

Rigid PVC Conduit Pipe & Fittings

A System for Residential,
Industrial, Commercial and
Institutional Applications



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Note: This brochure is not intended to assume the authority of the Design Engineer. Actual jobsite conditions will vary significantly. The sole responsibility for all design and installation decisions lies with the Design Engineer. All local health and safety regulations must be followed.

RIGID PVC CONDUIT PIPE & FITTINGS

A system for residential, industrial, commercial and institutional applications.

Product Description & Applications

We manufacture a complete line of Rigid PVC Conduit pipe and fittings for electrical applications. Our products are designed to reduce labour and maintenance costs, while offering superior performance.

Products are certified by the Canadian Standards Association (CSA) and Underwriters Laboratories (UL) for use in above and below ground applications. Our Rigid PVC conduit pipe and fittings are available in 12 to 150mm (0- to 6-inch) diameters and 3- or 6-metre (10- or 20-foot) lengths.

Standards and Codes

Rigid PVC Conduit pipe and fittings are certified to CSA Standards as noted below. Our Rigid PVC conduit pipe and fittings shall be installed according to the Canadian Electrical Code (CEC) Part I, Rules 12-1100 - 12-1122 and the National Electrical Code (NEC) Article 352.

Pipe



C22.2 No. 211.2



UL 651



Conforms to NEMA TC2

Fittings



C22.2

No. 18.2, 85 (Boxes) UL 514C (Boxes)
No. 40 (Electrical Encl.) UL 50 (Electrical Encl.)
No. 42.1 (Covers) UL 514D (Covers)
No. 85 (Fittings) UL 651 (Fittings)



Features and Benefits

Saves Labour

Rigid PVC Conduit pipe and fittings are easy to install, cut and join.

Easy Wire Pulls

The conduit's smooth interior surface reduces friction and prevents damage to wires when pulling wire and conductors for long runs and even through 90° bends.

Lightweight Materials

Rigid PVC Conduit is easier to move and handle because it is approximately one-fifth the weight of steel and half the weight of aluminium.

| Approximate Weight Comparison | | | |
|-------------------------------|------------------------|-----------------------------|--------------------------|
| Size mm (in) | PVC lb/100ft (kg/m) | Aluminum lb/100ft (kg/m) | Steel lb/100ft (kg/m) |
| 6 (1/2) | 16.1 (0.24) | 16.1 (0.24) | 79 (1.20) |
| 19 (3/4) | 21.5 (0.32) | 21.5 (0.32) | 105 (1.55) |
| 25 (1) | 31.9 (0.47) | 31.9 (0.47) | 153 (2.30) |
| 32 (1 1/4) | 43.8 (0.65) | 43.8 (0.65) | 201 (3.00) |
| 38 (1 1/2) | 52.3 (0.78) | 52.3 (0.78) | 249 (3.70) |
| 50 (2) | 70.3 (1.05) | 70.3 (1.05) | 334 (5.00) |
| 63 (2 1/2) | 112.0 (1.61) | 112.0 (1.61) | 527 (7.85) |
| 75 (3) | 146.7 (2.18) | 146.7 (2.18) | 690 (10.25) |
| 90 (3 1/2) | 176.4 (2.63) | 176.4 (2.63) | 831 (12.40) |
| 100 (4) | 208.9 (3.11) | 208.9 (3.11) | 982 (14.60) |
| 125 (5) | 283.4 (4.22) | 283.4 (4.22) | 1,344 (20.40) |
| 150 (6) | 368.0 (5.48) | 368.0 (5.48) | 1,771 (26.35) |

Simplifies Direct Burial

Rigid PVC Conduit does not require additional protection for direct burial installations according to the Canadian Electrical Code (CEC) and the National Electrical Code (NEC). Normal construction practices should be followed for trenching and backfill operations.

Non-Conductive

Rigid PVC Conduit is non-conductive.

Long Life

Rigid PVC Conduit and fittings resist acids, alkalis, salt solutions and most other chemicals. (Refer to the Chemical Resistance Guide for detailed information.) There is no risk of corrosion when exposed to naturally corrosive soil conditions, electrochemical or galvanic environments. Rigid PVC Conduit has achieved sunlight resistance as per the requirements of the Electrical Code.

FT-4 Rating

Rigid PVC Conduit pipe has an FT-4 Rating and can be used in non-combustible construction as per Part 3 of the National Building Code of Canada (NBC).

Installation Guidelines

Cutting

Rigid PVC Conduit can easily be cut with a hacksaw, a fine-toothed handsaw or PVC conduit cutters. For conduit with more than a 50mm (2-inch) diameter, use a mitre box or saw guide to ensure a square cut. Deburr the end using a knife or file.

Bending

It may be necessary to create bends in the field by heating and deforming Rigid PVC Conduit. To accomplish this, the following guidelines should be followed:

- For heating the Rigid PVC Conduit, use a heat gun or some other flameless heat source. Do not use an open flame to heat the conduit. Rigid PVC Conduit must be heated to approximately 127°C (260°F) in order to bend without kinking.
- Heat a length of conduit equal to approximately 10 times the nominal diameter.
- Once the Rigid PVC Conduit has been adequately heated, bend it to the required angle plus 3 extra degrees. The additional angle will accommodate the “spring back” which will occur during cooling.
- After bending of the conduit is completed, immediately cool the bend using water or cold air.
- According to the Canadian Electrical Code (CEC) and the National Electrical Code (NEC), the minimum bending radius for rigid conduit is as shown in the table below.

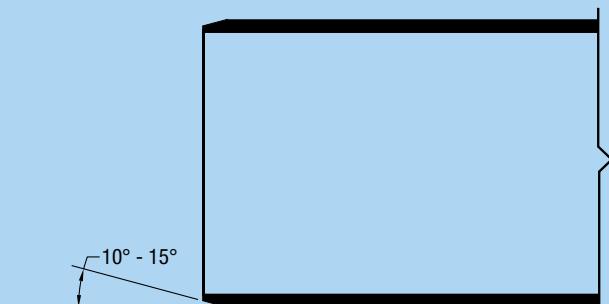


Procedure for Solvent Welding Joints

- Use solvent cement and primer prior to expiration date marked on container.
 - Above 0°C ambient temperature, joints may be assembled without the use of primer, provided adequate penetration and softening of the pipe/fitting surface can be achieved with solvent cement alone.
1. Assemble materials for the job, including correct solvent cement, primer and correctly sized applicator.
 2. Cut pipe as square as possible using a hand saw and miter box or mechanical saw. Do not use a diagonal cut, as it reduces the bonding area in the joint.
 3. If plastic tubing cutters are used, care must be taken to remove any raised bead at the end of the pipe, caused by cutting. A file or reamer may be used to remove the bead.
 4. Use a knife, file or reamer to remove burrs from the inside and outside of the pipe end, as these will hinder the integrity of the joint. All sharp edges should be removed from the inside and outside edges of the pipe to prevent the pipe from pushing the solvent cement into the fitting socket, thereby causing a weak spot to form.

The pipe end should be chamfered, as shown below.

Chamfered Pipe



Procedure for Solvent Welding Joints Continued

5. All dirt, grease and moisture should be removed from the pipe and socket by thoroughly wiping with a clean, dry cloth.
6. Dry fit pipe and fitting joints prior to cementing. For proper interference fit, the pipe should go easily into the socket approximately to of the socket depth. If this is not the case, other pipe or fittings should be used.
7. The applicator should be sized according to the size of pipe and fittings being joined. The brush width of the applicator should be equal to approximately $\frac{1}{2}$ of the pipe diameter.
8. Primer is used to penetrate and soften the surfaces so that they will fuse together under a wide variety of conditions. The penetration or softening can be checked by dragging the edge of a knife or sharp object over the coated surface. If a few thousandths of an inch of the primed surface can be scratched or scraped away, proper penetration has occurred. Varying weather conditions affect priming and cementing action and may require more time or repeated applications to either or both surfaces.
9. If using primer, use the correct applicator size (see #7) and aggressively work the primer into the socket, keeping the surface and applicator wet until the surface has softened, re-dipping the applicator as required. When the surface is primed, remove any puddles of primer from the socket.
10. Aggressively work the primer on to the end of the pipe, to a point $\frac{1}{2}$ " beyond the depth of the socket.
11. Perform a second application of primer in the socket.
12. While the surfaces are still wet, the appropriate solvent cement should be applied.
13. Using the correct applicator size, aggressively work a full, even layer of cement onto the pipe end to a point equal to the depth of the socket. Do not brush out to a thin paint type layer, as this will dry within a few seconds.
14. Aggressively work a medium layer of cement into the fitting socket; avoid puddling cement in the socket. On the pipe end, do not coat beyond the socket depth or allow cement to run down into the pipe beyond the socket.
15. Apply a second full, even layer of cement on the pipe.
16. Immediately, while the cement is still wet, assemble the joint. Use enough force to ensure that the pipe is fully inserted into the socket. Twist the pipe a . turn as it is being inserted.
17. Hold the joint together for approximately 30 seconds to avoid push out.

18. After assembly, inspect the joint to ensure that there is a ring or bead of cement completely around the juncture of the pipe and socket. If there are voids in this ring, sufficient cement was not applied and the joint may be defective.
19. Remove the excess cement from the pipe and socket (including the ring or bead) using a cloth. Avoid disturbing or moving the joint.
20. Handle newly cemented joints with care until initial set has taken place. Follow set and cure times before handling or testing the system.

Pipe Dimensions

| Nominal Size mm (in) | Avg. Outside Diameter mm (in) | Avg. Inside Diameter mm (in) | Avg. Wall Thickness mm (in) | Approx. Weight lb/100ft (kg/m) |
|----------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------|
| 12 (1/2) | 21 (0.840) | 15 (0.608) | 3 (0.116) | 16.1 (0.24) |
| 19 (3/4) | 27 (1.050) | 21 (0.810) | 3 (0.120) | 21.5 (0.32) |
| 25 (1) | 33 (1.315) | 26 (1.033) | 4 (0.141) | 31.9 (0.47) |
| 32 (1 1/4) | 42 (1.660) | 35 (1.362) | 4 (0.149) | 43.8 (0.65) |
| 38 (1 1/2) | 48 (1.900) | 40 (1.592) | 4 (0.154) | 52.3 (0.78) |
| 50 (2) | 60 (2.375) | 52 (2.049) | 4 (0.163) | 70.3 (1.05) |
| 63 (2 1/2) | 73 (2.875) | 62 (2.445) | 5 (0.215) | 112.0 (1.61) |
| 75 (3) | 89 (3.500) | 77 (3.042) | 6 (0.229) | 146.7 (2.18) |
| 90 (3 1/2) | 102 (4.000) | 89 (3.520) | 6 (0.240) | 176.4 (2.63) |
| 100 (4) | 114 (4.500) | 102 (3.998) | 6 (0.251) | 208.9 (3.11) |
| 125 (5) | 141 (5.565) | 127 (5.017) | 7 (0.274) | 283.4 (4.22) |
| 150 (6) | 168 (6.625) | 153 (6.031) | 8 (0.297) | 368.0 (5.48) |

Specification

All wiring shall be installed in Rigid PVC Conduit and secured with proper fittings. All conduit and fittings shall be manufactured by, Pipe & Fittings Solutions. All outlets, pull boxes and junction points.

Exposed conduit shall be securely attached and supported with straps that are installed at the recommended spacing 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 14°C (25°F), expansion joints shall be installed according to the manufacturer's recommendations.

If Rigid PVC Conduit is embedded in concrete or direct buried, support straps are not required.

Solvent Cementing

All connections should be made using and applying NAPCO solvent cement.

Set Times

| Average Initial Set Times | | | |
|---------------------------|--|--------------------------------------|--------------------------------------|
| Temperature Range | Pipe Sizes $\frac{1}{2}''$ to $1\frac{1}{4}''$ | Pipe Sizes $1\frac{1}{2}''$ to $2''$ | Pipe Sizes $2\frac{1}{2}''$ to $6''$ |
| 15°C to 40°C | 2 min. | 5 min. | 30 min. |
| 5°C to 15°C | 5 min. | 10 min. | 2 hrs. |
| -16°C to 5°C | 10 min. | 15 min. | 12 hrs. |

Joint Cure Schedule

| Average Joint Cure Times | | | |
|--|--|--------------------------------------|--------------------------------------|
| Temperature Range During Assembly & Cure Periods | Pipe Sizes $\frac{1}{2}''$ to $1\frac{1}{4}''$ | Pipe Sizes $1\frac{1}{2}''$ to $2''$ | Pipe Sizes $2\frac{1}{2}''$ to $6''$ |
| 15°C to 40°C | 2 min. | 5 min. | 30 min. |
| 5°C to 15°C | 5 min. | 10 min. | 2 hrs. |
| -16°C to 5°C | 10 min. | 15 min. | 12 hrs. |

In damp or humid weather allow 50% more cure time.

Estimated Solvent Cement Requirements

| Average Number of Joints per Litre of Solvent Cement | | | | | | | | | |
|--|-----------------|-----------------|-----|------------------|----|------------------|----|----|----|
| Pipe/Fitting Diameter | $\frac{1}{2}''$ | $\frac{3}{4}''$ | 1" | $1\frac{1}{2}''$ | 2" | $2\frac{1}{2}''$ | 3" | 4" | 6" |
| Number of Joints | 300 | 200 | 125 | 90 | 60 | 40 | 40 | 30 | 10 |

Estimated Primer Requirements

| Average Number of Joints per Litre of Primer | | | | | | | | | |
|--|-----------------|-----------------|-----|------------------|-----|------------------|----|----|----|
| Pipe/Fitting Diameter | $\frac{1}{2}''$ | $\frac{3}{4}''$ | 1" | $1\frac{1}{2}''$ | 2" | $2\frac{1}{2}''$ | 3" | 4" | 6" |
| Number of Joints | 600 | 400 | 250 | 180 | 120 | 80 | 80 | 60 | 20 |

Solvent Cementing in Cold Weather:

- Store pipe and fittings in a heated area. Prefabricate as much of the system as possible in a heated area.
- When not in use, store sealed solvent cement and primer between 5°C and 21°C. Do not use open flame or electric heaters to warm cements and primers.
- Take care to remove moisture, ice and snow from the mating surfaces.

Solvent Cementing in Hot Weather:

- At the time of assembly, the surface temperature of the mating surfaces should not exceed 45°C. Shade or shelter the joint surfaces from direct sunlight for at least 1 hour

prior to joining and during the joining process. If necessary, swab the mating surfaces with clean, wet rags to reduce the surface temperature (thoroughly dry surfaces before applying primer or cement).

- Make joints during the cooler early morning hours.
- Apply cement quickly and join pipe to fitting as quickly as possible after applying the cement.
- Keep solvent cement container closed or covered when not in use, to minimize solvent loss.

Solvent Cementing in Wet Conditions:

- Mating surfaces must be dry when the joint is made.
- Work under a cover or canopy to keep rain off pipe and fittings.
- Work quickly after drying the pipe and fitting to avoid condensation.
- Allow a longer cure time before the system is tested or used.

Storage and Handling of Solvent Cement and Primer:

- Solvent cement and primer contain highly flammable solvents.

Follow all specific safety precautions provided on container label and Material Safety Data Sheet.

- Keep primer and solvent cement away from heat, sparks and open flame.
- Keep containers tightly closed except when in use.
- Ensure proper ventilation of work area and avoid inhaling solvent vapours.
- Where the possibility of splashing exists, wear proper eye protection or a face shield.
- Avoid contact with skin.

Support Straps

Rigid PVC conduit must be supported with straps when installed in above ground applications. These straps should be installed snugly, while allowing linear movement of the conduit. See the table below for recommended maximum spacing of support straps.

| Maximum Recommended Spacing of Support Straps | | |
|---|--------------------------------|--------------------------------|
| Nominal Size mm (in) | CEC Recommended Spacing ft (m) | NEC Recommended Spacing ft (m) |
| 16 ($\frac{1}{2}$) | 2 $\frac{1}{2}$ (0.75) | 3 (0.91) |
| 21 ($\frac{3}{4}$) | 2 $\frac{1}{2}$ (0.75) | 3 (0.91) |
| 27 (1) | 2 $\frac{1}{2}$ (0.75) | 3 (0.91) |
| 35 ($1\frac{1}{4}$) | 4 (1.20) | 5 (1.50) |
| 41 ($1\frac{1}{2}$) | 4 (1.20) | 5 (1.50) |
| 53 (2) | 6 (1.80) | 5 (1.50) |
| 63 ($2\frac{1}{2}$) | 6 (1.80) | 3 - 6 (1.80) |
| 78 (3)-129 (5) | 7 (2.10) | 3 $\frac{1}{2}$ - 5 (2.10) |
| 155 (6) | 8 (2.50) | 8 (2.50) |

Storing Conduit Pipe and Fittings

Store Rigid PVC conduit pipe and fittings at the same temperature. Otherwise they may expand and contract at different rates and become incompatible.

Maximum Operating Temperatures

According to the Canadian Electrical Code (CEC), Rigid PVC conduit is intended for use at a continuous operating temperature of 75°C (167°F). For US applications, our Rigid PVC conduit is rated for use with 90°C wiring, according to the requirements of the NEC.

Ambient Temperatures

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

Expansion Joints

According to the CEC, if the amount of expansion expected due to temperature variance during and after construction is more than 45mm, expansion joints must be used.

Expected Expansion

The coefficient of linear expansion for Rigid PVC conduit is as follows:

3×10^w in (expansion/contraction) / in (pipe length) /°F (change in temperature),

5.4×10^{-5} mm (expansion/contraction)/mm (pipe length)/°C (change in temperature)



Note:

The following chart shows the amount of expansion expected with various pipe lengths/temperature changes. If the Rigid PVC Conduit is installed in an exposed location, 17°C (30°F) should be added to the amount of temperature change (T) due to the effects of radiant heat.

Pipe Dimensions

| ΔT (°C) | Expansion/Contraction of PVC (mm) | | | | | | | | | |
|---------|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Length of Pipe Run (m) | | | | | | | | | |
| 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | |
| 5 | 0.54 | 1.08 | 1.62 | 2.16 | 2.70 | 3.24 | 3.78 | 4.32 | 4.86 | 5.40 |
| 10 | 1.08 | 2.16 | 3.24 | 4.32 | 5.40 | 6.48 | 7.56 | 8.64 | 9.72 | 10.80 |
| 15 | 1.62 | 3.24 | 4.86 | 6.48 | 8.10 | 9.72 | 11.34 | 12.96 | 14.58 | 16.20 |
| 20 | 2.16 | 4.32 | 6.48 | 8.64 | 10.80 | 12.96 | 15.12 | 17.28 | 19.44 | 21.60 |
| 25 | 2.70 | 5.40 | 8.10 | 10.80 | 13.50 | 16.20 | 18.90 | 21.60 | 24.30 | 27.00 |
| 30 | 3.24 | 6.48 | 9.72 | 12.96 | 16.20 | 19.44 | 22.68 | 25.92 | 29.16 | 32.40 |
| 35 | 3.78 | 7.56 | 11.34 | 15.12 | 18.90 | 22.68 | 26.46 | 30.24 | 34.02 | 37.80 |
| 40 | 4.32 | 8.64 | 12.96 | 17.28 | 21.60 | 25.92 | 30.24 | 34.56 | 38.88 | 43.20 |
| 45 | 4.86 | 9.72 | 14.58 | 19.44 | 24.30 | 29.16 | 34.02 | 38.88 | 43.74 | 48.60 |
| 50 | 5.40 | 10.80 | 16.20 | 21.60 | 27.00 | 32.40 | 37.80 | 43.20 | 48.60 | 54.00 |

| ΔT (°C) | Expansion/Contraction of PVC (in) | | | | | | | | | |
|---------|-----------------------------------|------|------|------|------|------|------|------|------|------|
| | Length of Pipe Run (ft) | | | | | | | | | |
| 5 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |
| 10 | 0.02 | 0.04 | 0.05 | 0.07 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.18 |
| 15 | 0.03 | 0.05 | 0.08 | 0.11 | 0.14 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 |
| 20 | 0.04 | 0.07 | 0.11 | 0.14 | 0.18 | 0.22 | 0.25 | 0.29 | 0.32 | 0.36 |
| 25 | 0.05 | 0.09 | 0.14 | 0.18 | 0.23 | 0.27 | 0.32 | 0.36 | 0.41 | 0.45 |
| 30 | 0.05 | 0.11 | 0.16 | 0.22 | 0.27 | 0.32 | 0.38 | 0.43 | 0.49 | 0.54 |
| 35 | 0.06 | 0.13 | 0.19 | 0.25 | 0.32 | 0.38 | 0.44 | 0.50 | 0.57 | 0.63 |
| 40 | 0.07 | 0.14 | 0.22 | 0.29 | 0.36 | 0.43 | 0.50 | 0.58 | 0.65 | 0.72 |
| 45 | 0.08 | 0.16 | 0.24 | 0.32 | 0.41 | 0.49 | 0.57 | 0.65 | 0.73 | 0.81 |
| 50 | 0.09 | 0.18 | 0.27 | 0.36 | 0.45 | 0.54 | 0.63 | 0.72 | 0.81 | 0.90 |

Required Number of Expansion Joints

The following table shows the amount of travel that is available with each trade size of NAPCO Rigid PVC conduit expansion joints:

| Part Number | Description in | Description mm (in) |
|-------------|------------------------|---------------------|
| REJ10 | 1/2" Expansion Joint | 102 (4) |
| REJ15 | 3/4" Expansion Joint | 102 (4) |
| REJ20 | 1" Expansion Joint | 102 (4) |
| REJ25 | 1 1/4" Expansion Joint | 102 (4) |
| REJ30 | 1 1/2" Expansion Joint | 102 (4) |
| REJ35 | 2" Expansion Joint | 102 (4) |
| REJ40 | 2 1/2" Expansion Joint | 102 (4) |
| REJ45 | 3" Expansion Joint | 204 (8) |
| REJ50 | 3 1/2" Expansion Joint | 204 (8) |
| REJ55 | 4" Expansion Joint | 204 (8) |
| REJ60 | 5" Expansion Joint | 204 (8) |
| REJ65 | 6" Expansion Joint | 204 (8) |

The required number of expansion joints can be calculated using the following formula:

$$\# \text{ Expansion Joints Required} = \frac{\text{Total Expected Amount of Expansion (in)}}{\text{Expansion Joint Travel Allowance (in)}}$$

$$\# \text{ Expansion Joints Required} = \frac{\text{Total Expected Amount of Expansion (mm)}}{\text{Expansion Joint Travel Allowance (mm)}}$$

The number of expansion joints calculated above should be rounded up to the nearest whole number.

Setting the Piston Opening

Expansion joints must be installed such that they allow for both expansion and contraction of the conduit. The piston of the expansion joint must be set at the correct position to allow for this linear movement. To determine the correct position for the piston at the time and temperature of installation, the following formula should be used:

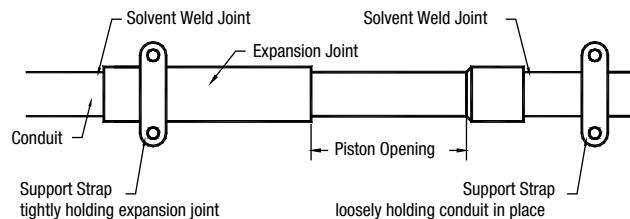
$$\text{Piston Setting (in)} = \frac{(\text{Max. Temp. } ^\circ\text{F} - \text{Install. Temp. } ^\circ\text{F})}{\text{Total Expected Temperature Change } ^\circ\text{F}} \times \left[\frac{\text{Expansion Joint Expansion Allow. (in)}}{\text{Expansion Allow. (in)}} \right]$$

$$\text{Piston Setting (mm)} = \frac{(\text{Max. Temp. } ^\circ\text{C} - \text{Install. Temp. } ^\circ\text{C})}{\text{Total Expected Temperature Change } ^\circ\text{C}} \times \left[\frac{\text{Expansion Joint Expansion Allow. (mm)}}{\text{Expansion Allow. (mm)}} \right]$$

Installation Guidelines

- Securely fasten the expansion joint barrel so that it does not shift. Loosely connect the conduit so that it is free to move.
- To function properly, expansion joints should be installed near a fixed point.
- It is better to use more expansion joints than not enough, since problems are difficult to correct 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, install with the piston at the bottom to prevent dirt and water from getting inside the joint

Installation Example



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:

There are two options available:

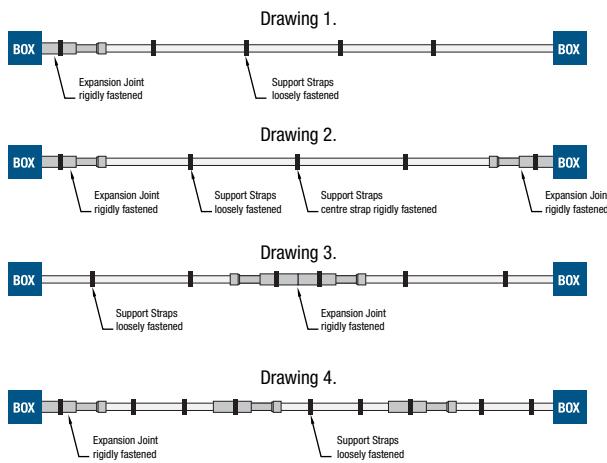
- Firmly fasten one expansion joint near each end of the run and firmly fasten the conduit at the centre. Support the rest of the conduit with straps allowing for movement of the conduit. (See Drawing 2)
- Firmly fasten the expansion joints back-to-back at the centre of the run. The conduit should be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

If three or more expansion joints are required:

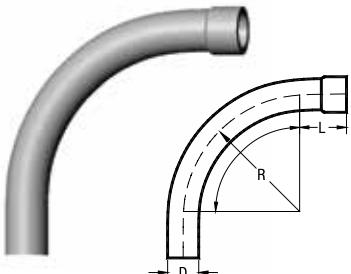
Evenly space the expansion joints along the run of Rigid PVC conduit. Tightly fasten each expansion joint and support the conduit with straps. Do not restrict the movement of the conduit.

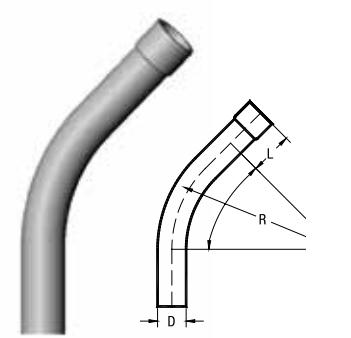
*For information on Maximum Recommended Spacing of Support Straps, see page 4.

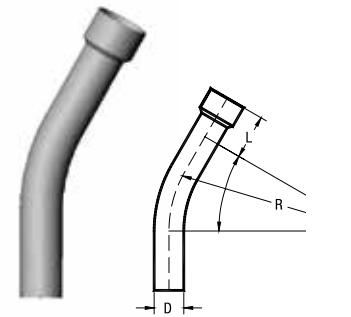
Drawings 1-4

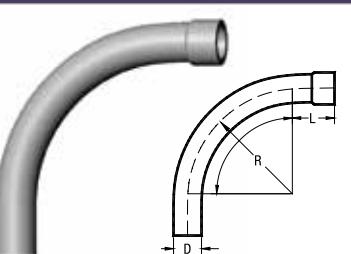


Fittings – Bends (Bell Ends)

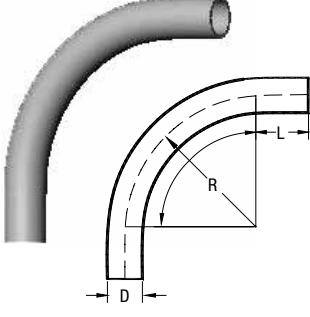
| 90° Elbows - Bell End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|------------|--------------|------------|-------------------|-----------------|-----------------|
|  | 1/2 | REE1090 | 46120 | 0.840 | 1.500 | 4.00 |
| | 3/4 | REE1590 | 46150 | 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 |

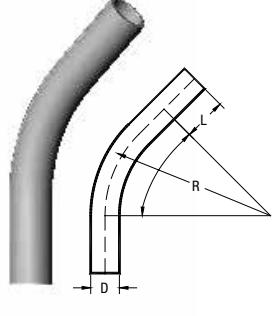
| 45° Elbows - Bell End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|--|------------|--------------|------------|-------------------|-----------------|-----------------|
|  | 1/2 | REE1045 | 46120 | 0.840 | 1.500 | 4.00 |
| | 3/4 | REE1545 | 46150 | 1.050 | 1.500 | 4.50 |
| | 1 | REE2045 | 46180 | 1.315 | 1.875 | 5.75 |
| | 1 1/4 | REE2545 | 46210 | 1.660 | 2.000 | 7.25 |
| | 1 1/2 | REE3045 | 46240 | 1.900 | 2.000 | 8.25 |
| | 2 | REE3545 | 46270 | 2.375 | 2.000 | 9.50 |
| | 2 1/2 | REE4045 | 46330 | 2.875 | 3.000 | 10.50 |
| | 3 | REE4545 | 46360 | 3.500 | 3.125 | 13.00 |
| | 3 1/2 | REE5045 | 46390 | 4.000 | 3.250 | 15.00 |
| | 4 | REE5545 | 46420 | 4.500 | 3.375 | 16.00 |
| | 5 | REE6045 | 46440 | 5.565 | 3.625 | 24.00 |
| | 6 | REE6545 | 46460 | 6.625 | 3.750 | 30.00 |

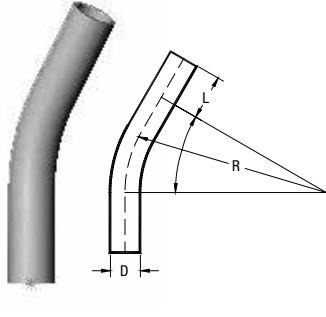
| 30° Elbows - Bell End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|------------|--------------|------------|-------------------|-----------------|-----------------|
|  | 1/2 | REE1030 | 46100 | 0.840 | 1.500 | 4.00 |
| | 3/4 | REE1530 | 46130 | 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 |

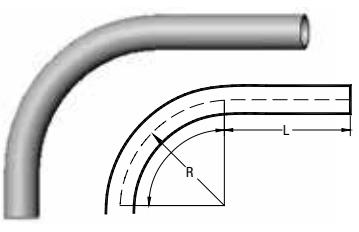
| Utilities 90° Elbows - Bell End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|------------|--------------|------------|-------------------|-----------------|-----------------|
|  | 2 | REE2-24 | 46501 | 2.375 | 41.20 | 24.00 |
| | 2 | REE2-36 | 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 |

Bends (Plain Ends)

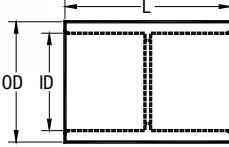
| 90° Elbows - Plain End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|-------------------|---------------------|-------------------|--------------------------|------------------------|------------------------|
|  | 1/2 | REE1090PE | 46120 | 0.840 | 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 |

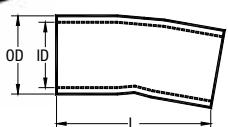
| 45° Elbows - Plain End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|--|-------------------|---------------------|-------------------|--------------------------|------------------------|------------------------|
|  | 1/2 | REE1045PE | 46110 | 0.840 | 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 | 46415 | 4.500 | 3.375 | 16.00 |
| | 5 | REE6045PE | 46430 | 5.565 | 3.625 | 24.00 |
| | 6 | REE6545PE | 46450 | 6.625 | 3.750 | 30.00 |

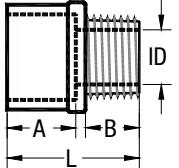
| 30° Elbows - Plain End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|-------------------|---------------------|-------------------|--------------------------|------------------------|------------------------|
|  | 1/2 | REE1030PE | 46100 | 0.840 | 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 | 3.625 | 24.00 |
| | 6 | REE6530PE | 46442 | 6.625 | 3.750 | 30.00 |

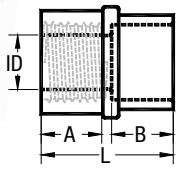
| Utilities 90° Elbows - Plain End | Sizes (in) | Product Code | UPC Number | Diameter (D) (in) | Length (L) (in) | Radius (R) (in) |
|---|-------------------|---------------------|-------------------|--------------------------|------------------------|------------------------|
|  | 1 1/4 | REE2590E | 46125 | 1.660 | 14.750 | 7.25 |
| | 1 1/2 | REE3090E | 46260 | 1.900 | 14.750 | 8.25 |
| | 2 | REE3590E | 43290 | 2.375 | 14.750 | 9.50 |

Couplings and Adapters

| Couplings | Sizes (in) | Product Code | 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 (*Fabricated) | Sizes (in) | Product Code | 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 | 3.500 | 2.445 | 5.5 |
| | 3 | R5EC45 | 46810 | 3.500 | 3.042 | 6.0 |
| | 3 1/2 | R5EC50 | 46815 | 4.500 | 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 |

| Terminal Adapters (1/2"- 1 1/4" Tapered Thread, 6" NPT) | Sizes (in) | Product Code | UPC Number | A (in) | B (in) | Inside Diameter (ID) (in) | Thread (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) | Sizes (in) | Product Code | UPC Number | A (in) | B (in) | Inside Diameter (ID) (in) | Thread (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 – Expansions Joints, Straps and Meter Accessories

| Expansion Joints | | Sizes (in) | Product Code | UPC Number | Expanded Length (E) (in) | Contracted Length (C) (in) | Travel (in) |
|---|---|------------|--------------|------------|--------------------------|----------------------------|-------------|
|  |  | ½ | REJ10 | 44870 | 12.00 | 8.00 | 4.00 |
| | | ¾ | REJ15 | 44880 | 12.00 | 8.00 | 4.00 |
| | | 1 | REJ20 | 44890 | 12.50 | 8.50 | 4.00 |
| | | 1¼ | REJ25 | 44900 | 13.00 | 9.00 | 4.00 |
| | | 1½ | REJ30 | 44910 | 13.00 | 9.00 | 4.00 |
| | | 2 | REJ35 | 44920 | 13.25 | 9.25 | 4.00 |
| | | 2½ | REJ40 | 44930 | 13.25 | 9.25 | 4.00 |
| | | 3 | REJ45 | 44940 | 22.25 | 14.25 | 8.00 |
| | | 3½ | 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 |

| Expansion Joints | | | | | | | | | | | | |
|--|--|-------------|---------|------------------|--|-------------|---------|------------------|--|-------------|---------|-------|
| PVC | Sizes (in) | Product No. | UPC No. | PVC Coated Steel | Sizes (in) | Product No. | UPC No. | PVC Coated Steel | Sizes (in) | Product No. | UPC No. | |
|  |  | ½ | RPS10 | 45540 |  | 2 | RCS35 | 44783 |  | ½ | RCS10-1 | 46850 |
| | | ¾ | RPS15 | 45550 | | 2½ | RCS40 | 44784 | | ¾ | RCS15-1 | 46852 |
| | | 1 | RPS20 | 45560 | | 3 | RCS45 | 44785 | | 1 | RCS20-1 | 46854 |
| | | 1¼ | RPS25 | 45570 | | 3½ | RCS50 | 44786 | | 1¼ | RCS25-1 | 46856 |
| | | 1½ | RPS30 | 45580 | | 4 | RCS55 | 44787 | | 1½ | RCS30-1 | 46858 |
| | | 2 | RPS35 | 45590 | | 5 | RCS60 | 44788 | | 2 | RCS35-1 | 46860 |
| | | | | | | 6 | RCS65 | 44789 | | 2½ | RCS40-1 | 46862 |
| | | | | | | | | | 3 | RCS10-1 | 46864 | |
| | | | | | | | | | 4 | RCS10-1 | 46866 | |
| | | | | | | | | | | | | |

| Meter Offsets | | | |
|---|------------|-------------|---------|
| | Sizes (in) | Product No. | UPC No. |
|  | 1¼ | RM025 | 45500 |
| | 2 | RM035 | 45510 |

| Long Meter Offsets (Fabricated) | | | |
|---|------------|-------------|---------|
| | Sizes (in) | Product No. | UPC No. |
|  | 1¼ | RLM025 | 45472 |
| | 1½ | RML030 | 45474 |
| | 2 | RML035 | 45476 |

| Service Entrance Fittings | | | |
|---|------------|-------------|---------|
| | Sizes (in) | Product No. | UPC No. |
|  | ½ | REF10 | 44795 |
| | ¾ | REF15 | 44800 |
| | 1 | REF20 | 44810 |
| | 1¼ | REF25 | 44820 |
| | 1½ | REF30 | 44830 |
| | 2 | REF35 | 44840 |
| | 2½ | REF40 | 44842 |
| | 3 | REF45 | 44844 |
| | 3½ | REF50 | 44852 |
| | 4 | REF55 | 44860 |

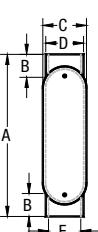
| Meter Hubs | | | |
|--|------------|-------------|---------|
| | Sizes (in) | Product No. | UPC No. |
|  | 1¼ | RMHU25 | 45480 |
| | 1½ | RMHU30 | 45485 |
| | 2 | RMHU35 | 45490 |

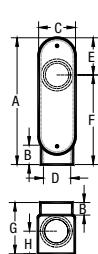
| Expansion & Deflection Fittings Assembly | | | |
|--|------------|-------------|---------|
| | Sizes (in) | Product No. | UPC No. |
|  | 2 | RSEJ35 | 46990 |
| | 3 | RSEJ45 | 46992 |
| | 4 | RSEJ55 | 46994 |

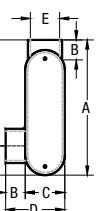
| Ecovoc Solvent Cement (*c/w Screw Cap & Dauber) | | | |
|---|------------|-------------|-------------|
| | Sizes (in) | Product No. | Carton Qty. |
|  | 250ml | RVOC250* | 24 |
| | 475ml | RVOC475* | 12 |
| | 950ml | RVOC950* | 12 |
| | 4L | RVOC4L | 4 |

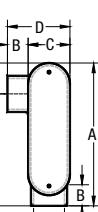
| Privoc Solvent Cement (*c/w Screw Cap & Dauber) | | | |
|--|------------|-------------|-------------|
| | Sizes (in) | Product No. | Carton Qty. |
|  | 250ml | RVOPCR250* | 24 |
| | 475ml | RVOPCR475* | 12 |
| | 950ml | RVOPCR950* | 12 |
| | 4L | RVOPCR4L | 4 |

Fittings – Access Fittings

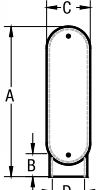
| Type C | Sizes (in) | Product Code | UPC Number | A (in) | B (in) | C (in) | D (in) |
|---|------------|--------------|------------|--------|--------|--------|--------|
|  | 1/2 | RSC10S | 46600 | 5.606 | 0.639 | 1.268 | 1.100 |
|  | 3/4 | RSC20S | 46605 | 5.606 | 0.810 | 1.536 | 1.325 |
| | 1 | RSC30S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

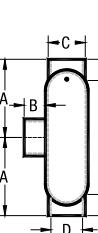
| Type LB | Sizes (in) | Product Code | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) | H (in) |
|---|------------|--------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|
|  | 1/2 | RSLB10S | 45620 | 4.337 | 0.639 | 1.268 | 0.840 | 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 | 2.733 | 9.825 | 6.240 | 2.610 |
| | 3 | RSLB80S | 45680 | 13.630 | 1.900 | 4.500 | 3.510 | 3.805 | 10.897 | 6.240 | 2.610 |
| | 3 1/2 | RSLB90S | 45610 | 16.000 | 2.125 | 5.536 | 4.000 | 4.535 | 11.465 | 7.500 | 2.975 |
| | 4 | RSLB100S | 45681 | 16.000 | 2.125 | 5.536 | 4.530 | 4.535 | 11.465 | 7.500 | 2.975 |

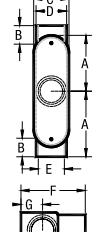
| Type LL | Sizes (in) | Product Code | UPC Number | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) |
|---|------------|--------------|------------|--------|--------|--------|--------|--------|--------|--------|
|  | 1/2 | RSLL10S | 46650 | 4.337 | 0.639 | 1.268 | 2.487 | 0.840 | 4.095 | 1.297 |
|  | 3/4 | RSLL20S | 46655 | 5.395 | 0.810 | 1.536 | 2.487 | 1.050 | 4.095 | 1.297 |
| | 1 | RSLL30S | 46660 | 6.250 | 0.910 | 1.700 | 2.075 | 1.335 | 4.750 | 1.500 |
| | 1 1/4 | RSLL40S | 46665 | 7.625 | 1.050 | 2.300 | 3.575 | 1.100 | 5.750 | 1.750 |
| | 1 1/2 | RSLL50S | 46670 | 8.250 | 1.125 | 2.675 | 3.938 | 1.900 | 6.500 | 1.750 |
| | 2 | RSLL60S | 45682 | 10.531 | 1.160 | 3.188 | 4.535 | 2.375 | 8.156 | 2.344 |
| | 2 1/2 | RSLL70S | 45672 | 13.630 | 1.750 | 4.500 | 6.240 | 2.870 | 9.825 | 3.805 |
| | 3 | RSLL80S | 46674 | 13.630 | 1.900 | 4.500 | 6.240 | 3.510 | 10.897 | 2.733 |
| | 3 1/2 | RSLL90S | 46678 | 16.000 | 2.125 | 5.536 | 7.500 | 4.000 | 11.465 | 4.535 |
| | 4 | RSLL100S | 46676 | 16.000 | 2.125 | 5.536 | 7.500 | 4.530 | 11.465 | 4.535 |

| Type LR | Sizes (in) | Product Code | 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 | 46738 | 16.000 | 2.125 | 5.536 | 7.500 | 4.000 | 11.465 | 4.535 |
| | 4 | RSLR100S | 46735 | 16.000 | 2.125 | 5.536 | 7.500 | 4.530 | 11.465 | 4.535 |

Fittings – Access Fittings

| Type E | Sizes (in) | Product Code | 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 | 46648 | 16.000 | 2.125 | 5.536 | 4.000 |
| | 4 | RSE100S | 46646 | 16.000 | 2.125 | 5.536 | 4.530 |

| Type T | Sizes (in) | Product Code | 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 | 46752 | 8.535 | 2.125 | 5.000 | 4.000 |
| | 4 | RST100S | 46750 | 8.535 | 2.125 | 5.000 | 4.530 |

| Type TB | Sizes (in) | Product Code | 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 | 46766 | 8.535 | 2.125 | 5.536 | 5.000 | 4.000 | 7.500 | 2.975 | - |
| | 4 | RSTB100S | 46764 | 8.535 | 2.125 | 5.536 | 5.000 | 4.530 | 7.500 | 2.975 | - |

Fittings – Cover Plates

Single Gang Cover Plates - F Series



RTSC15-10



RDRC15-10



R20RC15-10



R20-3RC15-10



R30-3RC15-10



RBRC15-10



GASK15-10

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

Double Gang Cover Plates - F Series



RTSC20-2



RTSDC20-2



RDRC20-2



RBRC20-2



GASK20-2

| Description | Product Code | 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



RTSC20-3



RDSDR20-3



RTSDC20-3



RDRC20-3



RBRC20-3



GASK20-3

| Description | Product Code | UPC Number |
|--------------------------|--------------|------------|
| Triple Switch | RTSC20-3 | 45857 |
| Double Switch Receptacle | RDSDR20-3 | 44689 |
| Double Receptacle/Switch | RTSDC20-3 | 45858 |
| Triple Receptacle | RDRC20-3 | 44688 |
| Triple Blank with Gasket | RBRC20-3 | 44683 |
| Gasket | GASK20-3 | 45859 |

Fittings – Weatherproof Cover Plates

Single Gang Weatherproof Cover Plates



RVSC15-10

RVSC15-10

RWTG15-10

RWGF15-10

RWTL

RVSC15-10

GASK W

| Description | Product Code | 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



RTSC20-2

RTSDC20-2

RDRC20-2

RBRC20-2

GASK20-2

| Description | Product Code | UPC Number |
|---------------------------|--------------|------------|
| Double 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 |

Fittings – Slab Boxes

Single Gang Boxes - F Series



RFS



RFSS



RFSC



RFSCC

| Description | Product Code | UPC Number | Volume (in3) |
|-------------|--------------|------------|--------------|
| 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



RFDS



RFDC



BLANK



347 VOLT

Outside Dimensions: Length = 4.59", Width = 2.83", Height = 2.92"

| Description | Product Code | UPC Number | Volume (in3) |
|-------------|--------------|------------|--------------|
| 1/2" FDS | RFDS10 | 45178 | 27.6 |
| 3/4" FDS | RFDS15 | 45180 | 27.6 |
| 1" FDS | RFDS20 | 45190 | 27.6 |
| 1/2" FDC | RFDC10 | 45170 | 25.9 |
| 3/4" FDC | RFDC15 | 45175 | 25.9 |
| 1" FDC | RFDC20 | 45177 | 25.9 |
| BLANK | RFD | 45160 | 36 |
| 347 volt | RFD347 | 45162 | 24.2 |

Fittings – Slab Boxes

Double Gang Boxes - F Series



FS



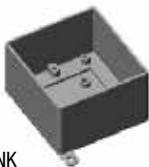
FSS



FSC



FS CC



BLANK

Outside Dimensions: Length = 4.5", Width = 4.75", Height = 2.5", except BLANK, L=4.75", W=4.75", H=3.0"

| Description | Product Code | UPC Number | Volume (in3) |
|-------------|--------------|------------|--------------|
| ½" FS | RFS2-10 | 45205 | 39.5 |
| ¾" FS | RFS2-15 | 45215 | 39.5 |
| 1" FS | RFS2-20 | 45216 | 39.5 |
| ½" FSS | RFSS2-10 | 45242 | 37.0 |
| ¾" FSS | RFSS2-15 | 45244 | 37.0 |
| 1" FSS | RFSS2-20 | 45246 | 37.0 |
| ½" FSC | RFSC2-10 | 45222 | 37.0 |
| ¾" FSC | RFSC2-15 | 45231 | 37.0 |
| 1" FSC | RFSC2-20 | 45226 | 37.0 |
| ½" FS CC | RFSCC2-10 | 45234 | 36.0 |
| ¾" FS CC | RFSCC2-15 | 45238 | 36.0 |
| 1" FS CC | RFSCC2-20 | 45239 | 36.0 |
| BLANK | RFD-D | 45150 | 52.0 |

Triple Gang Boxes - F Series



FSC



FSC



BLANK

Outside Dimensions: Length = 4.5", Width = 6.6", Height = 2.5", except BLANK, L = 4.5", W = 6.6", H = 3.0"

| Description | Product Code | UPC Number | Volume (in3) |
|-------------|--------------|------------|--------------|
| ½" FSC | RFSC3-10 | 45224 | 56.0 |
| ¾" FSC | RFSC3-15 | 45232 | 56.0 |
| 1" FSC | RFSC3-20 | 45228 | 56.0 |
| ½" FS | RFS3-10 | 45208 | 54.0 |
| ¾" FS | RFS3-15 | 45218 | 54.0 |
| 1" FS | RFS3-20 | 45219 | 54.0 |
| BLANK | RFD-3 | 45155 | 73.8 |

Octagonal Boxes



| Sizes (in) | Product No. | UPC No. |
|------------|-------------|---------|
| 4 x 1½ | ROB15/10 | 45520 |
| 4 x 2 | ROB20 | 45525 |
| ¾ | RK015 | 45450 |
| 1 | RK020 | 45455 |

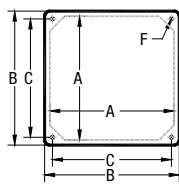
Octagonal Box Extension Rings



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

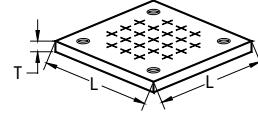
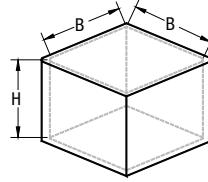
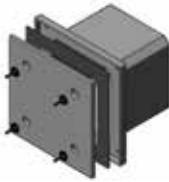
Fittings – Slab Boxes

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 (in³) |
|-------------------|----------------|------------|--------------------------------|---------------------------------|--------------------------------|-------------------------|------------------------|----------------|--------------|
| 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 | .-20 | 258.6 |
| 8 x 8 x 7 | RJB887 | 45350 | 8.100 | 8.625 | 7.996 | 7.250 | 7.035 | .-20 | 455.6 |
| 12 x 12 x 4 | RJB12124 | 45280 | 12.085 | 12.580 | 11.874 | 4.256 | 4.030 | .-20 | 578.3 |
| 12 x 12 x 6 | RJB12126 | 45290 | 12.085 | 12.580 | 11.874 | 6.240 | 6.025 | .-20 | 864.6 |
| 12 x 12 x 8 | RJB12128 | 45295 | 12.085 | 12.580 | 11.874 | 8.250 | 8.025 | .-20 | 1151.6 |

Junction Boxes With Gasket



| 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 (in³) |
|-------------------|----------------|------------|------------------------------------|---------------------------|-----------------------------|---------------------------|--------------|
| 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 |

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 (*Includes Leveling Ring)

| 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 |

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