



ROYAL RIGID PVC CONDUIT

Pipe and Fittings



Royal Pipe Systems
Great Ideas Taking Shape.



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PRODUCT DESCRIPTION & APPLICATIONS

Royal Pipe Systems™ manufactures a complete line of rigid PVC conduit and fittings. Our non-metallic conduit and fittings are certified by the Canadian Standards Association (CSA) for use in above and below ground applications. Royal Rigid PVC conduit is available in ½ - 6" (12 - 150mm) diameters and 10 or 20' (3 or 6m) lengths.

Royal Rigid PVC conduit systems are used in exposed, encased in concrete, concealed in walls and direct burial applications. Our conduit and fittings are used in many applications, including:

- Utilities
- Cable, data and communication lines
- Institutional, commercial, industrial buildings
- Residential applications, including service entrances
- Street and highway underground feeds
- Transportation Systems - subways, bridges, tunnels, airports
- Water and wastewater treatment plants
- Marinas
- Mines and Mills

STANDARDS

FOR PIPE



Certified to
CSA C22.2 No. 211.0
CSA C22.2 No. 211.2



UL 651
Maximum 90°C wire
rating



Conforms to
NEMA TC2

FOR FITTINGS



Certified to
CSA C22.2
No. 18, 40, 85, 94



UL 514C
UL 514D
UL 50
UL 651

CODES

Canadian Electrical Code (CEC)
Part I, Rules 12-1100 to 12-1122

National Electrical Code (NEC)

This comprehensive manual was created with engineers, contractors, electricians and utilities in mind. It includes applications, benefits, design and installation guidelines for our high quality rigid PVC conduit and fittings. There is a complete section devoted to our fittings that includes dimensions, product codes and drawings for each fitting we offer. We hope that you find this manual useful in designing your next conduit system.

Labour Savings

Royal rigid PVC conduit is easy to install, easy to cut and join and no special tools are required.

Smooth Interior

The inside of our conduit is smooth, therefore wire is not damaged when pulled through.

Easy Wire Pulls

The smooth interior surface of our conduit reduces friction when pulling conductors and wires through long runs. It is easy to pull wire and conductors, even through 90° bends. To make the job of pulling wires easier a large pull-rope and wire-pulling lubricant should be used.

Light Weight Material

Royal Rigid PVC conduit is approximately 1/5th the weight of steel and half the weight of aluminum, therefore making it easy to move and handle.

Approximate Weight Comparison

| Size | PVC | Aluminum | Steel |
|------------|-----------------|-----------------|-----------------|
| in (mm) | lb/100ft (kg/m) | lb/100ft (kg/m) | lb/100ft (kg/m) |
| 1/2 (12) | 16.1 (0.24) | 27 (0.40) | 79 (1.20) |
| 3/4 (19) | 21.5 (0.32) | 37 (0.55) | 105 (1.55) |
| 1 (25) | 31.9 (0.47) | 53 (0.80) | 153 (2.30) |
| 1 1/4 (32) | 43.8 (0.65) | 70 (1.05) | 201 (3.00) |
| 1 1/2 (38) | 52.3 (0.78) | 86 (1.30) | 249 (3.70) |
| 2 (50) | 70.3 (1.05) | 116 (1.75) | 334 (5.00) |
| 2 1/2 (63) | 112.0 (1.61) | 183 (2.75) | 527 (7.85) |
| 3 (75) | 146.7 (2.18) | 239 (3.55) | 690 (10.25) |
| 3 1/2 (89) | 176.4 (2.63) | 288 (4.30) | 831 (12.40) |
| 4 (100) | 208.9 (3.11) | 340 (5.10) | 982 (14.60) |
| 5 (125) | 283.4 (4.22) | 465 (6.90) | 1,344 (20.40) |
| 6 (150) | 368.0 (5.48) | 613 (9.10) | 1,771 (26.35) |

Direct Burial

Royal Rigid PVC conduit can be used for direct burial, requiring no additional protection when installed according to the Canadian Electrical Code (CEC) and the National Electrical Code (NEC). Normal construction practices should be followed with the trenching and backfilling operations.

Resistant to Chemical Attack

Royal Rigid PVC conduit resists attack by acids, alkalis, salt solutions and most other chemicals. Refer to the Royal Chemical Resistance Guide for detailed information.

Quality Control & Assurance

Our conduit and fittings undergo extensive testing and inspection in our manufacturing facilities. Our conduit products are third-party certified to CSA and UL Standards.

High Tensile and Impact Strengths

Royal Rigid PVC conduit has high tensile and impact strengths at all temperatures. It meets the test requirements of the CSA and UL Standards.

Impact Test Data

| Nominal Size | CSA Test @ -29°F (-34°C) | UL Test @ 72°F (23°C) |
|------------------|--------------------------|-----------------------|
| in (mm) | ft-lbs (J) | ft-lbs (J) |
| 1/2 (12) | 8.9 (12) | 50 (68) |
| 3/4 (19) | 8.9 (12) | 80 (109) |
| 1 (25) | 8.9 (12) | 100 (136) |
| 1 1/4 (32) | 8.9 (12) | 120 (163) |
| 1 1/2 (38) | 8.9 (12) | 150 (204) |
| 2 (50) | 8.9 (12) | 190 (258) |
| 2 1/2 (63) | 8.9 (12) | 210 (285) |
| 3 - 6 (75 - 150) | 8.9 (12) | 220 (298) |

Long Life

Royal Rigid PVC conduit is resistant to direct sunlight, heat and all weather conditions, even after years of exposure. It is also resistant to macro and micro-organisms, fungi, rodents and corrosive agents.

Concrete Tight

Our conduit and fittings are concrete tight, when properly installed.

There are many benefits for using Royal Rigid PVC conduit and fittings. It reduces maintenance and labour costs, and offers superior performance.

Our conduit and fittings are non-metallic therefore there is no risk of corrosion when exposed to naturally corrosive soil conditions. They will not rust or corrode from electrochemical and galvanic environments.

Non-Conductive

Royal Rigid PVC conduit is non-sparking and non-conducting. It eliminates the second point of contact and phase to ground faults. For a complete positive ground for the whole system, use a separate grounding conductor.

FT-4 Rating

Royal Rigid PVC conduit has an FT-4 Rating, therefore it can be used in non-combustible construction as per the National Building Code of Canada (NBC) Section 3.1.5.20.

Fire Resistant

The PVC compound used to manufacture our rigid PVC conduit and fittings is a self-extinguishing material that does not support combustion. It does not burn without a flame being directly applied to it. Once the flame is removed the material stops burning.

Fittings

We offer a complete line of fittings to be used with our conduit. A complete section detailing each of our fittings is included in this manual.

| Nominal Size in (mm) | Flame Spread | Smoke Development |
|----------------------|--------------|-------------------|
| 1,3mm - 20mm | 20 | 460 - 520 |



INSTALLATION GUIDELINES

Cutting

To cut Royal Rigid PVC Conduit, no special tools are required. Rigid PVC Conduit can be easily cut using a hacksaw, a fine-toothed hand saw or PVC conduit cutters. For conduit that has a diameter larger than 2" (50mm), it is recommended to use a mitre box or saw guide to ensure a square cut. Deburr the cut end using a knife or file.

Bending

Sometimes it is required to bend the conduit on-site during installation. To make a bend, heat a section of conduit that is ten times the diameter in length. For example, if bending a 50mm (2") diameter conduit, heat a section of conduit 500mm (20") long. Use only a flameless heat source, like a heat gun. Do not use an open flame to heat the conduit.

Heat the conduit evenly to approximately 260°F (127°C). If the conduit is not heated to the appropriate temperature the conduit may collapse or kink when bent. Once the conduit is heated, bend to desired degree, then bend a few extra degrees to allow for "spring back". After bending, immediately cool conduit with water or cold air.

According to the Canadian Electrical Code (CEC), the minimum bending radius of conduit is six times the inside diameter of the conduit. Except if lead-sheathed cable is used, then the minimum radius shall be increased to 10 times the internal diameter. All bends shall not distort the raceway or damage the inner or outer surfaces of the conduit.

Royal Pipe Systems™ offers a complete line of pre-fabricated bends. Installation of rigid PVC conduit is quick and easy, so you can get the job done, on time and within budget.

Residential application of Rigid PVC Conduit



Joining - Solvent Cementing

Lengths of rigid PVC conduit and fittings are connected by solvent cement joints. These joints are strong, permanent and leakproof.

Procedure:

1. Deburr the spigot end of the conduit.
2. Clean the outside of the spigot and the inside of the socket of all dirt and moisture.
3. Before applying the cement, push the spigot into the socket to ensure they fit together properly.
4. Apply solvent cement to the outside of the spigot and the inside of the socket.
5. Push the spigot into the socket until it bottoms, turn a one-quarter turn to ensure that the solvent is spread around the entire joint.
6. Hold together for a few seconds until joint is created.

Solvent cemented joints appear to be made immediately, however it can take up to 24 hours for the joint to completely cure.

When installing conduit in cold weather, a primer should be applied before the solvent cement. Also, keep the primer and solvent cement warm to prevent it from thickening and becoming hard to use.

Solvent cement and primer have shelf life of 24 months if stored unopened at 72°F (22°C). Check the bottom of the can for the date of manufacture before using.

Solvent Cement

All connections should be made using Royal Pipe Systems solvent cement.

Average Number of Joints Per Can

| Pipe Size in (mm) | 1/2 Pint (250ml) | Pint (500ml) | Quart (1/L) | Gallon (4/L) |
|-------------------|------------------|--------------|-------------|--------------|
| 1/2 (12) | 140 | 275 | 550 | 2,200 |
| 3/4 (19) | 90 | 180 | 360 | 1,440 |
| 1 (25) | 70 | 140 | 280 | 1,120 |
| 1 1/4 (32) | 50 | 100 | 200 | 800 |
| 1 1/2 (38) | 37 | 75 | 150 | 600 |
| 2 (50) | 20 | 40 | 80 | 320 |
| 2 1/2 (63) | 17 | 35 | 70 | 280 |
| 3 (75) | 15 | 30 | 60 | 240 |
| 3 1/2 (89) | 13 | 27 | 54 | 216 |
| 4 (100) | 12 | 25 | 50 | 200 |
| 5 (125) | 9 | 19 | 38 | 150 |
| 6 (150) | 6 | 12 | 24 | 95 |

Support Straps

Rigid PVC conduit needs to be supported with straps when installed in above ground applications. The supporting straps should be installed snugly but allow linear movement of the conduit. The table below shows the recommended maximum spacing of the support straps.

Max. Recommended Spacing of Support Straps

| Nominal Size in (mm) | CEC Recommended Spacing ft (m) | NEC Recommended Spacing ft (m) |
|----------------------|--------------------------------|--------------------------------|
| 1/2 (12) | 2 1/2 (0.75) | 3 (0.91) |
| 3/4 (19) | 2 1/2 (0.75) | 3 (0.91) |
| 1 (25) | 2 1/2 (0.75) | 3 (0.91) |
| 1 1/4 (32) | 4 (1.20) | 5 (1.50) |
| 1 1/2 (38) | 4 (1.20) | 5 (1.50) |
| 2 (50) | 5 (1.50) | 5 (1.50) |
| 2 1/2 (63) | 6 (1.80) | 6 (1.80) |
| 3 (75) | 6 (1.80) | 6 (1.80) |
| 3 1/2 (89) | 7 (2.10) | 7 (2.10) |
| 4 (100) | 7 (2.10) | 7 (2.10) |
| 5 (125) | 7 (2.10) | 7 (2.10) |
| 6 (150) | 8 (2.50) | 8 (2.50) |

Storage of Materials

Conduit and fittings should be stored at the same temperature, otherwise they may become incompatible due to different expansion and contraction rates.

Connecting to non-PVC Materials

According to the Canadian Electrical Code (CEC), when rigid PVC conduit is joined directly to metal conduit, a PVC female threaded adapter must be used.

Maximum Operating Temperature

According to the Canadian Electrical Code (CEC), rigid PVC conduit is intended for use at a continuous operating temperature of 167°F (75°C). However, when installing conduit according to the National Electrical Code (NEC), it can be used with up to 90°C wiring. Royal rigid PVC conduit is rated for use with 90°C wiring.

Maximum Ambient Temperature

Royal rigid PVC conduit and fittings can be installed in locations with an ambient temperature not exceeding 122°F (50°C).

Expansion Joints

If the expected temperature variance exceeds 25°F (14°C), expansion joints need to be installed along each run of conduit. See page 5 for more details on designing and installing expansion joints.

Design Guidelines

The following design guidelines will help to determine the amount of expected expansion, the number of expansion joints required and where to set the piston opening on the expansion joint. The coefficient of linear expansion for PVC conduit is Unibell 3.0×10^{-5} in/in/°F (5.4×10^{-5} mm/mm/°C).

Expected Expansion

To determine the expected expansion:

total expected expansion (") = total expected temp. variance (°F) x length of run (") x coefficient of linear expansion of PVC (in/ft/°F = 4.056×10^{-5})

total expected expansion (mm) = total expected temp. variance (°C) x length of run (m) x coefficient of linear expansion of PVC (mm/m/°C = 0.0608)

If the conduit is being installed outside, add 30°F (17°C) to the total expected temperature variance to allow for radiant heating of the conduit.

As a guideline, for every 10°F (5.6°C) of expected temperature variance, the conduit will expand or contract 0.4" (10.3mm) for 100ft (30.48m) of conduit.

Required Number of Expansion Joints

If the total expected expansion exceeds ½" (13mm), calculate the required number of expansion joints, rounding up to the nearest whole number:

expansion joints required = total expected expansion (") / expansion allowance of expansion joint (")

expansion joints required = total expected expansion (mm) / expansion allowance of expansion joint (mm)

Setting the Piston Opening

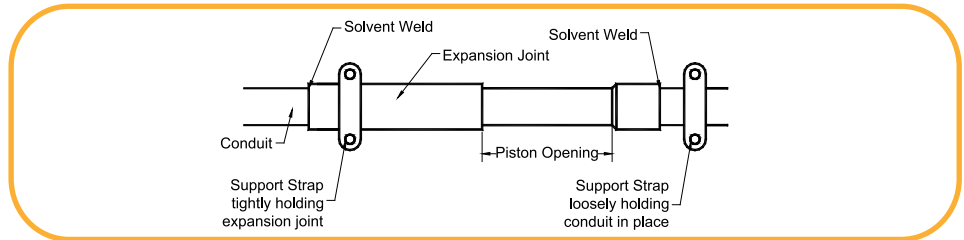
Expansion joints need to allow for both expansion and contraction of the conduit. The piston of the expansion joint needs to be set at the correct position to allow for linear movement. To determine the correct position for the piston, calculate:

$$\text{Piston setting (")} = \frac{(\text{max. temp. (°F)} - \text{install temp. (°F)})}{\text{total temp. change (°F)}} \times \text{exp. allowance of exp. joint (")}$$

$$\text{Piston setting (mm)} = \frac{(\text{max. temp. (°C)} - \text{install temp. (°C)})}{\text{total temp. change (°F)}} \times \text{exp. allowance of exp. joint (mm)}$$

Installation Guidelines

- Securely fasten the expansion joint so that the expansion joint does not shift. Loosely connect the conduit, so that it is free to move, therefore using the expansion joint.
- For expansion joints to function properly they should be installed near a fixed point.
- It is better to use more expansion joints, than not enough. It is difficult to correct any problems after conductors and wires have been pulled through the conduit.
- Ensure that the barrel and piston are aligned and level.
- For vertical installations of expansion joints, have the barrel running down with the piston at the bottom, this prevents dirt and water from getting inside the joint and causing it to malfunction.



Location of Expansion Joints along a run of conduit

If one expansion joint is required:

Securely fasten the barrel of the expansion joint close to one of the boxes. Support the conduit with straps, but allow free movement of the conduit for expansion and contraction. See Drawing 1.

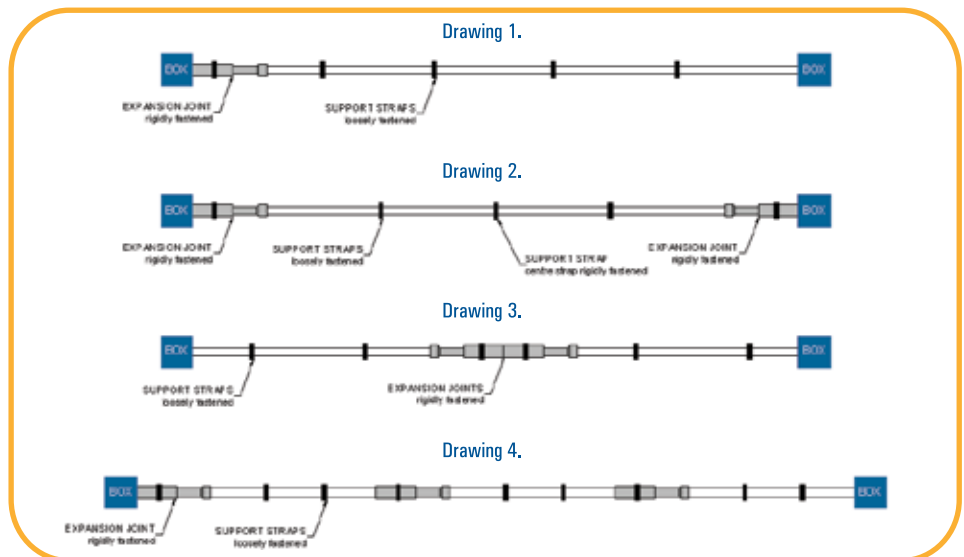
If two expansion joints are required:

Option 1 - Firmly fasten one expansion joint near each end of the run and firmly fasten the conduit at the centre. Support the rest of the conduit with straps allowing movement of the conduit. See Drawing 2.
Option 2 - Firmly fasten the expansion joints back to back at the centre of the run. The conduit should be supported with straps to allow free movement as it expands and contracts. See Drawing 3.

If three or more expansion joints are required :

Evenly space the expansion joints along the run of rigid PVC conduit. Tightly fasten each expansion joint and support the conduit with straps. Do not restrict the movement of the conduit. See Drawing 4.

** For information on Maximum Recommended Spacing of Support Straps, see page 4.



Royal rigid PVC conduit expands and contracts due to variations in temperature when installed in above ground applications. Expansion joints are required along runs of rigid PVC conduit where the temperature variation is more than 25°F (14°C).

DIMENSIONS

| Nominal Size in (mm) | Average Outside Diameter in (mm) | Average Inside Diameter in (mm) | Average Wall Thickness in (mm) | Approximate Weight lb/100ft (kg/m) |
|-------------------------|-------------------------------------|------------------------------------|-----------------------------------|---------------------------------------|
| 1/2 (12) | 0.840 (21) | 0.608 (15) | 0.116 (3) | 16.1 (0.24) |
| 3/4 (19) | 1.050 (27) | 0.810 (21) | 0.120 (3) | 21.5 (0.32) |
| 1 (25) | 1.315 (33) | 1.033 (26) | 0.141 (4) | 31.9 (0.47) |
| 1 1/4 (32) | 1.660 (42) | 1.362 (35) | 0.149 (4) | 43.8 (0.65) |
| 1 1/2 (38) | 1.900 (48) | 1.592 (40) | 0.154 (4) | 52.3 (0.78) |
| 2 (50) | 2.375 (60) | 2.049 (52) | 0.163 (4) | 70.3 (1.05) |
| 2 1/2 (63) | 2.875 (73) | 2.445 (62) | 0.215 (5) | 112.0 (1.61) |
| 3 (75) | 3.500 (89) | 3.042 (77) | 0.229 (6) | 146.7 (2.18) |
| 3 1/2 (89) | 4.000 (102) | 3.520 (89) | 0.240 (6) | 176.4 (2.63) |
| 4 (100) | 4.500 (114) | 3.998 (102) | 0.251 (6) | 208.9 (3.11) |
| 5 (125) | 5.565 (141) | 5.017 (127) | 0.274 (7) | 283.4 (4.22) |
| 6 (150) | 6.625 (168) | 6.031 (153) | 0.297 (8) | 368.0 (5.48) |

SPECIFICATION

All wiring shall be installed in Royal rigid PVC conduit and secured by means of proper fittings. All conduit and fittings shall be manufactured by Royal Pipe Systems. All outlets, pull boxes and junction points shall be fitted with Royal outlet boxes, fittings and junction boxes.

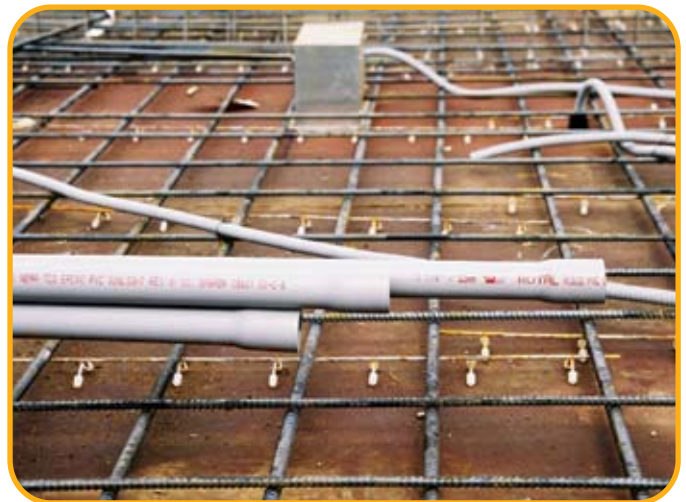
Exposed conduit shall be securely attached and supported by means of straps. The straps shall be installed at the recommended spacing as specified in CEC Section 12-1114. The straps must allow for linear expansion and contraction of the conduit due to temperature change. If the variance in temperature exceeds 25°F (14°C), expansion joints shall be installed according to the manufacturer's recommendations.

If Royal rigid PVC conduit is embedded in concrete or direct buried, support straps are not required.

Royal Rigid PVC Conduit - Residential

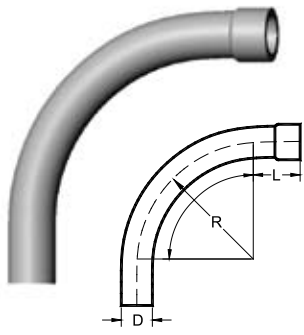


Royal Rigid PVC Conduit - Commercial



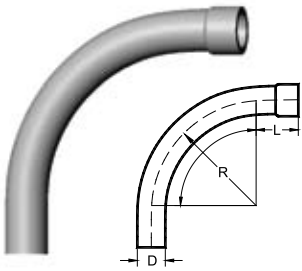
FITTINGS - ACCESS FITTINGS

90° ELBOWS - BELL END



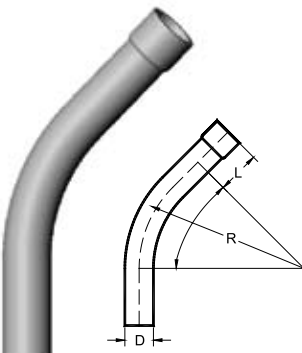
| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1090 | 46120 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1590 | 46150 | 1.050 | 1.500 | 4.50 |
| 1 | REE2090 | 46180 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2590 | 46210 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3090 | 46240 | 1.900 | 2.000 | 8.25 |
| 2 | REE3590 | 46270 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4090 | 46330 | 2.875 | 3.000 | 10.50 |
| 3 | REE4590 | 46360 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5090 | 46390 | 4.000 | 3.250 | 15.00 |
| 4 | REE5590 | 46420 | 4.500 | 3.375 | 16.00 |
| 5 | REE6090 | 46440 | 5.565 | 3.622 | 24.00 |
| 6 | REE6590 | 46460 | 6.625 | 3.740 | 30.00 |

UTILITIES 90° ELBOWS - BELL END



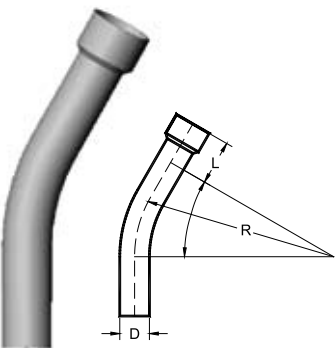
| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 2 | REE2-24 | 46501 | 2.375 | 41.20 | 24.00 |
| 2 | REE2-36 | 46502 | 2.375 | 31.70 | 36.00 |
| 3 | REE3-24 | 46503 | 3.500 | 41.20 | 24.00 |
| 3 | REE3-36 | 46504 | 3.500 | 31.70 | 36.00 |
| 4 | REE4-36 | 46465 | 4.500 | 31.70 | 36.00 |
| 4 | REE4-48 | 46505 | 4.500 | 31.70 | 48.00 |
| 5 | REE5-36 | 46506 | 5.565 | 31.70 | 36.00 |
| 6 | REE6-36 | 46507 | 6.625 | 31.70 | 36.00 |

45° ELBOWS - BELL END



| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1045 | 46110 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1545 | 46140 | 1.050 | 1.500 | 4.50 |
| 1 | REE2045 | 46170 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2545 | 46200 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3045 | 46230 | 1.900 | 2.000 | 8.25 |
| 2 | REE3545 | 46280 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4045 | 46320 | 2.875 | 3.000 | 10.50 |
| 3 | REE4545 | 46350 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5045 | 46380 | 4.000 | 3.250 | 15.00 |
| 4 | REE5545 | 46410 | 4.500 | 3.375 | 16.00 |
| 5 | REE6045 | 46430 | 5.565 | 3.625 | 24.00 |
| 6 | REE6545 | 46450 | 6.625 | 3.750 | 30.00 |

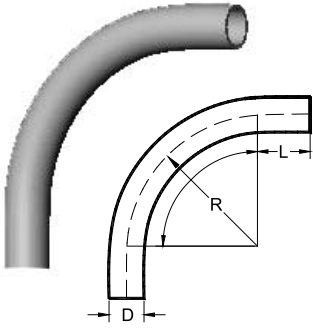
30° ELBOWS - BELL END



| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1030 | 46100 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1530 | 46130 | 1.050 | 1.500 | 4.50 |
| 1 | REE2030 | 46160 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2530 | 46190 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3030 | 46220 | 1.900 | 2.000 | 8.25 |
| 2 | REE3530 | 46274 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4030 | 46310 | 2.875 | 3.000 | 10.50 |
| 3 | REE4530 | 46340 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5030 | 46375 | 4.000 | 3.250 | 15.00 |
| 4 | REE5530 | 46400 | 4.500 | 3.375 | 16.00 |
| 5 | REE6030 | 46425 | 5.565 | 3.625 | 24.00 |
| 6 | REE6530 | 46442 | 6.625 | 3.750 | 30.00 |

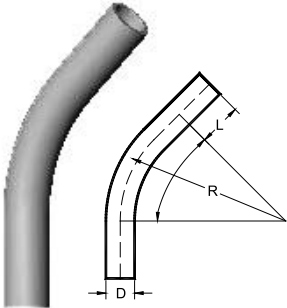
FITTINGS - BENDS (PLAIN ENDS)

90° ELBOWS - Plain End



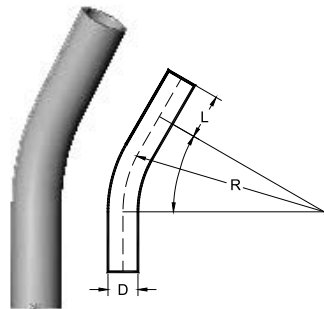
| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1090PE | 46120 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1590PE | 46150 | 1.050 | 1.500 | 4.50 |
| 1 | REE2090PE | 46180 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2590PE | 46210 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3090PE | 46240 | 1.900 | 2.000 | 8.25 |
| 2 | REE3590PE | 46270 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4090PE | 46330 | 2.875 | 3.000 | 10.50 |
| 3 | REE4590PE | 46360 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5090PE | 46390 | 4.000 | 3.250 | 15.00 |
| 4 | REE5590PE | 46420 | 4.500 | 3.375 | 16.00 |
| 5 | REE6090PE | 46440 | 5.565 | 3.622 | 24.00 |
| 6 | REE6590PE | 46460 | 6.625 | 3.740 | 30.00 |

45° ELBOWS - Plain End



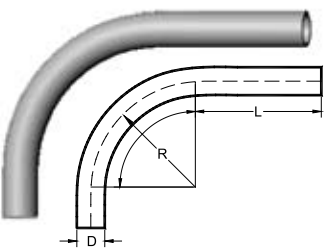
| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1045PE | 46110 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1545PE | 46140 | 1.050 | 1.500 | 4.50 |
| 1 | REE2045PE | 46170 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2545PE | 46200 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3045PE | 46230 | 1.900 | 2.000 | 8.25 |
| 2 | REE3545PE | 46280 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4045PE | 46320 | 2.875 | 3.000 | 10.50 |
| 3 | REE4545PE | 46350 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5045PE | 46380 | 4.000 | 3.250 | 15.00 |
| 4 | REE5545PE | 46410 | 4.500 | 3.375 | 16.00 |
| 5 | REE6045PE | 46430 | 5.565 | 3.622 | 24.00 |
| 6 | REE6545PE | 46450 | 6.625 | 3.740 | 30.00 |

30° ELBOWS - Plain End



| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1/2 | REE1030PE | 46100 | 0.840 | 1.500 | 4.00 |
| 3/4 | REE1530PE | 46130 | 1.050 | 1.500 | 4.50 |
| 1 | REE2030PE | 46160 | 1.315 | 1.875 | 5.75 |
| 1 1/4 | REE2530PE | 46190 | 1.660 | 2.000 | 7.25 |
| 1 1/2 | REE3030PE | 46220 | 1.900 | 2.000 | 8.25 |
| 2 | REE3530PE | 46274 | 2.375 | 2.000 | 9.50 |
| 2 1/2 | REE4030PE | 46310 | 2.875 | 3.000 | 10.50 |
| 3 | REE4530PE | 46340 | 3.500 | 3.125 | 13.00 |
| 3 1/2 | REE5030PE | 46375 | 4.000 | 3.250 | 15.00 |
| 4 | REE5530PE | 46400 | 4.500 | 3.375 | 16.00 |
| 5 | REE6030PE | 46425 | 5.565 | 3.622 | 24.00 |
| 6 | REE6530PE | 46442 | 6.625 | 3.740 | 30.00 |

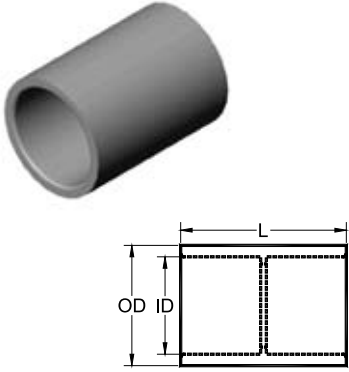
90° ELBOWS - Extended Plain End



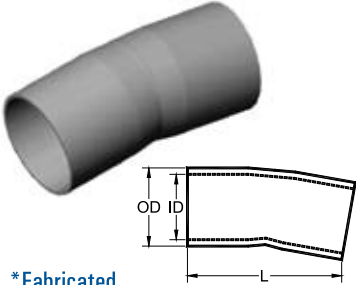
| Size (in) | Product Number | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|-----------|----------------|------------|-------------------|-----------------|-----------------|
| 1 1/4 | REE2590E | 46215 | 1.660 | 14.750 | 7.25 |
| 1 1/2 | REE3090E | 462600 | 1.900 | 14.750 | 8.25 |
| 2 | REE3590E | 46290 | 2.375 | 14.750 | 9.50 |

FITTINGS - COUPLINGS AND ADAPTERS

COUPLINGS

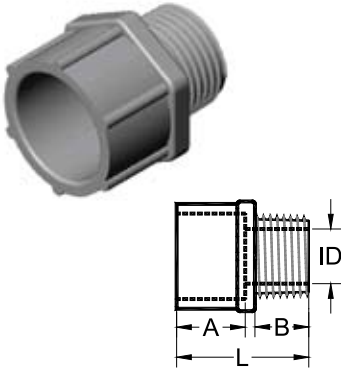
|  | Size (in) | Product Number | UPC Number | Outside Diameter (OD) (in) | Inside Diameter (ID) (in) | Length (L) (in) |
|---|-----------|----------------|------------|----------------------------|---------------------------|-----------------|
| | 1/2 | REC10 | 45950 | 1.080 | 0.840 | 1.437 |
| 3/4 | REC15 | 45960 | 1.300 | 1.050 | 1.703 | |
| 1 | REC20 | 45970 | 1.590 | 1.315 | 2.031 | |
| 1 1/4 | REC25 | 45980 | 2.000 | 1.660 | 2.156 | |
| 1 1/2 | REC30 | 45990 | 2.230 | 1.900 | 2.281 | |
| 2 | REC35 | 46000 | 2.720 | 2.375 | 2.406 | |
| 2 1/2 | REC40 | 46010 | 3.320 | 2.875 | 3.187 | |
| 3 | REC45 | 46020 | 4.000 | 3.500 | 3.437 | |
| 3 1/2 | REC50 | 46030 | 4.500 | 4.000 | 3.625 | |
| 4 | REC55 | 46060 | 5.000 | 4.500 | 3.750 | |
| 5 | REC60 | 46080 | 6.120 | 5.565 | 4.187 | |
| 6 | REC65 | 46090 | 7.370 | 6.625 | 4.562 | |

5? COUPLINGS

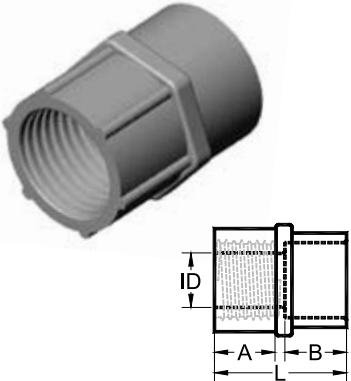
|  | Size (in) | Product Number | UPC Number | Outside Diameter (OD) (in) | Inside Diameter (ID) (in) | Length (L) (in) |
|---|-----------|----------------|------------|----------------------------|---------------------------|-----------------|
| | 2 | R5EC35 | 46800 | 2.375 | 2.049 | 4.0 |
| 2 1/2 | R5EC40 | 46805 | 2.875 | 2.445 | 5.5 | |
| 3 1/2 | R5EC45 | 46810 | 3.500 | 3.042 | 6.0 | |
| 3 | R5EC50 | 46815 | 4.000 | 3.521 | 7.0 | |
| 4 | R5EC55 | 46820 | 4.500 | 3.998 | 7.0 | |
| 5 | R5EC60 | 46825 | 5.565 | 5.018 | 7.5 | |
| 6 | R5EC65 | 46830 | 6.625 | 6.031 | 11.0 | |

*Fabricated

TERMINAL ADAPTERS (1/2" - 1 1/4" TAPERED THREAD, 6" NON-TAPERED THREAD)

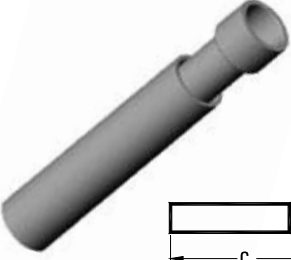
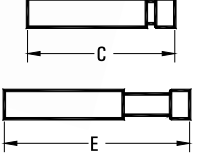
|  | Size (in) | Product Number | UPC Number | A (in) | B (in) | Inside Diameter (ID) (in) | Length (L) (in) |
|---|-----------|----------------|------------|--------|--------|---------------------------|-----------------|
| | 1/2 | RTA10 | 45730 | 0.750 | 0.700 | 0.591 | 1.550 |
| 3/4 | RTA15 | 45740 | 1.000 | 0.675 | 0.790 | 1.750 | |
| 1 | RTA20 | 45750 | 1.115 | 0.625 | 1.000 | 1.860 | |
| 1 1/4 | RTA25 | 45760 | 1.300 | 0.640 | 1.311 | 2.125 | |
| 1 1/2 | RTA30 | 45770 | 1.425 | 0.725 | 1.530 | 2.250 | |
| 2 | RTA35 | 45780 | 1.150 | 0.800 | 1.970 | 2.100 | |
| 2 1/2 | RTA40 | 45790 | 1.900 | 0.800 | 2.346 | 2.930 | |
| 3 | RTA45 | 45800 | 2.000 | 0.815 | 2.915 | 3.055 | |
| 3 1/2 | RTA50 | 45810 | 1.715 | 1.000 | 3.385 | 3.055 | |
| 4 | RTA55 | 45820 | 1.990 | 0.815 | 3.850 | 3.215 | |
| 5 | RTA60 | 45830 | 2.000 | 1.725 | 5.015 | 5.985 | |
| 6 | RTA65 | 45840 | 2.130 | 1.875 | 6.025 | 6.500 | |

FEMALE ADAPTERS (NPT TAPERED THREAD)




|  | Size (in) | Product Number | UPC Number | A (in) | B (in) | Inside Diameter (ID) (in) | Radius (R) (in) |
|---|-----------|----------------|------------|--------|--------|---------------------------|-----------------|
| | 1/2 | RFA10 | 44990 | 0.800 | 0.825 | 0.620 | 1.725 |
| 3/4 | RFA15 | 45000 | 0.800 | 1.000 | 0.820 | 1.900 | |
| 1 | RFA20 | 45010 | 1.000 | 1.200 | 1.065 | 2.300 | |
| 1 1/4 | RFA25 | 45020 | 1.015 | 1.300 | 1.395 | 2.425 | |
| 1 1/2 | RFA30 | 45030 | 1.050 | 1.290 | 1.575 | 2.440 | |
| 2 | RFA35 | 45040 | 1.075 | 1.375 | 2.050 | 2.550 | |
| 2 1/2 | RFA40 | 45050 | 1.675 | 1.985 | 2.470 | 3.760 | |
| 3 | RFA45 | 45060 | 1.630 | 2.150 | 3.090 | 4.100 | |
| 3 1/2 | RFA50 | 45070 | 1.800 | 2.000 | 3.540 | 3.985 | |
| 4 | RFA55 | 45080 | 1.755 | 2.185 | 4.025 | 4.210 | |
| 5 | RFA60 | 45090 | 2.065 | 3.000 | 5.035 | 5.240 | |
| 6 | RFA65 | 45100 | 2.065 | 3.000 | 6.045 | 5.235 | |

FITTINGS - EXPANSION JOINTS, STRAPS & METER ACCESSORIES


EXPANSION JOINTS

|   | Size (in) | Product Number | UPC Number | Expanded (E) (in) | Contracted (C) (in) | Travel (in) |
|--|-----------|----------------|------------|-------------------|---------------------|-------------|
| | 1/2 | REJ10 | 44870 | 12.00 | 8.00 | 4.00 |
| | 3/4 | REJ15 | 44880 | 12.00 | 8.00 | 4.00 |
| | 1 | REJ20 | 44890 | 12.50 | 8.50 | 4.00 |
| | 1 1/4 | REJ25 | 44900 | 13.00 | 9.00 | 4.00 |
| | 1 1/2 | REJ30 | 44910 | 13.00 | 9.00 | 4.00 |
| | 2 | REJ35 | 44920 | 13.25 | 9.25 | 4.00 |
| | 2 1/2 | REJ40 | 44930 | 13.25 | 9.25 | 4.00 |
| | 3 | REJ45 | 44940 | 22.25 | 14.25 | 8.00 |
| | 3 1/2 | REJ50 | 44950 | 22.25 | 14.25 | 8.00 |
| 4 | REJ55 | 44960 | 22.25 | 14.25 | 8.00 | |
| 5 | REJ60 | 44963 | 22.25 | 14.25 | 8.00 | |
| 6 | REJ65 | 44966 | 22.25 | 14.25 | 8.00 | |


PIPE STRAPS

| PVC - 2 HOLE | | | | PVC COATED STEEL - 2 HOLE | | | | PVC COATED STEEL - 1 HOLE | | | |
|---|-----------|-------------|---------|---|-----------|-------------|---------|---|-----------|-------------|---------|
|  | Size (in) | Product No. | UPC No. |  | Size (in) | Product No. | UPC No. |  | Size (in) | Product No. | UPC No. |
| | 1/2 | RPS10 | 45540 | | 2 | RCS35 | 44783 | | 1/2 | RCS10-1 | 46850 |
| | 3/4 | RPS15 | 45550 | | 2 1/2 | RCS40 | 44784 | | 3/4 | RCS15-1 | 46852 |
| | 1 | RPS20 | 45560 | | 3 | RCS45 | 44785 | | 1 | RCS20-1 | 46854 |
| | 1 1/4 | RPS25 | 45570 | | 3 1/2 | RCS50 | 44786 | | 1 1/4 | RCS25-1 | 46856 |
| | 1 1/2 | RPS30 | 45580 | | 4 | RCS55 | 44787 | | 1 1/2 | RCS30-1 | 46858 |
| | 2 | RPS35 | 45590 | | 5 | RCS60 | 44788 | | 2 | RCS35-1 | 46860 |
| | | | 6 | RCS65 | 44789 | 2 1/2 | RCS40-1 | 46862 | | | |
| | | | | | | 3 | RCS10-1 | 46864 | | | |
| | | | | | | 4 | RCS10-1 | 46866 | | | |


METER OFFSETS

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 1 1/4 | RM025 | 45500 |
| | 2 | RM035 | 45510 |


METER HUBS

|  | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1 1/4 | RMHU25 | 45480 |
| | 1 1/2 | RMHU30 | 45485 |
| | 2 | RMHU35 | 45490 |

LONG METER OFFSETS

|  *Fabricated | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1 1/4 | RLM025 | 45472 |
| | 1 1/2 | RLM030 | 45474 |
| | 2 | RLM035 | 45476 |


SERVICE ENTRANCE FITTINGS

|  | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1/2 | REF10 | 44795 |
| | 3/4 | REF15 | 44800 |
| | 1 | REF20 | 44810 |
| | 1 1/4 | REF25 | 44820 |
| | 1 1/2 | REF30 | 44830 |
| | 2 | REF35 | 44840 |
| | 2 1/2 | REF40 | 44842 |
| | 3 | REF45 | 44844 |
| | 3 1/2 | REF50 | 44852 |
| | 4 | REF55 | 44860 |

EXPANSION & DEFLECTION FITTING ASSEMBLY

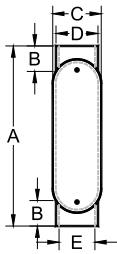
|  | Size (in) | Product Number | UPC Number |
|---|-----------|----------------|------------|
| | 2 | RSEJ35 | 46990 |
| | 3 | RSEJ45 | 46992 |
| | 4 | RSEJ55 | 46994 |

PVC CEMENT (*C/W Screw Cap & Dauber)

|  | Product Number | UPC Number | Size | Carton Quantity |
|--|----------------|------------|----------|-----------------|
| | RCC250 | 54540 | *250ml | 24 |
| | RCC500 | 54560 | *500ml | 12 |
| | RCC1LTR | 54520 | *1 Litre | 12 |
| | RCC4LTR | 54550 | 4 Litre | 4 |

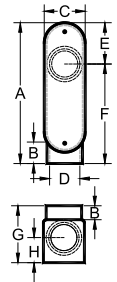
FITTINGS - ACCESS FITTINGS

TYPE C



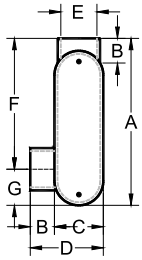
| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|
| 1/2 | RSC10S | 46600 | 5.606 | 0.639 | 1.268 | 1.100 | 0.840 |
| 3/4 | RSC20S | 46605 | 5.606 | 0.810 | 1.536 | 1.325 | 1.050 |
| 1 | RSC30S | 46610 | 6.500 | 0.910 | 1.700 | 1.600 | 1.335 |
| 1 1/4 | RSC40S | 46615 | 7.900 | 1.050 | 2.300 | 2.250 | 1.100 |
| 1 1/2 | RSC50S | 46620 | 8.500 | 1.125 | 2.675 | 2.250 | 1.900 |
| 2 | RSC60S | 45605 | 10.875 | 1.160 | 3.188 | 2.820 | 2.375 |
| 2 1/2 | RSC70S | 45606 | 14.600 | 1.750 | 4.500 | 3.950 | 2.870 |
| 3 | RSC80S | 45607 | 14.600 | 1.900 | 4.500 | 3.950 | 3.510 |
| 3 1/2 | RSC90S | 45608 | 17.040 | 2.125 | 5.536 | 5.000 | 4.000 |
| 4 | RSC100S | 45609 | 17.040 | 2.125 | 5.536 | 5.000 | 4.530 |

TYPE LB



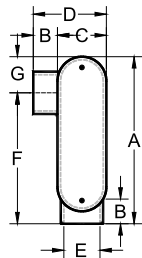
| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) | H (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1/2 | RSLB10S | 45620 | 4.337 | 0.639 | 1.268 | 0.840 | 1.297 | 4.095 | 2.487 | 1.005 |
| 3/4 | RSLB20S | 45630 | 5.395 | 0.810 | 1.536 | 1.050 | 1.297 | 4.095 | 2.487 | 1.005 |
| 1 | RSLB30S | 45640 | 6.250 | 0.910 | 1.700 | 1.335 | 1.500 | 4.750 | 2.075 | 1.125 |
| 1 1/4 | RSLB40S | 45650 | 7.625 | 1.050 | 2.300 | 1.100 | 1.750 | 5.750 | 3.575 | 1.562 |
| 1 1/2 | RSLB50S | 45660 | 8.250 | 1.125 | 2.675 | 1.900 | 1.750 | 6.500 | 3.938 | 1.656 |
| 2 | RSLB60S | 45670 | 10.531 | 1.160 | 3.188 | 2.375 | 2.344 | 8.156 | 4.535 | 1.968 |
| 2 1/2 | RSLB70S | 45675 | 13.630 | 1.750 | 4.500 | 2.870 | 3.805 | 9.825 | 6.240 | 2.610 |
| 3 | RSLB80S | 45680 | 13.630 | 1.900 | 4.500 | 3.510 | 2.733 | 10.897 | 6.240 | 2.610 |
| 3 1/2 | RSLB90S | 45681 | 16.000 | 2.125 | 5.536 | 4.000 | 4.535 | 11.465 | 7.500 | 2.975 |
| 4 | RSLB100S | 45610 | 16.000 | 2.125 | 5.536 | 4.530 | 4.535 | 11.465 | 7.500 | 2.975 |

TYPE LL



| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|--------|--------|
| 1/2 | RSLB10S | 46650 | 4.337 | 0.639 | 1.268 | 2.487 | 0.840 | 4.095 | 1.297 |
| 3/4 | RSLB20S | 46655 | 5.395 | 0.810 | 1.536 | 2.487 | 1.050 | 4.095 | 1.297 |
| 1 | RSLB30S | 46660 | 6.250 | 0.910 | 1.700 | 2.075 | 1.335 | 4.750 | 1.500 |
| 1 1/4 | RSLB40S | 46665 | 7.625 | 1.050 | 2.300 | 3.575 | 1.100 | 5.750 | 1.750 |
| 1 1/2 | RSLB50S | 46670 | 8.250 | 1.125 | 2.675 | 3.938 | 1.900 | 6.500 | 1.750 |
| 2 | RSLB60S | 45682 | 10.531 | 1.160 | 3.188 | 4.535 | 2.375 | 8.156 | 2.344 |
| 2 1/2 | RSLB70S | 45672 | 13.630 | 1.750 | 4.500 | 6.240 | 2.870 | 9.825 | 3.805 |
| 3 | RSLB80S | 46674 | 13.630 | 1.900 | 4.500 | 6.240 | 3.510 | 10.897 | 2.733 |
| 3 1/2 | RSLB90S | 46676 | 16.000 | 2.125 | 5.536 | 7.500 | 4.000 | 11.465 | 4.535 |
| 4 | RSLB100S | 46678 | 16.000 | 2.125 | 5.536 | 7.500 | 4.530 | 11.465 | 4.535 |

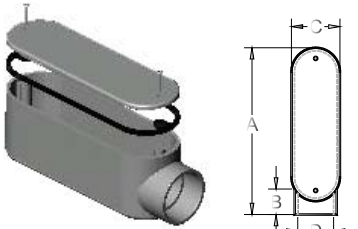
TYPE LR



| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|--------|--------|
| 1/2 | RSLR10S | 46700 | 4.337 | 0.639 | 1.268 | 2.487 | 0.840 | 4.095 | 1.297 |
| 3/4 | RSLR20S | 46705 | 5.395 | 0.810 | 1.536 | 2.487 | 1.050 | 4.095 | 1.297 |
| 1 | RSLR30S | 46710 | 6.250 | 0.910 | 1.700 | 2.075 | 1.335 | 4.750 | 1.500 |
| 1 1/4 | RSLR40S | 46715 | 7.625 | 1.050 | 2.300 | 3.575 | 1.100 | 5.750 | 1.750 |
| 1 1/2 | RSLR50S | 46720 | 8.250 | 1.125 | 2.675 | 3.938 | 1.900 | 6.500 | 1.750 |
| 2 | RSLR60S | 45683 | 10.531 | 1.160 | 3.188 | 4.535 | 2.375 | 8.156 | 2.344 |
| 2 1/2 | RSLR70S | 46725 | 13.630 | 1.750 | 4.500 | 6.240 | 2.870 | 9.825 | 3.805 |
| 3 | RSLR80S | 46728 | 13.630 | 1.900 | 4.500 | 6.240 | 3.510 | 10.897 | 2.733 |
| 3 1/2 | RSLR90S | 46735 | 16.000 | 2.125 | 5.536 | 7.500 | 4.000 | 11.465 | 4.535 |
| 4 | RSLR100S | 46738 | 16.000 | 2.125 | 5.536 | 7.500 | 4.530 | 11.465 | 4.535 |

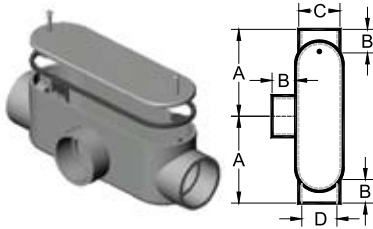
FITTINGS - BENDS (PLAIN ENDS)

TYPE E



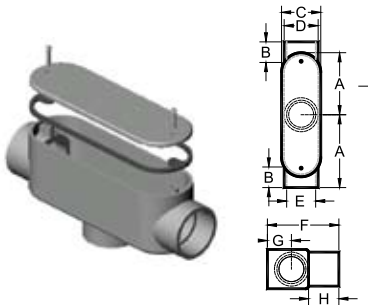
| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) |
|-----------|----------------|------------|--------|--------|--------|--------|
| 1/2 | RSE10S | 46630 | 4.337 | 0.639 | 1.268 | 0.840 |
| 3/4 | RSE20S | 46632 | 5.395 | 0.810 | 1.536 | 1.050 |
| 1 | RSE30S | 46634 | 6.250 | 0.910 | 1.700 | 1.335 |
| 1 1/4 | RSE40S | 46636 | 7.625 | 1.050 | 2.300 | 1.100 |
| 1 1/2 | RSE50S | 46638 | 8.250 | 1.125 | 2.675 | 1.900 |
| 2 | RSE60S | 46640 | 10.351 | 1.160 | 3.188 | 2.375 |
| 2 1/2 | RSE70S | 46642 | 13.630 | 1.750 | 4.500 | 2.870 |
| 3 | RSE80S | 46644 | 13.630 | 1.900 | 4.500 | 3.510 |
| 3 1/2 | RSE90S | 46646 | 16.000 | 2.125 | 5.536 | 4.000 |
| 4 | RSE100S | 46648 | 16.000 | 2.125 | 5.536 | 4.530 |

TYPE T



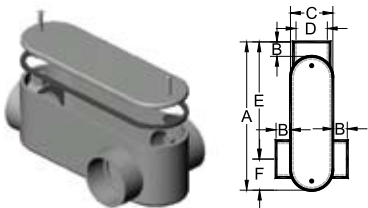
| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) |
|-----------|----------------|------------|--------|--------|--------|--------|
| 1/2 | RST10S | 45690 | 2.280 | 0.639 | 1.100 | 0.840 |
| 3/4 | RST20S | 45700 | 2.803 | 0.810 | 1.325 | 1.050 |
| 1 | RST30S | 45710 | 3.250 | 0.910 | 1.600 | 1.335 |
| 1 1/4 | RST40S | 45720 | 3.950 | 1.050 | 2.250 | 1.100 |
| 1 1/2 | RST50S | 45723 | 4.250 | 1.125 | 2.250 | 1.900 |
| 2 | RST60S | 45725 | 5.438 | 1.160 | 2.820 | 2.375 |
| 2 1/2 | RST70S | 46745 | 7.300 | 1.750 | 3.950 | 2.870 |
| 3 | RST80S | 46748 | 7.300 | 1.900 | 3.950 | 3.510 |
| 3 1/2 | RST90S | 46750 | 8.535 | 2.125 | 5.000 | 4.000 |
| 4 | RST100S | 46752 | 8.535 | 2.125 | 5.000 | 4.530 |

TYPE TB




| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) | H (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1/2 | RSTB10S | 45692 | 2.280 | 0.639 | 1.268 | 1.100 | 0.840 | 2.487 | 1.005 | 0.750 |
| 3/4 | RSTB20S | 45702 | 2.803 | 0.810 | 1.536 | 1.325 | 1.050 | 2.487 | 1.005 | 0.810 |
| 1 | RSTB30S | 45712 | 3.250 | 0.910 | 1.700 | 1.600 | 1.335 | 2.075 | 1.125 | 1.115 |
| 1 1/4 | RSTB40S | 45721 | 3.950 | 1.050 | 2.300 | 2.250 | 1.100 | 3.575 | 1.562 | 1.300 |
| 1 1/2 | RSTB50S | 45724 | 4.250 | 1.125 | 2.675 | 2.250 | 1.900 | 3.938 | 1.656 | 1.425 |
| 2 | RSTB60S | 45727 | 5.438 | 1.160 | 3.188 | 2.820 | 2.375 | 4.535 | 1.968 | 1.160 |
| 2 1/2 | RSTB70S | 46760 | 7.300 | 1.750 | 4.500 | 3.950 | 2.870 | 6.240 | 2.610 | - |
| 3 | RSTB80S | 46762 | 7.300 | 1.900 | 4.500 | 3.950 | 3.510 | 6.240 | 2.610 | - |
| 3 1/2 | RSTB90S | 46764 | 8.535 | 2.125 | 5.536 | 5.000 | 4.000 | 7.500 | 2.975 | - |
| 4 | RSTB100S | 46766 | 8.535 | 2.125 | 5.536 | 5.000 | 4.530 | 7.500 | 2.975 | - |

TYPE X



| Size (in) | Product Number | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) |
|-----------|----------------|------------|--------|--------|--------|--------|--------|--------|
| 1/2 | RSX10S | 47020 | 4.337 | 0.639 | 1.268 | 0.840 | 4.095 | 1.297 |
| 3/4 | RSX20S | 47021 | 5.395 | 0.810 | 1.536 | 1.050 | 4.095 | 1.297 |
| 1 | RSX30S | 47022 | 6.250 | 0.910 | 1.700 | 1.335 | 4.750 | 1.500 |
| 1 1/4 | RSX40S | 47023 | 7.625 | 1.050 | 2.300 | 1.100 | 5.750 | 1.750 |
| 1 1/2 | RSX50S | 47024 | 8.250 | 1.125 | 2.675 | 1.900 | 6.500 | 1.750 |
| 2 | RSX60S | 47025 | 10.531 | 1.160 | 3.188 | 2.375 | 8.156 | 2.344 |
| 2 1/2 | RSX70S | 47026 | 13.630 | 1.750 | 4.500 | 2.870 | 9.825 | 3.805 |
| 3 | RSX80S | 47027 | 13.630 | 1.900 | 4.500 | 3.510 | 10.897 | 2.733 |
| 3 1/2 | RSX90S | 47028 | 16.000 | 2.125 | 5.536 | 4.000 | 11.465 | 4.535 |
| 4 | RSX100S | 47029 | 16.000 | 2.125 | 5.536 | 4.530 | 11.465 | 4.535 |


STRAIN RELIEF CONNECTOR

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 3/4 | RSRC15 | 45685 |

THREADED STRAIN RELIEF CONNECTOR

|  <small>Comes With 6 Grommets</small> | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1/2 | RTSRC10 | 45850 |
| | 3/4 | RTSRC15 | 45855 |


PULL ELBOW

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 1/2 | RPE10 | 45535 |
| | 3/4 | RPE15 | 45538 |


GROMMETS




SOLVENT WELD END CAP

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 1/2 | RCAP10 | 44690 |
| | 3/4 | RCAP15 | 44700 |
| | 1 | RCAP20 | 44710 |
| | 1 1/4 | RCAP25 | 44720 |
| | 1 1/2 | RCAP30 | 44730 |
| | 2 | RCAP35 | 44740 |
| | 2 1/2 | RCAP40 | 44750 |
| | 3 | RCAP45 | 44760 |
| | 4 | RCAP55 | 44770 |
| | 5 | RCAP60 | 44780 |
| 6 | RCAP65 | 44782 | |


BELL ENDS (SPIGOT X FLARE) - MOULDED

|  | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1/2 | RFEB10 | 46900 |
| | 3/4 | RFEB15 | 46902 |
| | 1 | RFEB20 | 46904 |
| | 1 1/2 | RFEB25 | 46906 |
| | 1 3/4 | RFEB30 | 46908 |
| | 2 | RFEB35 | 46910 |
| | 2 1/2 | RFEB40 | 46912 |
| | 3 | RFEB45 | 46914 |
| | 3 1/2 | RFEB50 | 46916 |
| | 4 | RFEB55 | 46918 |
| 5 | RFEB60 | 46920 | |
| 6 | RFEB65 | 46922 | |


NEOPRENE O RING

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 1/2 | RE943DX | 46880 |
| | 3/4 | RE943EX | 46882 |
| | 1 | RE943FX | 46884 |
| | 1 1/4 | RE943GX | 46886 |
| | 1 1/2 | RE943HX | 46888 |
| | 2 | RE943JX | 46890 |
| | 2 1/2 | RE943KX | 46892 |
| | 3 | RE943LX | 46894 |
| 4 | RE943NX | 46896 | |


BELL ENDS (HUB X SPIGOT) - MOULDED

|  | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1/2 | REB10 | 47580 |
| | 3/4 | REB15 | 47581 |
| | 1 | REB20 | 46940 |
| | 1 1/2 | REB25 | 47582 |
| | 1 3/4 | REB30 | 46942 |
| | 2 | REB35 | 46944 |
| | 2 1/2 | REB40 | 47583 |
| | 3 | REB45 | 46946 |
| | 3 1/2 | REB50 | 46948 |
| | 4 | REB55 | 46950 |
| 5 | REB60 | 46952 | |
| 6 | REB65 | 46954 | |


POLY PLUG WITH PULLING EYE

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 2 | RPLG2 | 46960 |
| | 3 | RPLG3 | 46962 |
| | 4 | RPLG4 | 46964 |
| | 5 | RPLG5 | 46966 |
| | 6 | RPLG6 | 46968 |

REDUCER BUSHINGS

|  | Size (in) | Product No. | UPC No. |
|--|---------------|-------------|---------|
| | 3/4 X 1/2 | R1805 | 44500 |
| | 1 X 1/2 | R1805-1 | 44501 |
| | 1 X 3/4 | R1806 | 44502 |
| | 1 1/4 X 3/4 | R1807-1 | 44505 |
| | 1 1/4 X 1 | R1807 | 44504 |
| | 1 1/2 X 1 | R1808-1 | 44507 |
| | 1 1/2 X 1 1/4 | R1808 | 44506 |
| | 2 X 1 | R1809-1 | 44511 |
| | 2 X 1 1/4 | R1809 | 44510 |
| | 2 X 1 1/2 | R1810 | 44512 |
| | 2 1/2 X 2 | R1811 | 44516 |
| | 3 X 2 | R1812-1 | 44530 |
| | 3 X 2 1/2 | R1812 | 44520 |
| | 4 X 2 | R1813-1 | 44542 |
| 4 X 3 | R1813 | 44540 | |
| 4 X 3 1/2 | R1814 | 44547 | |

THREADED REDUCER BUSHINGS

|  | Size (in) | Product No. | UPC No. |
|---|-----------|-------------|---------|
| | 3/4 X 1/2 | R1825 | 44550 |
| | 1 X 1/2 | R1826 | 44560 |
| | 1 X 3/4 | R1827 | 44570 |

SINGLE GANG COVER PLATES - F SERIES



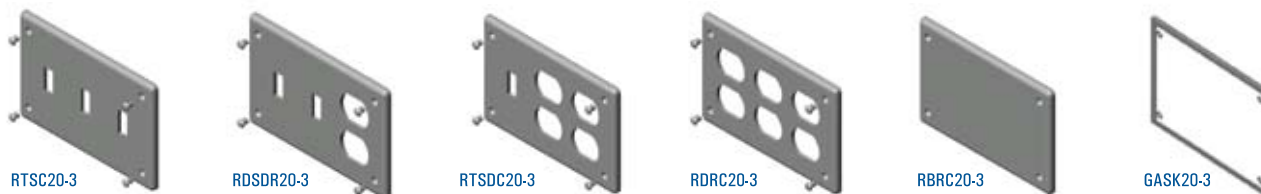
| Description | Product Number | UPC Number |
|----------------------------|----------------|------------|
| Toggle Switch | RTSC15/10 | 45845 |
| Duplex Receptacle | RDRC15/10 | 44685 |
| Single Receptacle - 15 Amp | R20RC15/10 | 47035 |
| Single Receptacle - 20 Amp | R20-3RC15/10 | 47036 |
| Single Receptacle - 30 Amp | R30-3RC15/10 | 47037 |
| Single Blank with Gasket | RBRC15/10 | 44680 |
| Gasket | GASK15/10 | 44682 |

DOUBLE GANG COVER PLATES - F SERIES



| Description | Product Number | UPC Number |
|--------------------------|----------------|------------|
| Double Switch | RTSC20-2 | 45846 |
| Combo Switch/Receptacle | RTSDC20-2 | 45847 |
| Double Duplex | RDRC20-2 | 44686 |
| Double Blank with Gasket | RBRC20-2 | 44681 |
| Gasket | GASK20-2 | 45949 |

TRIPLE GANG COVER PLATES - F SERIES



| Description | Product Number | UPC Number |
|--------------------------|----------------|------------|
| Triple Switch | RTSC20-3 | 45857 |
| Double Switch Receptacle | RSDSR20-3 | 44689 |
| Double Receptacle/Switch | RTSDC20-3 | 45858 |
| Triple Receptacle | RDRC20-3 | 44688 |
| Triple Blank with Gasket | RBRC20-3 | 44683 |
| Gasket | GASK20-3 | 45859 |

SINGLE GANG WEATHERPROOF COVER PLATES



RVSC15/10



RVSC15/10



RWTG15/10



RWGF15/10



RWTL



RVSC15/10



GASK W

| Description | Product Number | UPC Number |
|---------------------------------|----------------|------------|
| Toggle Switch Cover | RVSC15/10 | 45940 |
| Plunger Switch Cover | RVPT15/10 | 45930 |
| Toggle | RWTG15/10 | 45339 |
| Duplex Receptacle | RWDR15/10 | 45093 |
| Duplex Receptacle - White | RWDR15/10W | 45094 |
| Ground Fault Receptacle | RWGF15/10 | 45095 |
| Ground Fault Receptacle - White | RWGF15/10W | 45098 |
| Single Receptacle - 15 Amp | RWTL15 | 45470 |
| Single Receptacle - 20 Amp | RWTL20 | 45472 |
| Single Receptacle - 30 Amp | RWTL30 | 45480 |
| Single Receptacle - 50 Amp | RWTL50 | 45482 |
| Gasket | GASK W | 45484 |

DOUBLE GANG WEATHERPROOF COVER PLATES



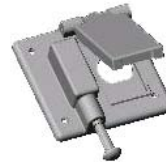
RVSC20-2



RVSC20-2



RVSDR20-2



RVSDR20-2



GASK20-2

| Description | Product Number | UPC Number |
|---------------------------|----------------|------------|
| Toggle | RVSC20-2 | 45941 |
| Plunger/GFI | RVSRC20-2 | 45947 |
| Plunger/Duplex Receptacle | RVSDR20-2 | 45945 |
| Plunger/Single Receptacle | RVSRR20-2 | 45948 |
| Gasket | GASK20-2 | 45949 |

SINGLE GANG BOXES - F SERIES



FS



FSS



FSC



FSCC

| Description | Product Number | UPC Number | Volume (in ³) |
|-------------|----------------|------------|---------------------------|
| 1/2" FS | RFS10 | 45200 | 17.0 |
| 3/4" FS | RFS15 | 45210 | 17.0 |
| 1/2" FSS | RFSS10 | 45240 | 17.5 |
| 3/4" FSS | RFSS15 | 45250 | 17.5 |
| 1/2" FSC | RFSC10 | 45220 | 16.3 |
| 3/4" FSC | RFSC15 | 45230 | 16.3 |
| 1/2" FSCC | RFSCC10 | 45233 | 17.0 |
| 3/4" FSCC | RFSCC15 | 45235 | 17.0 |

SINGLE GANG DEEP BOXES - FD SERIES



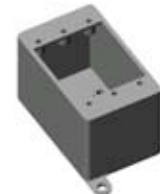
FDS



FDC



BLANK



347 VOLT

| Description | Product Number | UPC Number | Volume (in ³) |
|--|----------------|------------|---------------------------|
| Outside Dimensions: Length = 4.5", Width = 6.6", Height = 2.5", except BLANK, L = 4.5", W = 6.6", H = 3.0" | | | |
| 1/2" FSC | RFSC3-10 | 45224 | 56.0 |
| 3/4" FSC | RFSC3-15 | 45232 | 56.0 |
| 1" FSC | RFSC3-20 | 45228 | 56.0 |
| 1/2" FS | RFS3-10 | 45208 | 54.0 |
| 3/4" FS | RFS3-15 | 45218 | 54.0 |
| 1" FS | RFS3-20 | 45219 | 54.0 |
| BLANK | RFD-3 | 45155 | 73.8 |

DOUBLE GANG BOXES - F SERIES



| Description | Product Number | UPC Number | Volume (in ³) |
|---|----------------|------------|---------------------------|
| Outside Dimensions: Length = 4.5", Width = 4.75", Height = 2.5", except BLANK, L=4.75", W=4.75", H=3.0" | | | |
| 1/2" FS | RFS2-10 | 45205 | 39.5 |
| 3/4" FS | RFS2-15 | 45215 | 39.5 |
| 1" FS | RFS2-20 | 45216 | 39.5 |
| 1/2" FSS | RFSS2-10 | 45242 | 37.0 |
| 3/4" FSS | RFSS2-15 | 45244 | 37.0 |
| 1" FSS | RFSS2-20 | 45246 | 37.0 |
| 1/2" FSC | RFSC2-10 | 45222 | 37.0 |
| 3/4" FSC | RFSC2-15 | 45231 | 37.0 |
| 1" FSC | RFSC2-20 | 45226 | 37.0 |
| 1/2" FSCC | RFSCC2-10 | 45234 | 36.0 |
| 3/4" FSCC | RFSCC2-15 | 45238 | 36.0 |
| 1" FSCC | RFSCC2-20 | 45239 | 36.0 |
| BLANK | RFD-D | 45150 | 52.0 |

TRIPLE GANG BOXES - F SERIES



| Description | Product Number | UPC Number | Volume (in ³) |
|--|----------------|------------|---------------------------|
| Outside Dimensions: Length = 4.5", Width = 6.6", Height = 2.5", except BLANK, L = 4.5", W = 6.6", H = 3.0" | | | |
| 1/2" FSC | RFSC3-10 | 45224 | 56.0 |
| 3/4" FSC | RFSC3-15 | 45232 | 56.0 |
| 1" FSC | RFSC3-20 | 45228 | 56.0 |
| 1/2" FS | RFS3-10 | 45208 | 54.0 |
| 3/4" FS | RFS3-15 | 45218 | 54.0 |
| 1" FS | RFS3-20 | 45219 | 54.0 |
| BLANK | RFD-3 | 45155 | 73.8 |

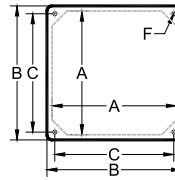
OCTAGONAL BOXES

| | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 4 X 1 1/2 | ROB15/10 | 45520 |
| | 4 X 2 | ROB20 | 45525 |
| | 3/4 | RK015 | 45450 |
| | 1 | RK020 | 45455 |

OCTAGONAL BOX EXTENSION RINGS

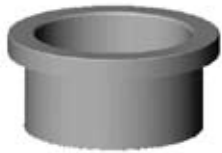
| | Size (in) | Product No. | UPC No. |
|--|-----------|-------------|---------|
| | 1 | RXR20 | 46490 |
| | 2 | RXR35 | 46495 |
| | 2 | RXR35 | 46495 |

JUNCTION BOXES WITH GASKET



| Nominal Size (in) | Product Number | UPC Number | Inside Length & Width (A) (in) | Outside Length & Width (B) (in) | Length Screw to Screw (C) (in) | Outside Height (E) (in) | Inside Height (D) (in) | Screw Size (F) | Volume (in ³) |
|-------------------|----------------|------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|------------------------|----------------|---------------------------|
| 4 x 4 x 2 | RJB442 | 45300 | 3.675 | 4.000 | 3.450 | 2.125 | 2.000 | 8-32 | 25.4 |
| 4 x 4 x 4 | RJB444 | 45310 | 3.675 | 4.000 | 3.450 | 4.188 | 3.750 | 8-32 | 47.5 |
| 4 x 4 x 6 | RJB446 | 45315 | 3.675 | 4.000 | 3.450 | 6.225 | 6.000 | 8-32 | 76.1 |
| 5 x 5 x 2 | RJB552 | 45320 | 4.680 | 5.000 | 4.485 | 2.000 | 1.845 | 8-32 | 38.7 |
| 6 x 6 x 4 | RJB664 | 45330 | 6.000 | 6.375 | 5.813 | 4.188 | 4.000 | 10-32 | 139.5 |
| 6 x 6 x 6 | RJB666 | 45335 | 6.000 | 6.375 | 5.813 | 6.188 | 6.000 | 10-32 | 209.3 |
| 8 x 8 x 4 | RJB884 | 45340 | 8.075 | 8.625 | 7.996 | 4.230 | 4.005 | 1/4-20 | 258.6 |
| 8 x 8 x 7 | RJB887 | 45350 | 8.100 | 8.625 | 7.996 | 7.250 | 7.035 | 1/4-20 | 455.6 |
| 12 x 12 x 4 | RJB12124 | 45280 | 12.085 | 12.580 | 11.874 | 4.256 | 4.030 | 1/4-20 | 578.3 |
| 12 x 12 x 6 | RJB12126 | 45290 | 12.085 | 12.580 | 11.874 | 6.240 | 6.025 | 1/4-20 | 864.6 |
| 12 x 12 x 8 | RJB12128 | 45295 | 12.085 | 12.580 | 11.874 | 8.250 | 8.025 | 1/4-20 | 1151.6 |

JUNCTION BOX ADAPTERS



| Size (in) | Product No. | UPC No. |
|-----------|-------------|---------|
| 1/2 | RJBA10 | 45360 |
| 3/4 | RJBA15 | 45370 |
| 1 | RJBA20 | 45380 |
| 1 1/4 | RJBA25 | 45390 |
| 1 1/2 | RJBA30 | 45400 |
| 2 | RJBA35 | 45410 |
| 2 1/2 | RJBA40 | 45420 |
| 3 | RJBA45 | 45430 |
| 3 1/2 | RJBA50 | 45435 |
| 4 | RJBA55 | 45440 |

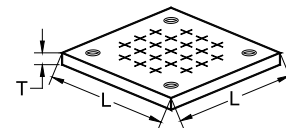
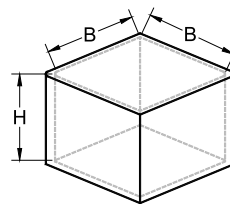
DUPLEX FLOOR BOXES & COVER



| Size (in) | Product No. | UPC No. |
|----------------------------|-------------|---------|
| 4 x 3/4 | RFDB4 | 46980 |
| 2 x 3/4, 2 x 1 | RFDB2 | 46982 |
| Polycarbonate Bronze Cover | RFDBC | 46984 |

*Includes Leveling Ring

HIGHWAY BOXES



| Nominal Size (in) | Product Number | UPC Number | Box Inside Length & Width (B) (in) | Box Inside Depth (H) (in) | Lid Length & Width (L) (in) | Thickness of Lid (T) (in) | Volume (in ³) |
|-------------------|----------------|------------|------------------------------------|---------------------------|-----------------------------|---------------------------|---------------------------|
| 6 x 6 x 4 | H664 | 47040 | 6.0 | 4.25 | 9.0 | 0.60 | 139.5 |
| 6 x 6 x 6 | H666 | 47041 | 6.0 | 6.25 | 9.0 | 0.60 | 209.3 |
| 8 x 8 x 4 | H884 | 47042 | 8.0 | 4.25 | 11.5 | 0.75 | 258.6 |
| 8 x 8 x 6 | H886 | 47043 | 8.0 | 6.25 | 11.5 | 0.75 | 400.0 |
| 8 x 8 x 7 | H887 | 47044 | 8.0 | 7.25 | 11.5 | 0.75 | 455.6 |
| 8 x 8 x 7 | H887-A | 47045 | 8.0 | 7.25 | 11.5 | 0.75 | 418.4 |



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