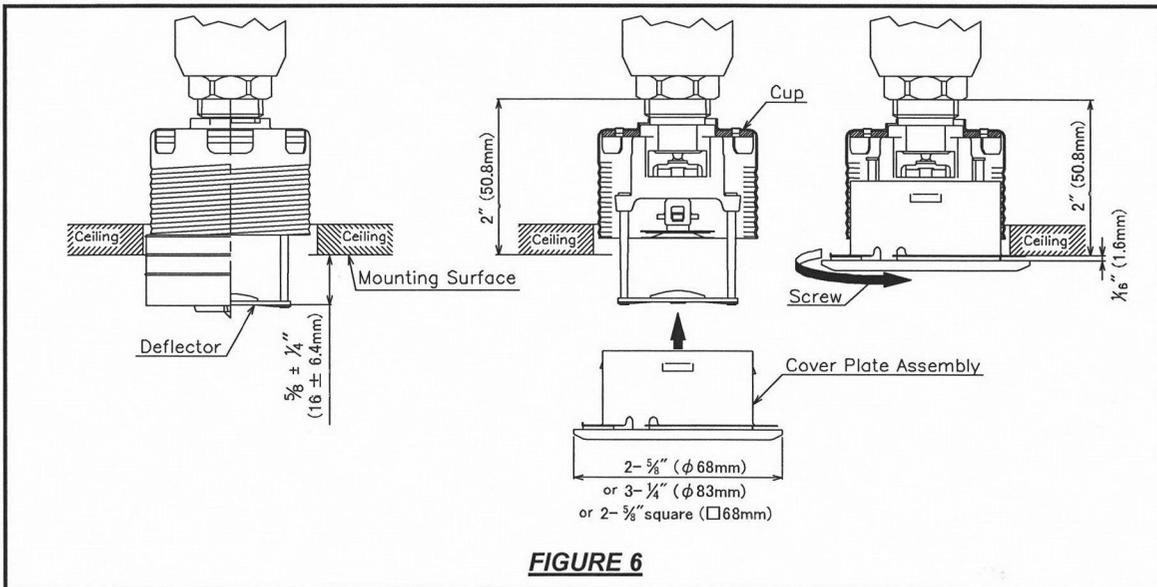
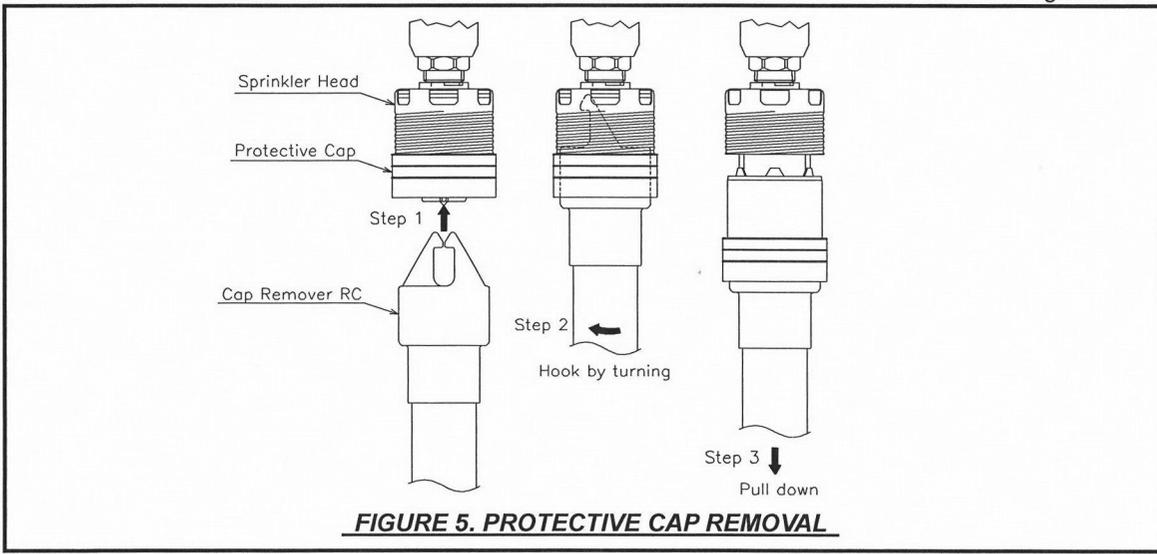
Step 3

If desired the Protective Cap may also be used to locate the center of the clearance hole by gently pushing the ceiling material against the center point of the Protective Cap. Before the installation of the ceiling, the sprinkler installation can be started with the 2-3/8 inch (60mm) diameter clearance hole (Ref. Figure 3). Use the "Tolerance Limit of Ceiling Level" indicator on the Protective Cap to check for proper installation height (Ref. Figure 3).



Step 4

Use the Cap Remover RC to remove the Protective Cap (Ref. Figure 5), and then push or screw a Cover Plate Assembly on the Cup of the Sprinkler by hand until its flange just comes in contact with the ceiling (Ref. Figure 6 and Figure 7). Stop tightening the Cover Plate Assembly once the flange has come in contact with the ceiling. If the ceiling has been lifted from its normal position in the process of tightening of the Cover Plate Assembly, readjust the cover plate assembly as necessary. If the flange of the Cover Plate Assembly cannot come in contact with the ceiling sufficiently, readjust the sprinkler fitting as necessary. When properly installed, there is a nominal 1/16 inch (1.6mm) air gap between the lip of the Cover Plate and the ceiling, as shown in Figure 6



CARE AND MAINTENANCE

The following instructions must be implemented for the maintenance and service of the Model RC-RES.

NOTES

Wet pipe sprinkler systems must be maintained at a minimum temperature of 40°F/4°C to prevent freezing and bursting of the pipe and/or sprinklers.

Automatic sprinklers are not to be tested with a heat source. Operation of the heat responsive element can result.

Absence of a Cover Plate Assembly may delay the response time of the sprinkler in case of fire.

Install the cover plate assembly properly, as shown in Figure 6. Improper installation of the cover plate assembly may cause improper operation or non-operation.

If the ceiling is to be repainted after the installation of the Sprinkler, care must be exercised to ensure that the new paint does not seal off any of the air gap.

Factory painted Cover Plates must not be repainted. They should be replaced, if necessary, by factory painted cover plates. Non-factory applied paint may adversely delay or prevent sprinkler operation in case of a fire.

Do not pull the Cover Plate. Separation may result.

In preparation for maintenance of the fire protection system, permission to close the main control valve must be obtained from the proper authorities and all affected by this action parties must be informed before the maintenance session can commence.

Do NOT enclose any sprinklers within drapes, curtains, or valances.

Do NOT hang anything from the sprinklers.

Do NOT clean the sprinklers with soap and water, detergents, ammonia, cleaning fluids, or other chemicals. Remove dust, lint, cobwebs, cocoons, insects, and larvae by gently brushing with a feather duster or gently vacuuming with a soft bristle (i.e., dusting) brush attachment.

Exercise suitable safety precautions in the use and storage of highly flammable materials. The rapid rate of fire development and spread of these materials can reduce the ability of the sprinkler systems to aid in the control of a fire involving such hazards.

Leaking or corroded sprinklers must be replaced.

Automatic Sprinklers must never be shipped or stored where the temperature exceeds 100°F / 38°C.

Automatic sprinkler must never be physically altered, such as painted, plated, or coated, once shipped from the factory. If the sprinklers have been in any way modified, they must be replaced.

Great caution must be applied to prevent damage to the sprinklers at all stages - before, during, and after installation. Damaged units, as a result of dropping, hitting, over-tightening, or wrench slippage, must be replaced.

The Model RC-RES must only be replaced with pendent sprinklers which are listed for residential fire protection service and which have the same nominal K-Factor, the same coverage area, and the same or lower flow ratings (as indicated under Table A "Hydraulic Design Criteria").

When remodeling, such as by adding false beams or light fixtures or changing the location of compartment walls, first verify that the new construction will not violate the installation requirements of the applicable standards of NFPA. Alter the new construction and/or the sprinkler system to suit the requirements of this document and the applicable NFPA regulations.

The owner is responsible for the maintenance of the sprinkler system, including inspection and testing, its compliance with this documents, as well as the standards of the National Fire Protection Association (e.g., NFPA 25), and the regulations of any other authorities having jurisdiction. The owner should direct any questions regarding the above rules and regulations to the installing contractors or the sprinkler manufacturer. It is recommended that automatic sprinkler systems be inspected, tested, and maintained by a qualified Inspection Service in accordance with NFPA 25.

ORDER PROCEDURE

When placing an order, please contact a local distributor with the following information (Model Name, Specify, Temp. and Finish).

Sprinkler:

Model: RC-RES

(SIN: SS8461, Residential Flat Concealed Sprinkler, Pendent, K4.9, Temperature: 162°F (72°C) or 175°F (79°C))

Cover Plate Assembly:

2-5/8 inch (φ 68mm) or 3-1/4 inch (φ 83mm) or 2-5/8 inch square (□68mm), Order Separately from Sprinkler

Model	Finish	White Painted	Ivory Painted	Nickel Plated	Any Color Painted ^{*1}
140°F (60°C) Cover Plate for RC-RES 162°F or 162°F (72°C) Cover Plate for RC-RES 175°F		○	○	○	○

*1: Choose one color of our acceptable color list. Regarding the color list information, please contact a local distributor.

Tools for Installation of Model: RC-RES

- Socket for Model RC-RES
- Wrench & Socket for Model RC-RES
- Cap Remover RC

Uponor AquaPEX® White

Submittal Information
Revision F: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

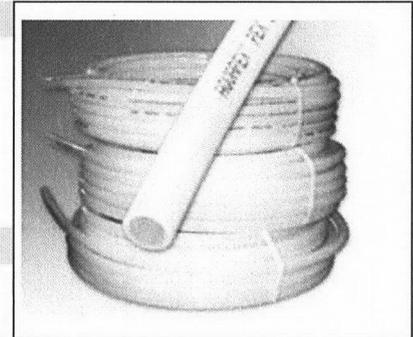
Approved By:

Technical Data

Material: Crosslinked polyethylene PEX-a Engel Method; PEX 5106

Standard Grade Hydrostatic Ratings (PPI): 200°F (93°C) at 80 psi (551 kPa)
180°F (82°C) at 100 psi (689 kPa)
73.4°F (23°C) at 160 psi (1,103 kPa)
½", ¾", 1", 1¼", 1½" and 2" Uponor AquaPEX® White only:
120°F (49°C) at 130 psi (896 kPa)

Linear Expansion Rate: 1.1"/10°F/100' (27.94mm/5.56°C/30.48m)



Product Information and Application Use

Uponor AquaPEX White is tubing used for hot and cold domestic potable water distribution, residential fire safety and radiant heating and cooling systems containing no ferrous corrodible components or where ferrous components are isolated from the tubing.

✓	Description	Part Number	I.D. (A)	O.D. (B)	Weight
<input type="checkbox"/>	¼" Uponor AquaPEX White, 100-ft. coil	F1040250	0.241"	0.375"	4.0 lbs.
<input type="checkbox"/>	¾" Uponor AquaPEX White, 400-ft. coil	F1090375	0.350"	0.500"	20.0 lbs.
<input type="checkbox"/>	¾" Uponor AquaPEX White, 1,000-ft. coil	F1120375	0.350"	0.500"	44.0 lbs.
<input type="checkbox"/>	½" Uponor AquaPEX White, 100-ft. coil*	F1040500	0.475"	0.625"	6.0 lbs.
<input type="checkbox"/>	½" Uponor AquaPEX White, 300-ft. coil*	F1060500	0.475"	0.625"	18.0 lbs.
<input type="checkbox"/>	½" Uponor AquaPEX White, 1,000-ft. coil*	F1120500	0.475"	0.625"	54.0 lbs.
<input type="checkbox"/>	⅝" Uponor AquaPEX White, 300-ft. coil	F1060625	0.574"	0.750"	28.0 lbs.
<input type="checkbox"/>	⅝" Uponor AquaPEX White, 1000-ft. coil	F1120625	0.574"	0.750"	86.0 lbs.
<input type="checkbox"/>	¾" Uponor AquaPEX White, 100-ft. coil*	F1040750	0.671"	0.875"	10.0 lbs.
<input type="checkbox"/>	¾" Uponor AquaPEX White, 300-ft. coil*	F1060750	0.671"	0.875"	34.0 lbs.
<input type="checkbox"/>	¾" Uponor AquaPEX White, 500-ft. coil*	F1100750	0.671"	0.875"	54.0 lbs.
<input type="checkbox"/>	1" Uponor AquaPEX White, 100-ft. coil*	F1041000	0.862"	1.125"	20.0 lbs.
<input type="checkbox"/>	1" Uponor AquaPEX White, 300-ft. coil*	F1061000	0.862"	1.125"	56.0 lbs.
<input type="checkbox"/>	1" Uponor AquaPEX White, 500-ft. coil*	F1101000	0.862"	1.125"	93.0 lbs.
<input type="checkbox"/>	1¼" Uponor AquaPEX White, 100-ft. coil*	F1061250	1.054"	1.375"	34.0 lbs.
<input type="checkbox"/>	1¼" Uponor AquaPEX White, 300-ft. coil*	F1021250	1.054"	1.375"	106.0 lbs.
<input type="checkbox"/>	1½" Uponor AquaPEX White, 100-ft. coil*	F1061500	1.244"	1.625"	44.0 lbs.
<input type="checkbox"/>	1½" Uponor AquaPEX White, 300-ft. coil*	F1021500	1.244"	1.625"	133.0 lbs.
<input type="checkbox"/>	2" Uponor AquaPEX White, 100-ft. coil*	F1062000	1.629"	2.125"	68.2 lbs.
<input type="checkbox"/>	2" Uponor AquaPEX White, 200-ft. coil*	F1052000	1.629"	2.125"	136.4 lbs.
<input type="checkbox"/>	2" Uponor AquaPEX White, 300-ft. coil*	F1022000	1.629"	2.125"	204.6 lbs.
<input type="checkbox"/>	3" Uponor AquaPEX White, 100-ft. coil	F1063000	2.400"	3.125"	128.0 lbs.
<input type="checkbox"/>	3" Uponor AquaPEX White, 350-ft. coil	F1023000	2.400"	3.125"	442.0 lbs.

Installation

Use ProPEX® fittings¹ for ¾" through 2" tubing. Use WIPEX™ fittings for 3" tubing. Refer to the Uponor Professional Plumbing Installation Guide, Radiant Floor Heating Installation Handbook or AquaSAFE™ Residential Fire Sprinkler Installation Guide for more information.

Standards

CSA B137.5; ASTM F876; ASTM F877; ASTM F1960; ASTM-E84; ASTM-E119/UL 263

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

*½", ¾", 1", 1¼", 1½" and 2" UL 1821; *ULC/ORD - C 199 P; IAPMO; CSA; HUD; WARNOCK HERSEY; NSF; ITS; UL; ICC; ANSI/NSF 14- and 61-certified; AWWA C904²; CAN/ULC S102.2 (U.S.: ¾" diameter and smaller; Canada: 1" diameter and smaller)

Related Applications

PEX-a Plumbing Systems
Radiant Heating and Cooling Systems
AquaSAFE Fire Safety Systems

Contact Information

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Apple Valley, MN 55124 USA
Phone: (800) 321-4739
Fax: (952) 891-2008
www.uponorpro.com

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Mississauga, ON L5N 1W1 CANADA
Phone: (888) 994-7726
Fax: (800) 638-9517
www.uponorpro.com

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

²This listing is for ¾" AquaPEX tubing and larger.

Print Stream on Tubing	Explanation
UPONOR AquaPEX	Brand Name
PEX 5106	ASTM F2023 Testing I/A/W ASTM F876
½ IN	Tubing Size (Example: ½")
SDR9	Standard Dimensional Ratio of 9
 B137.5 POTABLE	Potable Water Listing by CSA
UL1821 130PSI 120°F (49°C)	Rating I/A/W UL 1821 (½", ¾", 1", 1¼", 1½" and 2" only)
ULC-ORD C199P	Canadian Rating I/A/W UL1821 and C199P
 ASTM F876/F877/F2023	ASTM Tubing Standards Listed by NSF
ASTM F1960/F2080/F1807	ASTM Fitting Standards Listed by NSF
	IAPMO Reports 3558, 3960 v
ICC ESR-1099	ICC Evaluation Services Report ESR-1099
ICC ESR1529	ICC Evaluation Services Report ESR 1529
HUD MR1269d	HUD Material Release Report 1269d
WHI-LISTED CAN/US FS25/SD50	Warnock Hersey Listing for 25/50 Plenum Rating
160PSI 73.4°F (23°C)/100PSI 180°F (82°C)/80PSI 200°F (93°C)	Hydrostatic Ratings from PPI in Accordance with ASTM F876
UPONOR PEX-a TUBING	Type of Crosslinking (PEX-a)
UN04950127 ¹	Manufacturing Code to Audit Material Source
xxxxxx ²	Footage Marker in Increments of five feet

¹ USA, Material Type, Extruder No., Year, Month, Day

² Footage marking in increments of five feet

Table 1-1: Print Stream Identification

ProPEX Sprinkler Adapters and Fittings

Uponor offers sprinkler adapter fittings specifically designed for the AquaSAFE Fire Safety system. These fittings feature ProPEX connections and a standard ½" NPT outlet for connecting fire sprinklers.

Table 1-2 shows the required tubing length needed to approximate the equivalent pressure resistance of the different types of Uponor ProPEX fittings.

Equivalent Tubing Length

Fitting Type	Pipe Dimension (in)				
	¾	1	1¼	1½	2
EP Coupling	1	1	1	2	3
Brass Coupling	1	1	--	--	--
EP Elbow	11	12	11	13	18
Brass Elbow	5	6	--	--	--
EP Tee (Through)	2	2	4	2	1
EP Tee (Branch)	17	14	9	12	17
Brass Tee (Through)	1	1	--	--	--
Brass Tee (Branch)	6	6	--	--	--
Brass Sweat Adapter	3	3	4	5	6
Brass Male Thread Adapter	3	4	5	6	6
Brass Female Thread Adapter	3	4	5	6	6

Table 1-2: Pressure Resistance (Fittings/Tubing)

ProPEX Lead-free (LF) Brass Fire Sprinkler Adapter Tee

Submittal Information
Revision A: Nov. 20, 2009

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

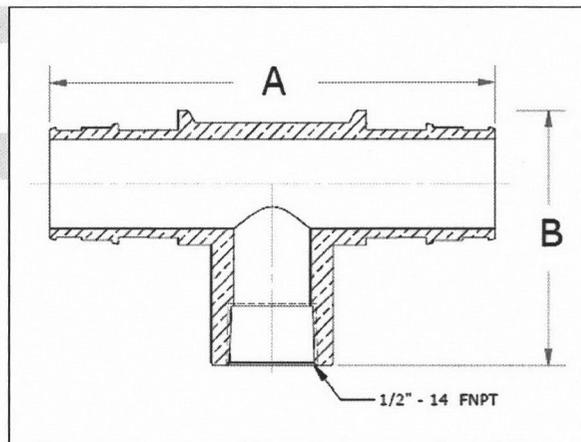
Approved By:

Technical Data

Material: C69300 Brass

Product Information and Application Use

Designed for use with 3/4" or 1" Uponor AquaPEX® tubing, the ProPEX® Lead-free Brass Fire Sprinkler Adapter Tee connects fire sprinklers to the Uponor residential AquaSAFE™ Looped multipurpose fire safety system, which combines fire sprinklers with a home's potable cold-water plumbing system. Use Uponor ProPEX fittings for the connections.



✓	Description	Part Number	A	B	Weight
<input type="checkbox"/>	ProPEX LF Brass Fire Sprinkler Adapter Tee, 1" PEX x 1" PEX x 1/2" FNPT	LF7701010	4.09"	2.325"	0.62 lbs.
<input type="checkbox"/>	ProPEX LF Brass Fire Sprinkler Adapter Tee, 3/4" PEX x 3/4" PEX x 1/2" FNPT	LF7707575	3.62"	2.325"	0.64 lbs.

Installation

Use the appropriate Uponor ProPEX Ring for the tubing. Install the tee using the Fire Sprinkler Adapter Mounting Bracket (A7750700) and Fire Sprinkler Adapter Push-on Nut (F7000005). For more information, refer to the Uponor AquaSAFE Looped System Installation Guide.

Related Products

A7750700: Fire Sprinkler Adapter Mounting Bracket, 3/4" and 1"
F7000005: Fire Sprinkler Adapter Push-on Nut

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960; UL 1821; ULC/ORD - C199P

Codes

IPC; UPC; NSPC; IRC; IMC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; ICC ESR 1099; HUD MR 1269; IAPMO

Related Applications

PEX-a Plumbing Systems
AquaSAFE Fire Safety Systems

Contact Information

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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

Fire Sprinkler Adapter Mounting Bracket

Submittal Information
Revision A: Nov. 17, 2009

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

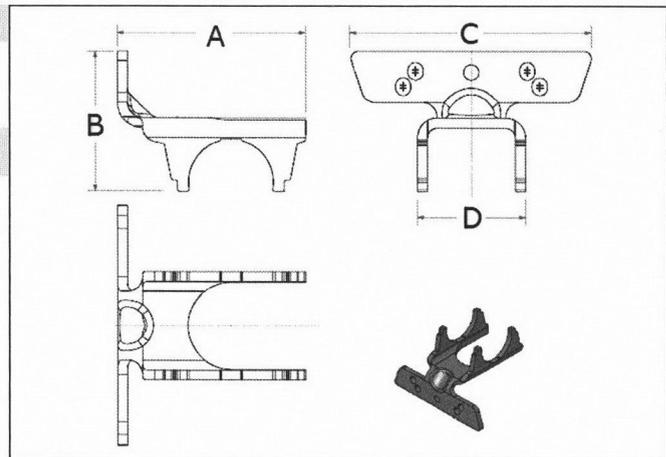
Approved By:

Technical Data

Material: 1050 Annealed (spheroidized) spring steel

Product Information and Application Use

Uponor's Fire Sprinkler Adapter Mounting Bracket is designed to rigidly mount ProPEX® Lead-free Brass Fire Sprinkler Adapter Tees (LF7701010 and LF7707575) in Uponor AquaSAFE™ multi-purpose residential fire sprinkler systems.¹



✓	Description	Part Number	A	B	C	D	Weight
<input type="checkbox"/>	Fire Sprinkler Adapter Mounting Bracket, 3/4" and 1"	A7750700	2.48"	1.84"	3.16"	1.42"	0.21 lbs.

Installation

Attach the sprinkler-mounting bracket or sprinkler adapter to the structure with two #10 x 1 1/2" Pan Head, Full Thread Screws (F7001500) or equivalent. Refer to the sprinkler plan mounting details for correct placement of brackets and adapters, taking into account the ceiling type and sprinkler model. When installing adapter tee into bracket, use Fire Sprinkler Adapter Push-on Nut (F7000005). For more information, refer to the Uponor AquaSAFE Looped System Installation Guide.

Related Products

LF7701010: ProPEX Brass Fire Adapter Tee, 1" PEX x 1" PEX x 1/2" FNPT
LF7707575: ProPEX Brass Fire Adapter Tee, 3/4" PEX x 3/4" PEX x 1/2" FNPT

Standards

UL1821; ULC/ORD - C199P (for use with brass sprinkler adapter tees)

Codes

N/A

Listings

N/A

Related Applications

PEX-a Plumbing Systems
AquaSAFE Fire Safety Systems

Contact Information

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Uponor Ltd.
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Fax: (800) 638-9517
www.uponor.ca

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

Tube Talon

Submittal Information
Revision B: Oct. 24, 2008

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

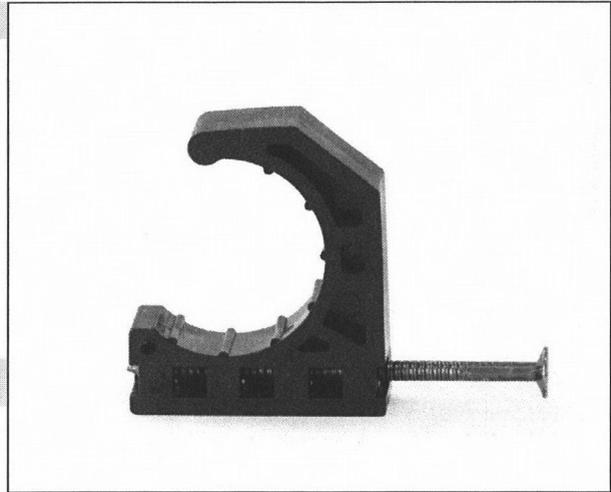
Submitted By:

Manufacturer's Representative:

Approved By:

Technical Data

Material: High-density polyethylene (HDPE)



Product Information and Application Use

Tube Talon secures 3/8", 1/2", 5/8", 3/4" and 1" Uponor PEX tubing products. Fasteners are included.

✓	Description	Part Number	Length	Width	Weight (Bag)
<input type="checkbox"/>	Tube Talon (3/8" PEX)	F7050375	1.75"	0.75"	0.63 lbs.
<input type="checkbox"/>	Tube Talon (1/2", 5/8", 3/4" PEX)	F7050750	2.00"	1.55"	1.60 lbs.
<input type="checkbox"/>	Tube Talon (1" PEX)	F7051000	2.38"	1.66"	1.10 lbs.

Installation

Mount the tube talon over the tubing and mounting surface. Attach the tube talon to desired surface with the nail provided. Refer to the Uponor Radiant Floor Installation Handbook or the Uponor Professional Plumbing Installation Guide for additional information.

Standards

N/A

Codes

N/A

Listings

N/A

Related Applications

Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems

Contact Information

Uponor, Inc.
5925 148th Street West
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Fax: (952) 891-2008
www.uponor-usa.com

Uponor Ltd.
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Mississauga, ON L5N 1W1 CANADA
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ProPEX® Engineered Polymer (EP) Tee

Submittal Information
Revision D: June 8, 2012

Project Information

Job Name:

Location:

Engineer:

Contractor:

Manufacturer's Representative:

Part No. Ordered:

Date Submitted:

Submitted By:

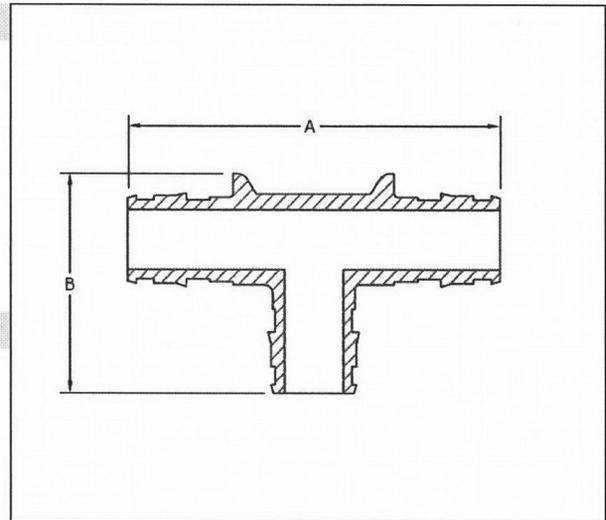
Approved By:

Technical Data

Material: UDEL® Polysulfone, 20% Glass-reinforced (½" to 1")
Acudel® Modified Polyphenylsulfone (1¼" to 1½")
Radel® Polyphenylsulfone (2")

Maximum Temperature
(no pressure): 320°F (160°C)

Maximum Working
Temperature/Pressure: 210°F (99°C) at 150 psi (1,034 kPa)



Product Information and Application Use

The ProPEX® Engineered Polymer (EP) Tee makes diverting connections for Uponor crosslinked polyethylene (PEX-a) tubing for use in hot and cold domestic potable water systems, residential fire sprinkler systems and hydronic radiant heating and cooling systems. Each end of the tee is manufactured with an Uponor ProPEX fitting for connections to Uponor AquaPEX® or Wirsbo hePEX™ tubing.¹

Note: Branch size is listed last in the part descriptions.

✓ Description	Part Number	A	B	Weight
<input type="checkbox"/> ProPEX EP Tee, ½" PEX x ½" PEX x ½" PEX	Q4755050	2.50"	1.53"	0.02 lbs.
<input type="checkbox"/> ProPEX EP Tee, ¾" PEX x ¾" PEX x ¾" PEX	Q4757575	3.30"	1.94"	0.05 lbs.
<input type="checkbox"/> ProPEX EP Tee, 1" PEX x 1" PEX x 1" PEX	Q4751010	4.10"	2.47"	0.07 lbs.
<input type="checkbox"/> ProPEX EP Tee, 1¼" PEX x 1¼" PEX x 1¼" PEX	Q4751313	4.80"	3.22"	0.15 lbs.
<input type="checkbox"/> ProPEX EP Tee, 1½" PEX x 1½" PEX x 1½" PEX	Q4751515	5.80"	3.82"	0.25 lbs.
<input type="checkbox"/> ProPEX EP Tee, 2" PEX x 2" PEX x 2" PEX	Q4752000	7.45"	4.79"	0.38 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAPMO 3558; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821; ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Hydronic Radiant Heating and Cooling Systems
Snow Melting Systems
Turf Conditioning Systems
Permafrost Prevention Systems
AquaSAFE Fire Safety Systems

Contact Information

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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Engineered Polymer (EP) Reducing Tee



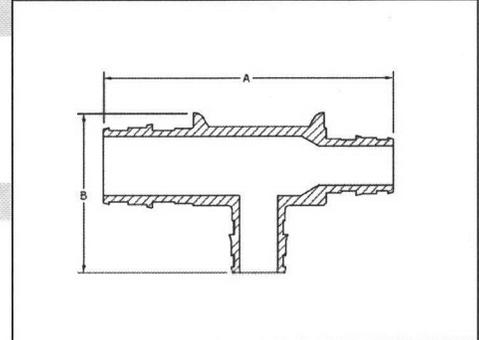
Submittal Information
Revision E: June 8, 2012

Project Information

Job Name:	
Location:	Part No. Ordered:
Engineer:	Date Submitted:
Contractor:	Submitted By:
Manufacturer's Representative:	Approved By:

Technical Data

Material:	UDEL® Polysulfone, 20% Glass-reinforced (½ to 1") Acudel® Modified Polyphenylsulfone (1¼" to 1½") Radel® R Polyphenylsulfone (2")
Maximum Temperature (no pressure):	320°F (160°C)
Max. Working Temperature/Pressure:	210°F (99°C) at 150 psi (1,034 kPa)



Product Information and Application Use

The ProPEX® Engineered Polymer (EP) Reducing Tee makes diverting connections for Uponor crosslinked polyethylene (PEX-a) tubing for use in hot and cold domestic potable water systems, residential fire sprinkler systems and hydronic radiant heating and cooling systems. Each end of the tee is manufactured with an Uponor ProPEX fitting for connections to Uponor AquaPEX® or Wirsbo hePEX™ tubing.¹ **Note:** Branch size is listed last in the part descriptions.

Description	Part Number	Length (A)	Height (B)	Weight
<input type="checkbox"/> ProPEX EP Reducing Tee, ½" PEX x ½" PEX x ¾" PEX	Q4755575	2.86"	1.76"	0.03 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, ¾" PEX x ½" PEX x ½" PEX	Q4757555	3.10"	1.70"	0.04 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, ¾" PEX x ½" PEX x ¾" PEX	Q4757557	3.10"	1.94"	0.04 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, ¾" PEX x ¾" PEX x ⅝" PEX	Q4757563	3.30"	1.85"	0.05 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, ¾" PEX x ¾" PEX x ½" PEX	Q4757550	3.30"	1.70"	0.04 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, ¾" PEX x ¾" PEX x 1" PEX	Q4757710	3.64"	2.32"	0.08 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1" PEX x ¾" PEX x ¾" PEX	Q4751775	3.90"	2.24"	0.08 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1" PEX x ¾" PEX x 1" PEX	Q4751751	3.90"	2.47"	0.08 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1" PEX x 1" PEX x ½" PEX	Q4751150	4.10"	2.00"	0.08 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1" PEX x 1" PEX x ¾" PEX	Q4751175	4.10"	2.24"	0.09 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1¼" PEX x 1" PEX x ¾" PEX	Q4751317	4.60"	2.73"	0.11 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1¼" PEX x 1" PEX x 1" PEX	Q4751311	4.60"	2.97"	0.12 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1¼" PEX x 1¼" PEX x ¾" PEX	Q4751337	4.80"	2.73"	0.13 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1¼" PEX x 1¼" PEX x 1" PEX	Q4751331	4.80"	2.97"	0.14 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1" PEX x ¾" PEX	Q4751517	5.25"	3.06"	0.17 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1" PEX x 1" PEX	Q4751511	5.25"	3.30"	0.18 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1¼" PEX x ¾" PEX	Q4751537	5.50"	2.65"	0.18 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1¼" PEX x 1" PEX	Q4751531	5.50"	2.85"	0.19 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1¼" PEX x 1¼" PEX	Q4751533	5.50"	3.15"	0.21 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1½" PEX x ¾" PEX	Q4751557	5.80"	3.06"	0.20 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1½" PEX x 1" PEX	Q4751551	5.75"	3.30"	0.21 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 1½" PEX x 1½" PEX x 1¼" PEX	Q4751553	5.80"	3.56"	0.22 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 1½" PEX x ¾" PEX	Q4752575	6.62"	3.30"	0.30 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 1½" PEX x 1" PEX	Q4752051	6.50"	3.40"	0.30 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 1½" PEX x 1¼" PEX	Q4752053	6.62"	3.80"	0.34 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 1½" PEX x 1½" PEX	Q4752055	6.62"	4.10"	0.35 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 2" PEX x ¾" PEX	Q4752275	6.93"	3.30"	0.34 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 2" PEX x 1" PEX	Q4752210	6.93"	3.40"	0.36 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 2" PEX x 1¼" PEX	Q4752213	6.62"	3.80"	0.37 lbs.
<input type="checkbox"/> ProPEX EP Reducing Tee, 2" PEX x 2" PEX x 1½" PEX	Q4752215	7.13"	4.10"	0.44 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards	Codes	Listings
CAN/CSA B137.5; ASTM F877; ASTM F1960	IPC; UPC; NSPC; NPC of Canada	NSF U.P. CODE; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821 and ULC/ORD-C199P (except Q4757563)

Related Applications

PEX-a Plumbing Systems
Hydronic Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Turf Conditioning Systems
Permafrost Protection Systems
AquaSAFE Fire Safety Systems

Contact Information

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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Engineered Polymer (EP) Elbow

Submittal Information
Revision D: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

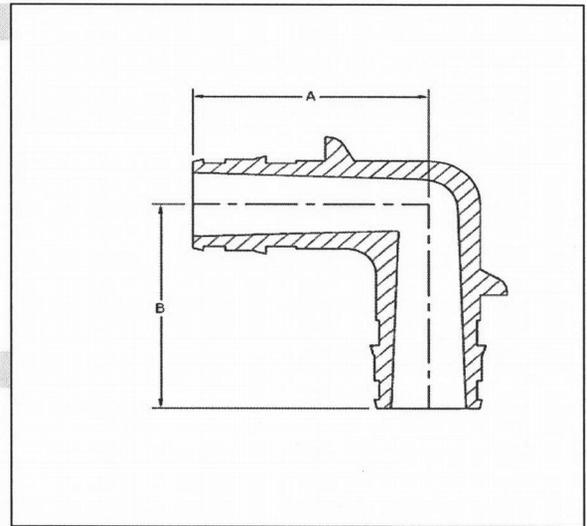
Approved By:

Technical Data

Material: UDEL® Polysulfone, 20% Glass-reinforced (½ to 1")
Acudel® Modified Polyphenylsulfone (1¼" to 1½")
Radel® R Polyphenylsulfone (2")

Maximum Temperature (no pressure): 320°F (160°C)

Maximum Working Temperature/Pressure: 210°F (99°C) at 150 psi (1,034 kPa)



Product Information and Application Use

The ProPEX® Engineered Polymer (EP) Elbow makes 90-degree connections for Uponor crosslinked polyethylene (PEX-a) tubing for use in hot and cold domestic potable water systems, residential fire safety and hydronic radiant heating and cooling systems. Each end of the elbow is manufactured with an Uponor ProPEX fitting for connections to Uponor AquaPEX® or Wirsbo hePEX™ tubing.¹

✓ Description	Part Number	A	B	Weight
<input type="checkbox"/> ProPEX EP Elbow, ½" PEX x ½" PEX	Q4760500	1.30"	1.30"	0.02 lbs.
<input type="checkbox"/> ProPEX EP Elbow, ¾" PEX x ¾" PEX	Q4760750	1.60"	1.60"	0.03 lbs.
<input type="checkbox"/> ProPEX EP Elbow, 1" PEX x 1" PEX	Q4761000	2.10"	2.10"	0.07 lbs.
<input type="checkbox"/> ProPEX EP Elbow, 1¼" PEX x 1¼" PEX	Q4761250	2.45"	2.45"	0.11 lbs.
<input type="checkbox"/> ProPEX EP Elbow, 1½" PEX x 1½" PEX	Q4761500	2.77"	2.77"	0.18 lbs.
<input type="checkbox"/> ProPEX EP Elbow, 2" PEX x 2" PEX	Q4762000	3.76"	3.76"	0.30 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAPMO 3558; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821; ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Hydronic Radiant Heating and Cooling Systems
Snow Melting Systems
Turf Conditioning Systems
Permafrost Prevention Systems
AquaSAFE Fire Safety Systems

Contact Information

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5925 148th Street West
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Fax: (952) 891-2008
www.uponorpro.com

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Fax: (800) 638-9517
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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Engineered Polymer (EP) Coupling

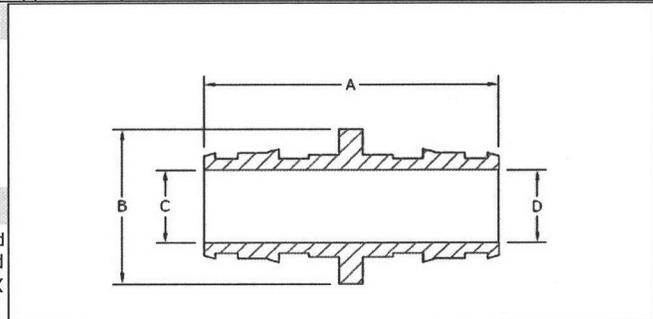
Submittal Information
Revision D: June 8, 2012

Project Information

Job Name: _____
 Location: _____ Part No. Ordered: _____
 Engineer: _____ Date Submitted: _____
 Contractor: _____ Submitted By: _____
 Manufacturer's Representative: _____ Approved By: _____

Technical Data

Material: UDEL® Polysulfone, 20% Glass-reinforced (3/8" - 1")
 Acudel® Modified Polyphenylsulfone (1/4" - 1 1/2")
 RADEL® R Polyphenylsulfone (2")
 Max. Temp. (no pressure): 320°F (160°C)
 Max. Working Temp./Pressure: 210°F (99°C) at 150 psi (1,034 kPa)



Product Information and Application Use

The ProPEX® Engineered Polymer (EP) Coupling is available for use in hot and cold domestic potable water distribution, residential fire safety and radiant heating and cooling systems. Each end of the coupling is manufactured with an Uponor ProPEX fitting for connections to Uponor AquaPEX® or Wirsbo hePEX™ tubing.

✓	Description	Part Number	A	B	C	D	Weight
<input type="checkbox"/>	ProPEX EP Coupling, 3/8" PEX x 3/8" PEX	Q4773838	1.300"	0.70"	0.615"	0.615"	0.01 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1/2" PEX x 1/2" PEX	Q4775050	1.600"	0.85"	0.405"	0.405"	0.01 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1/2" PEX x 3/4" PEX	Q4775075	1.800"	1.08"	0.405"	0.615"	0.03 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 5/8" PEX x 5/8" PEX	Q4776363	1.860"	1.00"	0.538"	0.538"	0.01 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 3/4" PEX x 3/4" PEX	Q4777575	2.000"	1.18"	0.615"	0.615"	0.02 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 3/4" PEX x 1" PEX	Q4777510	2.300"	1.34"	0.615"	0.818"	0.04 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1" PEX x 1" PEX	Q4771010	2.500"	1.42"	0.818"	0.818"	0.04 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/4" PEX x 3/4" PEX	Q4771307	2.625"	1.75"	0.989"	0.615"	0.05 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/4" PEX x 1" PEX	Q4771310	2.875"	1.75"	0.989"	0.818"	0.06 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/4" PEX x 1 1/4" PEX	Q4771313	3.000"	1.75"	0.989"	0.989"	0.07 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/2" PEX x 3/4" PEX	Q4771507	2.875"	2.13"	1.109"	0.615"	0.07 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/2" PEX x 1" PEX	Q4771510	3.125"	2.13"	1.109"	0.818"	0.08 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/2" PEX x 1 1/4" PEX	Q4771513	3.500"	2.13"	1.109"	0.989"	0.09 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 1 1/2" PEX x 1 1/2" PEX	Q4771515	3.625"	2.13"	1.109"	1.109"	0.10 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 2" PEX x 1 1/2" PEX	Q4772015	4.120"	2.20"	1.514"	1.109"	0.19 lbs.
<input type="checkbox"/>	ProPEX EP Coupling, 2" PEX x 2" PEX	Q4772020	4.544"	2.20"	1.514"	1.514"	0.24 lbs.

Installation

Use ProPEX Rings to make the fitting. Refer to the Uponor Professional Plumbing Installation Guide, Radiant Floor Heating Installation Handbook or AquaSAFE™ Residential Fire Sprinkler Installation Guide for more information.

Standards	Codes	Listings
CAN/CSA B137.5; ASTM F877; ASTM F1960	IPC; UPC; NSPC; NPC of Canada	NSF U.P. CODE; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821 and ULC/ORD-C199P (except Q4773838 and Q4776363)

Related Applications

PEX-a Plumbing Systems
 Hydronic Radiant Heating and Cooling Systems
 Snow and Ice Melting Systems
 Permafrost Protection Systems
 Turf Conditioning Systems
 AquaSAFE Fire Safety Systems

Contact Information

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ProPEX® Engineered Plastic (EP) Plug

Submittal Information
Revision C: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

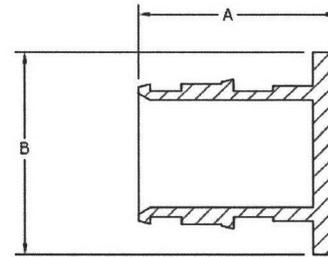
Approved By:

Technical Data

Material: UDEL® Polysulfone, 20% Glass-reinforced (½" - 1");
Acudel® modified polyphenylsulfone (1¼" - 2")

Maximum Temperature
(no pressure): 320°F (160°C)

Maximum Working
Temperature/Pressure: 210°F (99°C) at 150 psi (1,034 kPa)



Product Information and Application Use

ProPEX® Engineered Plastic (EP) Plugs terminate Uponor crosslinked polyethylene (PEX-a) tubing ends and are available for use in hot and cold domestic potable water systems, residential fire sprinkler systems and hydronic heating and cooling systems.¹

✓ Description	Part Number	A	B	Weight
<input type="checkbox"/> ProPEX EP Plug for ½" PEX	Q4350500	0.85"	0.836"	0.006 lbs.
<input type="checkbox"/> ProPEX EP Plug for ¾" PEX	Q4350750	0.85"	0.836"	0.008 lbs.
<input type="checkbox"/> ProPEX EP Plug for 1" PEX	Q4351000	1.08"	1.187"	0.020 lbs.
<input type="checkbox"/> ProPEX EP Plug for 1¼" PEX	Q4351250	1.32"	1.350"	0.040 lbs.
<input type="checkbox"/> ProPEX EP Plug for 1½" PEX	Q4351500	2.00"	2.125"	0.075 lbs.
<input type="checkbox"/> ProPEX EP Plug for 2" PEX	Q4352000	2.40"	2.625"	0.156 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAPMO 3558; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821; ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Hydronic Radiant Heating and Cooling Systems
Snow Melting Systems
Turf Conditioning Systems
Permafrost Prevention Systems
AquaSAFE Fire Safety Systems

Contact Information

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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Ring

Submittal Information
Revision D: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

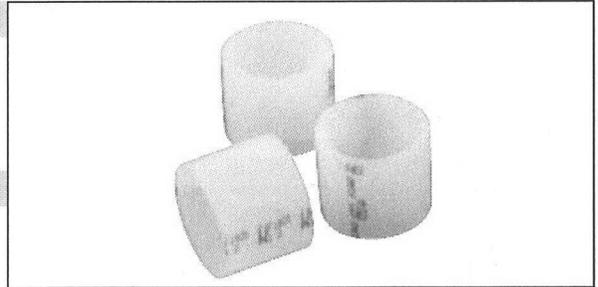
Approved By:

Technical Data

Material: Engel-method Crosslinked Polyethylene (PEX-a)

Density: 926 to 940 kg/m³

Degree of crosslinking: 70% to 89%



Product Information and Application Use

Manufactured from PEX-a material, Uponor ProPEX® Rings are required to make a proper ProPEX connection.¹ The ProPEX Ring with Stop includes a leading edge chamfer and stop edge.

✓ Description	Part Number	Length	I.D.	O.D.	Weight
<input type="checkbox"/> ProPEX Ring, 3/8"	Q4690302	0.54"	0.49"	0.74"	0.005 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 1/2"	Q4690512	0.63"	0.63"	0.87"	0.006 lbs.
<input type="checkbox"/> ProPEX Ring, 5/8"	Q4680625	0.79"	0.75"	1.00"	0.008 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 3/4"	Q4690756	0.87"	0.88"	1.13"	0.012 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 1"	Q4691000	1.10"	1.13"	1.42"	0.020 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 1 1/4"	Q4691250	1.35"	1.38"	1.66"	0.030 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 1 1/2"	Q4691500	1.61"	1.63"	1.91"	0.040 lbs.
<input type="checkbox"/> ProPEX Ring with Stop, 2"	Q4692000	1.97"	2.14"	2.61"	0.133 lbs.

Installation

Square cut the Uponor ProPEX tubing. Remove excess material. Slide the ProPEX Ring over the end of the tubing (maximum 1/16" over-hang for rings without stop). When using the ProPEX Ring with Stop, slide the ring on the tubing with the chamfered edge first until the end of the tubing contacts the stop edge. Expand the tubing and ring. If using the ProPEX Manual Expander Tool, rotate the tool a quarter turn after each expansion to prevent the formation of grooves. Remove the expansion tool and fully seat the tubing and ring against the shoulder of the fitting. Make ProPEX connections at temperatures above 5°F/-15°C. For more information, refer to the AquaPEX® Professional Plumbing Installation Handbook, the AquaSAFE™ Fire Safety Installation Guide or the Uponor Radiant Installation Handbook.

Standards

ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

1/2", 3/4", 1", 1 1/4", 1 1/2" and 2" UL 1821 and ULC/ORD-C199P; HUD MR 1269; ICC ESR 1099; ANSI/NSF 14- and 61-certified

Related Applications

PEX-a Plumbing Systems
Radiant Heating and Cooling Systems
AquaSAFE Fire Safety Systems

Contact Information

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5925 148th Street West
Apple Valley, MN 55124 USA
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Uponor Ltd.
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www.uponor.ca

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Lead-free (LF) Brass Sweat Adapter

Submittal Information
Revision B: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

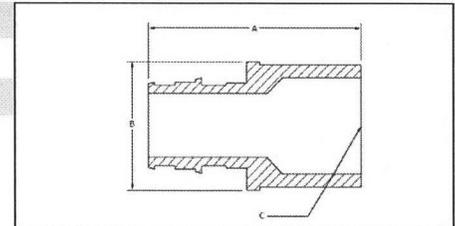
Approved By:

Technical Data

Material: C69300 Brass

Product Information and Application Use

ProPEX® Lead-free Brass Sweat Adapters transition Uponor PEX tubing to copper pipe for use in hot and cold domestic potable water systems, residential fire safety and hydronic radiant heating and cooling systems.¹ These adapters are safe for direct burial in soil.



✓	Description	Part Number	A	B	C	Weight
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 3/8" PEX x 1/2" Copper	LF4513850	1.32"	0.721"	0.50" CU	0.08 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 1/2" PEX x 1/2" Copper	LF4515050	1.44"	0.750"	0.50" CU	0.08 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 1/2" PEX x 3/4" Copper	LF4515075	1.63"	0.989"	0.75" CU	0.16 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 3/4" PEX x 1/2" Copper	LF4517550	1.67"	1.070"	0.50" CU	0.16 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 3/4" PEX x 3/4" Copper*	LF4517575	2.04"	1.070"	0.75" CU	0.30 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 3/4" PEX x 1" Copper	LF4517510	2.17"	1.258"	1.00" CU	0.31 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 1" PEX x 1" Copper*	LF4511010	2.40"	1.345"	1.00" CU	0.30 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 1 1/4" PEX x 1 1/4" Copper*	LF4511313	2.63"	1.640"	1.25" CU	0.50 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 1 1/2" PEX x 1 1/2" Copper*	LF4511515	2.75"	1.875"	1.50" CU	0.50 lbs.
<input type="checkbox"/>	ProPEX LF Brass Sweat Adapter, 2" PEX x 2" Copper*	LF4512020	3.53"	3.00"	2.00" CU	2.00 lbs.

Installation

Use the appropriate Uponor ProPEX Ring for the tubing (sold separately). Do not solder within 18 inches of the ProPEX Fitting. Refer to the AquaPEX® Professional Plumbing Installation Guide, Radiant Floor Heating Installation Handbook or AquaSAFE™ Residential Fire Sprinkler Installation Guide for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

HUD MR 1269; ICC ESR 1099; ANSI/NSF 14- and 61-certified; U.P. Code, Annex G; *UL 1821; *ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems
AquaSAFE Fire Safety Systems

Contact Information

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www.uponorpro.com

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Lead-free (LF) Brass Female Threaded Adapter

Submittal Information
Revision B: June 8, 2012

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

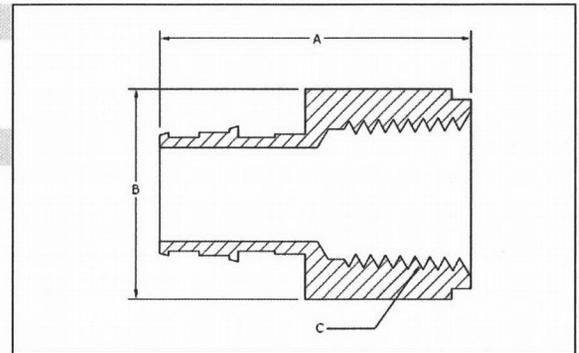
Approved By:

Technical Data

Material: C69300 Brass

Product Information and Application Use

The ProPEX® Lead-free Brass Female Threaded Adapter connects Uponor PEX-a tubing to female NPT threads.¹ Use these fittings in hot and cold domestic potable water systems, residential fire sprinkler systems or hydronic radiant heating and cooling systems. One end of the adapter is manufactured with the Uponor ProPEX fitting for connections to Wirsbo hePEX™ tubing or Uponor AquaPEX® tubing. The other end of the adapter connects to copper. These adapters are safe for direct burial in soil.



✓	Description	Part Number	A	B	C	Weight
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, ½" PEX x ½" NPT	LF4575050	1.57"	1" HEX	½" NPT	0.20 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, ½" PEX x ¾" NPT	LF4575075	1.75"	1 ⅜" HEX	¾" NPT	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, ¾" PEX x ¾" NPT*	LF4577575	1.87"	1 ⅝" HEX	¾" NPT	0.20 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, ¾" PEX x 1" NPT	LF4577510	2.21"	1 ½" HEX	1" NPT	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, 1" PEX x 1" NPT*	LF4571010	2.44"	1 ½" HEX	1" NPT	0.45 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, 1 ¼" PEX x 1 ¼" NPT*	LF4571313	2.57"	2" HEX	1 ¼" NPT	1.00 lbs.
<input type="checkbox"/>	ProPEX LF Brass Female Threaded Adapter, 1 ½" PEX x 1 ½" NPT*	LF4571515	2.75"	2 ½" HEX	1 ½" NPT	2.20 lbs.
<input type="checkbox"/>	ProPEX Brass Female Threaded Adapter, 2" PEX x 2" NPT*	LF4572020	3.53"	3" HEX	2" NPT	2.20 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; ICC ESR 1099; HUD MR 1269; U.P. Code, Annex G; *UL 1821; *ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems
AquaSAFE Fire Safety Systems

Contact Information

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ProPEX® Lead-free (LF) Brass Male Threaded Adapter

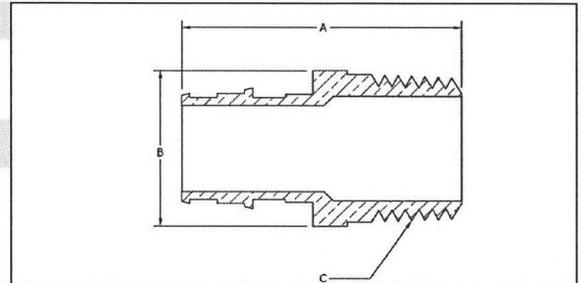
Submittal Information
Revision C: June 8, 2012

Project Information

Job Name:	
Location:	Part No. Ordered:
Engineer:	Date Submitted:
Contractor:	Submitted By:
Manufacturer's Representative:	Approved By:

Technical Data

Material: C69300 Brass



Product Information and Application Use

ProPEX® Lead-free (LF) Male Threaded Adapters connect Uponor PEX tubing to male NPT threads for use in hot and cold domestic potable water systems, residential fire safety and hydronic radiant heating and cooling systems.¹ These adapters are safe for direct burial in soil.

✓ Description	Part Number	A	B	C	Weight
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 3/8" PEX x 1/2" NPT	LF4523850	1.62"	7/8" HEX	1/2" NPT	0.11 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1/2" PEX x 1/2" NPT	LF4525050	1.73"	7/8" HEX	1/2" NPT	0.32 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1/2" PEX x 3/4" NPT	LF4525075	1.78"	1 1/8" HEX	3/4" NPT	0.18 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 3/4" PEX x 3/4" NPT*	LF4527575	2.02"	1 1/8" HEX	3/4" NPT	0.20 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 3/4" PEX x 1" NPT*	LF4527510	2.22"	1 3/8" HEX	1" NPT	0.35 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1" PEX x 3/4" NPT	LF4521075	2.25"	1 1/4" HEX	3/4" NPT	0.30 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1" PEX x 1" NPT*	LF4521010	2.46"	1 3/8" HEX	1" NPT	0.44 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1 1/4" PEX x 1 1/4" NPT*	LF4521313	2.72"	1 3/4" HEX	1 1/4" NPT	0.75 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 1 1/2" PEX x 1 1/2" NPT*	LF4521515	3.00"	2 1/4" HEX	1 1/2" NPT	0.80 lbs.
<input type="checkbox"/> ProPEX LF Brass Male Threaded Adapter, 2" PEX x 2" NPT*	LF4522020	3.86"	2 3/8" HEX	2" NPT	1.90 lbs.

Installation

Use the appropriate ProPEX Ring for PEX-a tubing. Refer to the Uponor AquaPEX® Professional Plumbing Installation Guide, AquaSAFE™ Residential Fire Sprinkler Installation Guide or Uponor Radiant Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; IAPMO 3558; U.P. Code, Annex G; *UL 1821; *ULC/ORD-C199P

Related Applications

PEX-a Plumbing Systems
Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems
AquaSAFE Fire Safety Systems

Contact Information

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www.uponorpro.com

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www.uponorpro.com

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Lead-free (LF) Brass Coupling

Submittal Information
Revision A: Jan. 28, 2010

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

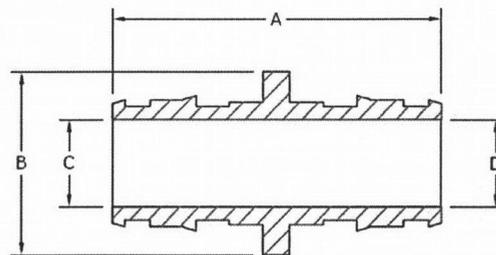
Approved By:

Technical Data

Material C69300 Brass

Product Information and Application Use

ProPEX® Lead-free Brass Couplings are available for use in hot and cold domestic potable water systems.¹ Also approved for use in any radiant heating system. The coupling features the Uponor ProPEX Fitting for connections to Wirsbo hePEX™ tubing or Uponor AquaPEX® tubing. Couplings are safe for direct burial in soil.



✓ Description	Part Number	A	B	C	D	Weight
<input type="checkbox"/> ProPEX LF Brass Coupling, 3/8" PEX x 1/2" PEX	LF4543850	1.42"	0.740"	0.398"	0.280"	0.05 lb
<input type="checkbox"/> ProPEX LF Brass Coupling, 1/2" PEX x 1/2" PEX*	LF4545050	1.54"	0.740"	0.398"	N/A	0.07 lb
<input type="checkbox"/> ProPEX LF Brass Coupling, 3/4" PEX x 3/4" PEX*	LF4547575	2.02"	1.187"	0.595"	N/A	0.13 lb
<input type="checkbox"/> ProPEX LF Brass Coupling, 3/4" PEX x 1" PEX*	LF4547510	2.25"	1.345"	0.795"	0.595"	0.16 lb
<input type="checkbox"/> ProPEX LF Brass Coupling, 1" PEX x 1" PEX*	LF4541010	2.49"	1.345"	0.818"	N/A	0.20 lb

Installation

ProPEX Tool and ProPEX Rings (sold separately) are required for connecting the PEX tubing. Use the appropriately sized Uponor ProPEX Ring for tubing connections. For more information, refer to the AquaPEX Professional Plumbing Installation Guide, the AquaSAFE™ Residential Fire Sprinkler Installation Guide or the Radiant Floor Heating Installation Handbook.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAMPO 3558; HUD MR 1269; ICC ESR 1099; NSF 14- and 61-certified; U.P. Code, Annex G; *UL 1821; *ULC/ORD C199P

Related Applications

PEX-a Plumbing Systems
Uponor Residential Fire Safety Systems
Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems

Contact Information

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¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Brass Elbow

Submittal Information
Revision B: March 17, 2009

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

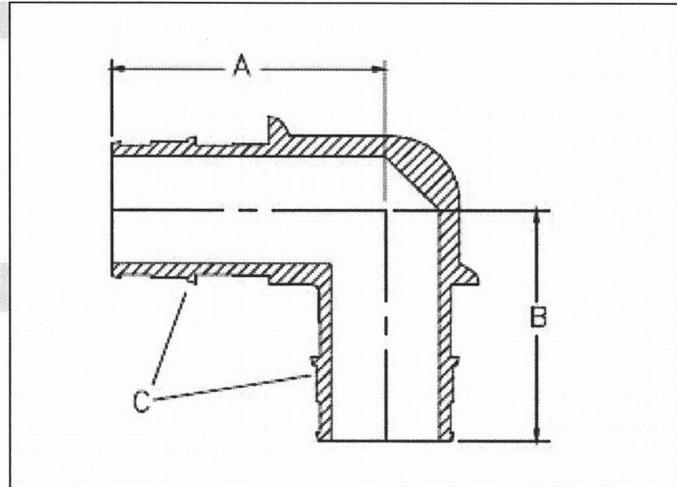
Submitted By:

Manufacturer's Representative:

Approved By:

Technical Data

Material: B16 Copper Alloy UNS C36000



Product Information and Application Use

The brass ProPEX® Elbow is available for use in hot and cold domestic potable water systems, and in the AQUASAFE® Residential Fire Safety systems. Also approved for use in any hydronic heating and AquaPEX® plumbing systems, each end of the elbow is manufactured with the ProPEX fitting for connections to hePEX™ or any AquaPEX tubing.

✓	Description	Part Number	A	B	C	Weight
<input type="checkbox"/>	ProPEX Brass Elbow, 1/2" PEX x 1/2" PEX*	Q4710500	1.45"	1.48"	0.500"	0.10 lbs.
<input type="checkbox"/>	ProPEX Brass Elbow, 5/8" PEX x 5/8" PEX	Q4710625	1.77"	1.57"	0.625"	0.15 lbs.
<input type="checkbox"/>	ProPEX Brass Elbow, 3/4" PEX x 3/4" PEX*	Q4710750	2.04"	1.75"	0.750"	0.20 lbs.
<input type="checkbox"/>	ProPEX Brass Elbow, 1" PEX x 1" PEX*	Q4711000	2.61"	2.28"	1.000"	0.30 lbs.
<input type="checkbox"/>	ProPEX Brass Elbow, 2" PEX x 2" PEX	Q4712000	4.66"	4.36"	2.000"	2.20 lbs.

Installation

Use appropriate ProPEX Ring for connecting the tubing. Refer to the AquaPEX Installation Handbook, the Radiant Floor Installation Handbook or the Uponor AQUASAFE® Installation Guide for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F 1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; U.P. Code; ICC ESR 1099; HUD MR 1269; *UL 1821; *ULC/ORD C199P

Related Applications

PEX-a Plumbing Systems
AQUASAFE Fire Safety Systems
Uponor Radiant Floor heating Systems

Contact Information

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Phone: (888) 994-7726
Fax: (800) 638-9517
www.uponor.ca

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Lead-free (LF) Brass Tee

Submittal Information
Revision B: Jan. 28, 2010

Project Information

Job Name:

Location:

Engineer:

Contractor:

Manufacturer's Representative:

Part No. Ordered:

Date Submitted:

Submitted By:

Approved By:

Technical Data

Material: C69300 Brass

Product Information and Application Use

Uponor's ProPEX® Lead-free Brass Tees are ideal for use in hot and cold domestic potable water systems.¹

This product is approved for use in the AquaSAFE™ Residential Fire Safety System. Also approved for any hydronic heating system application.

Each end of the ProPEX LF Brass Tee is manufactured with the Uponor ProPEX Fitting for connections to Wirsbo hePEX™ or Uponor AquaPEX® tubing. This product is safe for direct burial in soil.



✓	Description	Part Number	Length	Width	Weight
<input type="checkbox"/>	ProPEX LF Brass Tee, ½" PEX x ½" PEX x ½" PEX	LF4705050	2.52"	1.45"	0.20 lbs.
<input type="checkbox"/>	ProPEX LF Brass Tee, ¾" PEX x ¾" PEX x ¾" PEX	LF4707575	3.27"	1.93"	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Tee, 1" PEX x 1" PEX x 1" PEX	LF4701010	4.09"	2.42"	0.40 lbs.

Installation

ProPEX Tool and ProPEX Rings (sold separately) are required for connecting the PEX tubing. Do not solder within 18 inches of the ProPEX connection. Refer to the AquaPEX Professional Plumbing Installation Guide, AquaSAFE Homeowner Handbook or Radiant Floor Heating Installation Handbook for additional information.

Standards

CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAPMO 3558; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821; ULC/ORD C 199P; U.P. Code, Annex G

Related Applications

PEX-a Plumbing Systems
Uponor Residential Fire Safety Systems
Radiant Heating and Cooling Systems

Contact Information

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ProPEX® Lead-free (LF) Brass Reducing Tee

Submittal Information
Revision B: Jan. 28, 2010

Project Information

Job Name: _____

Location: _____

Part No. Ordered: _____

Engineer: _____

Date Submitted: _____

Contractor: _____

Submitted By: _____

Manufacturer's Representative: _____

Approved By: _____

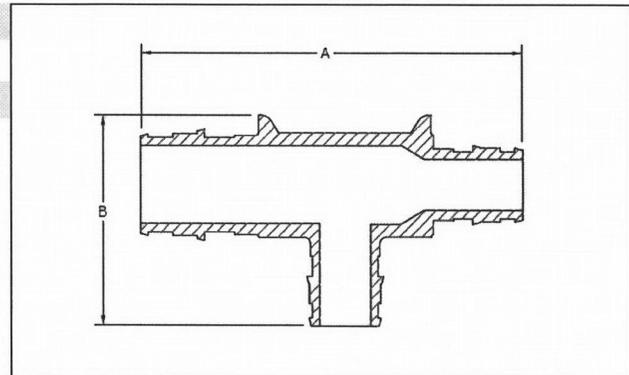
Technical Data

Material: C69300 Brass

Product Information and Application Use

Uponor's ProPEX® LF Brass Reducing Tee makes diverting connections for Uponor PEX tubing in supply and return mains.¹ This product is available for use in hot and cold domestic potable water systems, in any hydronic heating system and in the AquaSAFE™ Residential Fire Safety System. Uponor manufactures each end of the tee with the ProPEX Fitting for easy connections to Wirsbo hePEX™ or Uponor AquaPEX® tubing. This product is safe for direct burial in soil.

Note: Branch size is listed last in the part description.



✓	Description	Part Number	A	B	Weight
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, ¾" PEX x ¾" PEX x ½" PEX	LF4707550	3.27"	1.69"	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, ¾" PEX x ¾" PEX x 1" PEX	LF4707710	3.62"	2.42"	0.50 lbs.
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, 1" PEX x ¾" PEX x ¾" PEX	LF4701775	3.86"	2.18"	0.30 lbs.
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, 1" PEX x ¾" PEX x 1" PEX	LF4701751	3.86"	2.42"	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, 1" PEX x 1" PEX x ½" PEX	LF4701150	4.09"	1.95"	0.40 lbs.
<input type="checkbox"/>	ProPEX LF Brass Reducing Tee, 1" PEX x 1" PEX x ¾" PEX	LF4701175	4.09"	2.18"	0.40 lbs.

Installation

ProPEX Tool and ProPEX Rings (sold separately) are required for connecting PEX tubing. Refer to the AquaPEX Professional Plumbing Installation Guide, the AquaSAFE Residential Fire Sprinkler Installation Guide or the Radiant Floor Heating Installation Handbook for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

IAPMO 3558; ANSI/NSF 14- and 61-certified; HUD MR 1269; ICC ESR 1099; UL 1821; ULC/ORD C 199P; U.P. Code, Annex G

Related Applications

PEX-a Plumbing Systems
Uponor Residential Fire Safety Systems
Radiant Heating and Cooling Systems
Snow and Ice Melting Systems
Permafrost Protection Systems
Turf Conditioning Systems

Contact Information

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ProPEX® Fire Sprinkler Adapter

Submittal Information
Revision B: March 17, 2009

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

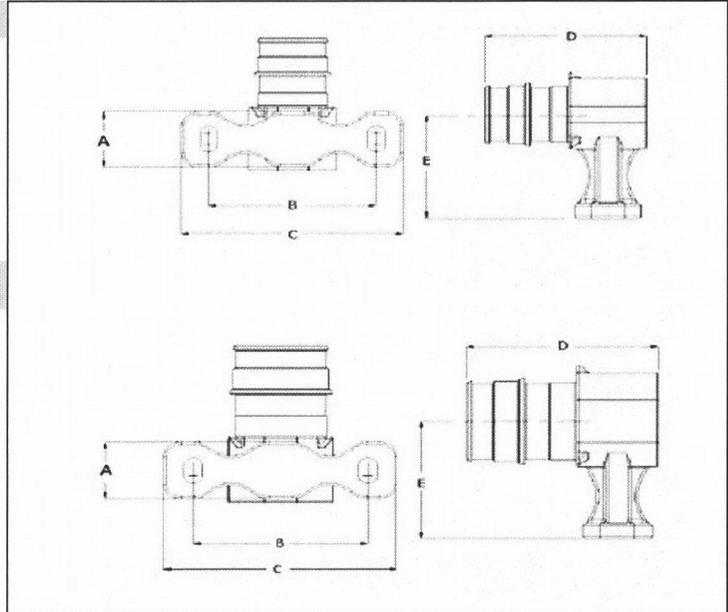
Submitted By:

Manufacturer's Representative:

Approved By:

Technical Data

Material: 300 Series Stainless Steel



Product Information and Application Use

Use the ProPEX® Fire Sprinkler Adapter in conjunction with the appropriate sprinkler to provide a multi-purpose residential fire sprinkler system¹. For residential applications, the system is installed with the cold-potable portion of the Uponor plumbing system. Make connections with Uponor ProPEX fittings. These fittings are designed for use only with 3/4" or 1" AquaPEX® White tubing in the Uponor AQUASAFE® Looped System.

✓ Description	Part Number	A	B	C	D	E	Weight
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter, 3/4" PEX x 1/2" FNPT	Q7517550	0.75"	1.88"	2.50"	1.82"	1.41"	0.268 lbs.
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter, 1" PEX x 1/2" FNPT	Q7511050	0.75"	1.88"	2.50"	2.06"	1.54"	0.408 lbs.

Installation

Use appropriate ProPEX Ring for connecting the tubing. Refer to the AquaPEX Installation Handbook or the Uponor AQUASAFE® Installation Guide for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F 1960

Codes

IPC; UPC; NSPC; IRC; IMC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; U.P. Code; ICC ESR 1099; HUD MR 1269; UL 1821; ULC/ORD - C 199 P

Related Applications

PEX-a Plumbing Systems
AQUASAFE Fire Safety Systems

Contact Information

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Fax: (952) 891-2008
www.uponor-usa.com

Uponor Ltd.
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www.uponor.ca

¹ProPEX® is a registered trademark of Uponor, Inc. ProPEX™ is a trademark of Uponor Ltd.

ProPEX® Fire Sprinkler Adapter Elbow

Submittal Information
Revision B: March 17, 2009

Project Information

Job Name:

Location:

Part No. Ordered:

Engineer:

Date Submitted:

Contractor:

Submitted By:

Manufacturer's Representative:

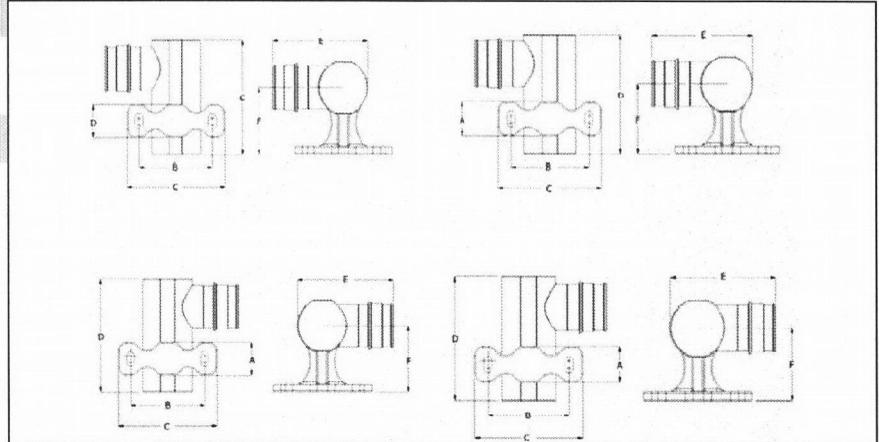
Approved By:

Technical Data

Material: 300 Series Stainless Steel

Product Information and Application Use

Use the ProPEX® Fire Sprinkler Adapter Elbow in conjunction with the appropriate sprinkler to provide a multipurpose residential fire sprinkler system¹. The system is installed with the cold-potable portion of the Uponor plumbing system for residential applications. Make connections using Uponor ProPEX fittings. The fittings are designed for use only with ¾" or 1" AquaPEX® White tubing in the Uponor AQUASAFE® Looped System.



✓ Description	Part Number	A	B	C	D	E	F	Weight
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter Right Elbow, ¾" PEX x ½" FNPT	Q7537550	2.25"	1.95"	1.41"	2.25"	1.95"	1.41"	0.410 lbs.
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter Right Elbow, 1" PEX x ½" FNP	Q7531050	2.63"	2.43"	1.54"	2.63"	2.43"	1.54"	0.783 lbs.
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter Left Elbow, ¾" PEX x ½" FNPT	Q7547550	2.25"	1.95"	1.41"	2.25"	1.95"	1.41"	0.410 lbs.
<input type="checkbox"/> ProPEX Fire Sprinkler Adapter Left Elbow, 1" PEX x ½" FNPT	Q7541050	2.63"	2.43"	1.54"	2.63"	2.43"	1.54"	0.783 lbs.

Installation

Use appropriate ProPEX Ring when connecting the tubing. Refer to the AquaPEX Installation Handbook or the Uponor AQUASAFE Installation Guide for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; IRC; IMC; NPC of Canada

Listings

ANSI/NSF 14- and 61-certified; ICC ESR 1099; HUD MR 1269; IAPMO 3558; UL 1821; ULC/ORD - C 199 P

Related Applications

PEX-a Plumbing Systems
AQUASAFE Fire Safety Systems

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1" Branch Manifold with 1/2" ProPEX® Lead-free (LF) Outlets

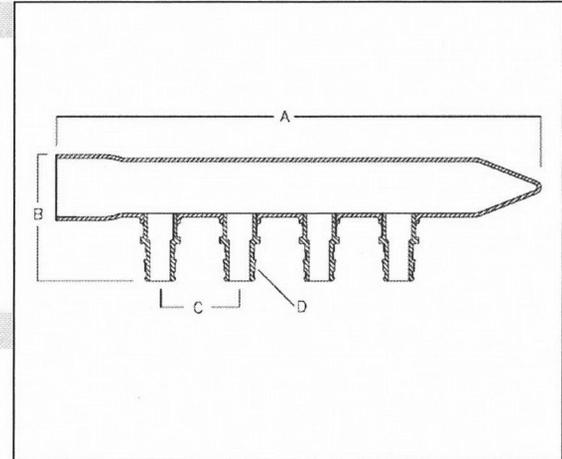
Submittal Information
Revision A: Jan. 28, 2010

Project Information

Job Name:	
Location:	Part No. Ordered:
Engineer:	Date Submitted:
Contractor:	Submitted By:
Manufacturer's Representative:	Approved By:

Technical Data

Material:	Type L Copper; C69300 Brass
Maximum Temperature (no pressure):	320°F (160°C)
Maximum Working Temperature/Pressure:	210°F at 150 psi (99°C at 10 bar)
Maximum Flow Rate at 5 fps:	12.8 gpm
Maximum Flow Rate at 8 fps:	20.5 gpm



Product Information and Application Use

The Uponor 1" Copper Branch Manifold with 1/2" ProPEX® Lead-free outlets is used for hot and cold domestic potable water distribution systems.¹ The manifold has a 1" copper sweat fitting adapter supply connection. All outlets are configured with 1/2" ProPEX Lead-free brass connections.

✓ Description	Part Number	A	B	C	D	Weight
<input type="checkbox"/> 1" Branch Manifold with 1/2" ProPEX LF outlets, 4 outlets	LF2801050	8.95"	2.40"	1.50"	1/2"	0.80 lbs.
<input type="checkbox"/> 1" Branch Manifold with 1/2" ProPEX LF outlets, 6 outlets	LF2811050	11.95"	2.40"	1.50"	1/2"	1.10 lbs.
<input type="checkbox"/> 1" Branch Manifold with 1/2" ProPEX LF outlets, 8 outlets	LF2821050	14.95"	2.40"	1.50"	1/2"	1.40 lbs.
<input type="checkbox"/> 1" Branch Manifold with 1/2" ProPEX LF outlets, 10 outlets	LF2831050	17.95"	2.40"	1.50"	1/2"	1.70 lbs.
<input type="checkbox"/> 1" Branch Manifold with 1/2" ProPEX LF outlets, 12 outlets	LF2841050	20.95"	2.40"	1.50"	1/2"	1.90 lbs.

Installation

Use any product designed to mount 1" copper pipe as a mounting bracket. Any bend within 6 inches of the ProPEX connection to the manifold requires the use of a Tube Talon (F7050750) or Bend Support (A5110500 and A5150500). Refer to the AquaPEX® Professional Plumbing Installation Guide or the AquaSAFE™ Residential Fire Sprinkler Installation Guide for additional information.

Standards

CAN/CSA B137.5; ASTM F877; ASTM F1960

Codes

IPC; UPC; NSPC; NPC of Canada

Listings

UL 1821; ULC/ORD - C 199P; ICC ESR 1099; ANSI/NSF 14- and 61-certified; IAPMO; U.P. Code, Annex G

Related Applications

PEX-a Plumbing Systems
Uponor Residential Fire Safety Systems
Radiant Heating and Cooling Systems

Contact Information

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