



PERMA-COTE

PRODUCT CATALOG





Perma-Cote Product Catalog Index

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General Disclaimers

1. All weights and dimensions are approximate and are subject to change without notice.
2. Perma-Cote reserves the right to make engineering changes as needed.
3. Catalog numbers are not intended to represent specific manufacturers.
4. Unless indicated otherwise, all weights and measures are in inch-pound units.
5. Please see current price guide for product availability.





DOES YOUR PVC-COATED GALVANIZED RIGID CONDUIT CARRY THIS VERIFICATION OF PROVEN PERFORMANCE?

ETL Verified PVC-001



The PVC coating adhesion performance of this product has been ETL verified to the Intertek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours.
Certificate Number: 3072346-003

If not: you've paid more for a product that delivers you ten times less. Here's why...

ETL - THE MARK OF PROVEN PERFORMANCE!

Fact One:

Perma-Cote PVC-coated galvanized rigid conduit is authorized to carry both the ETL-verified mark of performance and a UL-rated label. Ocal is not.

Fact Two:

In independent ETL product performance evaluation, Perma-Cote was consistently maintained successful bonding of protective PVC coating during extended hot water immersion.

In fact...over the course of 200 hours, Perma-Cote performed ten times more reliably than Ocal.

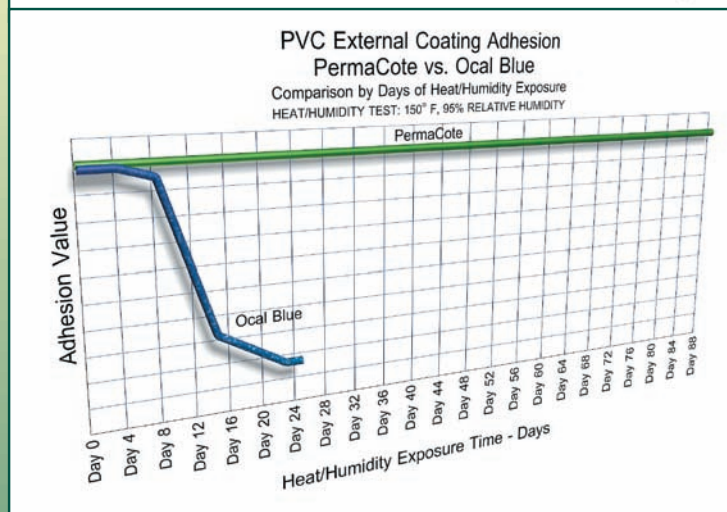
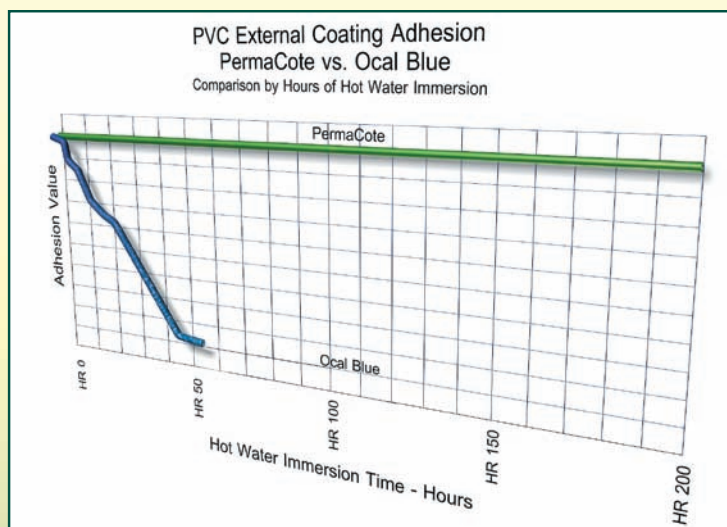
Ocal's bonding adhesion failed quickly during the identical test. In real life applications failure of PVC to bond with the conduit's metal substrate leads to corrosion destruction and costly product failure.

Fact Three:

ETL-verified heat and humidity tests showed equally dramatic performance superiority of Perma-Cote when compared in identical testing to Ocal.

PROVE IT TO YOURSELF.

HERE'S WHY PERMA-COTE HAS BEEN APPROVED TO CARRY ETL PERFORMANCE VERIFICATION – AND OTHER CONDUIT BRANDS HAVE NOT.





Here Are The Many Reasons Why You Should "Go Green".

Perma-Cote conduit systems, easily recognized by our green interior color, provide numerous benefits to our product users:

- **Better bonding adhesion of the PVC coating...**available only through our UltraBond™ surface preparation technology, provides maximum protection against corrosion. The superiority of our protective bond has been proven in ASTM laboratory tests and in demanding on-the-job applications.



- **Better installed value...** available only through our ThreadSaver™ system. This specialized, automated technology protects conduit from failure at its most vulnerable point by hot galvanizing threads after PVC coating of the conduit and before application of a polyurethane topcoat.
- **Better assurances that you'll get what you pay for...** Perma-Cote conduit and general service location fittings are UL Listed with PVC as the primary corrosion protection.

ETL Verified PVC-001: The PVC coating adhesion performance of this product has been ETL verified to the Intertek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours.

- **Better availability...** through our extensive distribution network and commitment to in-stock product shipping within 48-hours. We put the material where it needs to be... on the job... **FAST!** Remember we do provide the PVC-coated Crouse-Hinds fittings that you demand.

Perma-Cote PVC Coated Conduit...

"On-The-Job" With Superior Corrosion Protection, Great Availability, And Unsurpassed Value.

You can rely on Perma-Cote conduit and fittings for the best protection from corrosion in the most demanding application environments: chemical and metal manufacturing facilities...oil refineries...offshore drilling platforms...food processing plants...paper mills...waste water treatment plants...underground pipelines.

Perma-Cote is a worldwide-recognized leader in the fight against corrosion. Electrical contractors, maintenance engineers, architectural and design firms, and OEM's depend on the longevity, no-hassle installation, trouble-free maintenance, and peak performance properties of our PVC coated products.





In The Tough Battle Against Corrosion... "Go Green". Perma-Cote PVC Coated Galvanized Rigid Conduit Systems!

Better offering of "extra" value...

Perma-Cote delivers you an outstanding combination of value adds including:

CHEMICAL RESISTANCE

Coatings are resistant to a wide range of corrosive chemicals to prevent the exposure of the metal to damaging environments.

SEALING SLEEVES

PVC sleeves are sized so they fit tightly over the coated conduit when assembled. This keeps corrosive elements from the threaded joints.

ENCAPSULATED STAINLESS STEEL SCREWS

All Form 8 conduit cover screws are made from stainless steel with a plastic encapsulated head that provides a seal around the screw opening for maximum corrosion protection.

POLYURETHANE COATINGS

Polyurethane coatings have been specially formulated for optimum chemical resistance, flexibility, durability, and bond.

UV STABILIZED PVC COATING

Specially formulated UV stabilized PVC coatings are resistant to UV damage. No coating deterioration when exposed outdoors.

COMPREHENSIVE LINE OF FACTORY NIPPLES AND ELBOWS, STANDARD & SPECIAL RADIUS

Quick shipment of a comprehensive line of factory Nipples and Elbows, Standard and Special Radius. That means faster installation and lower labor costs.

RIBBED COUPLINGS

Molded ribs on couplings provide an additional thickness of PVC. This protects the coating from cuts and abrasions caused by the teeth of wrenches and other installation tools.

PVC GASKET SEALS ON FITTINGS

Perma-Cote fittings have seals to keep corrosives from getting into the conduit system through joints and openings, protecting the interior of the system from corrosion.

ETL VERIFIED PVC-001:

The PVC coating adhesion performance of this product has been ETL verified to the Intertek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours.

CLAMPS DESIGNED FOR PVC COATED CONDUIT

All of Perma-Cote PVC coated pipe straps, clamps and clamp back spacers are specially designed to fit PVC coated conduit. The benefit? Proper fit and ease of installation. We also provide U-bolts in your choice of PVC coated or non-PVC coated stainless steel.

COLOR CODED THREAD PROTECTORS

Thread protectors are color coded by size for quick identification of conduit size.

INSTALLATION TOOLS

Special installation tools are available to make installation faster, easier and damage free.

FIVE YEAR WARRANTY

Our Five Year Warranty gives you peace of mind.

INTERNET WEB SITE WWW.PERMACOTE.COM

Convenient, 24-hour a day access to our product catalog, price list, product information, installation instructions, submittal guide, and other useful information. You can also e-mail questions and comments to us.





CORROSION COLLEGE

Helping You Beat Corrosion Through Education

According to the National Association of Corrosion Engineers, this cost exceeds \$500 billion...per year! Corrosion College, on the other hand, is absolutely free. You cannot afford to miss it!

Corrosion College includes:

- Two days of intensive instruction conducted by professionals in the field of corrosion protection.
- Hands-on experience in understanding the process of corrosion.
- Exploration of proven strategies for combating corrosion.
- A comprehensive curriculum including case studies and laboratory workshops.
- Interactive presentations detailing the proper installation and anti-corrosion performance of rigid metal PVC-coated conduit and fittings.

Corrosion College is of direct benefit to:

Specifiers	End-Users	Owners	Engineers
Purchasing Agents		Distributors	Contractors

Here are just a few comments from those who found great value in the Corrosion College:

"This course was very well organized."

D.R. - Design/Material Specialist

"Demonstrates concern for a quality product."

D.R. - Contractor

"Good Texas hospitality, knowledgeable instructors, good communications and worthwhile topics all contributed to a pleasant atmosphere and successful learning session."

J.H. - Electrical Engineer

"I enjoyed the course and had fun with the the presenter."

B.E. - Electrical Engineer

"A very well done course, I learned alot and thank you guys for having me here."

F.D. - Electrical Engineer

"The entire course and stay was EXTREMELY delightful and appreciated greatly... was conducted in a very relaxing and positive way."

R.W. - Electrical Contractor

"Although not geared specifically toward my job background as a UL employee, the Corrosion College provided me with a wealth of information that I will be able to apply in my job. More important for my application is that this course gave me a firm understanding of corrosion protection, which I will be able to utilize in developing listing requirements."

B.W. - Electrical Engineer

"Hands-on aspect is an outstanding memory aid."

G.W. - Technical Editor

"Super!"

M.M. - Electrical Engineer

"Absolutely the most pleasant learning experience. Of all my training opportunities I have gotten the most out of this."

T.M. - Electrical Reliability

"I found the portion of the course which covered the process of corrosion and corrosion protection (sacrificial vs. barrier) very informative. The staff presenting the class was extremely well informed and made the information interesting. Thank you."

K.A. - Electrical Engineer

"Overall this was a joyful, enjoyable experience. Excellent!"

P.H. - Major City Water Dept. Engineer

"I came to learn and DID."

R.D. - Electrical Contractor

"A very professional learning adventure that benefited me tremendously. The instructors get A+ for knowledge and teaching methods"

D.M. - I&E Supervisor

"I have been to many different types of conferences/seminars/etc. and this has been one of the best I have attended. Job well done."

B.E. - College Instructor

"I had no idea that there was so much to learn about corrosion. This was a very good school."

R.B. - End User E.E.

Now Accredited For 1.5 Continuing Education Units.

Installer Certification

ENSURING THE MOST EFFECTIVE USE OF THE
BEST AVAILABLE PRODUCT: PERMA-COTE



We believe in the absolute need for Installer Certification. This is our way of ensuring that Perma-Cote is installed properly and can be depended upon for the high level of reliable performance for which it has been designed and engineered.

We regard Installer Certification as a win-win situation for all involved. Qualified installation provides these benefits:

- The end-user receives optimum installation quality.
- The engineering firm benefits because of obvious concern for providing only the best to the end-user.
- The contractor achieves more cost-effective installation.
- The installer's skills are made even more valuable.
- Everyone gains from more efficient installation times and significantly reduced risks of the need for rework.

Perma-Cote Installer Certification is based upon training that includes classroom and hands-on instruction encompassing:

The manufacturing processes of coated conduit.

Proper installation techniques and tools.

Hands-on instruction for clamping, cutting, bending, threading and assembly of coated conduit.

Interactive discussion of techniques and troubleshooting.

Only installers who are able to present the authorized credentials of having passed our instruction and examination are officially certified to install Perma-Cote's top quality products. If you require verification of certification, please call our Installer Certification Coordinator at 903-843-4388. We maintain an ongoing master registration log.



Installer certification is free of charge and available at the job site, contractor's shop, factory, or wherever it is convenient to you!

5 ASSEMBLY

- Use Perma-Cote Touch Up Compound to repair nicks, cuts and abrasions to the exterior of the Perma-Cote conduit.
- Perma-Cote Touch Up Compound can be used as a sealant at access fitting openings.
- Perma-Cote Z Wrenches are designed to replace standard adjustable pliers and channel locks.
- Using Perma-Cote Spin-it, reduces marks left by wrenches or pliers, saving time and labor.
- Jaws 3 is a set of three aluminum-nickel-bronze vise jaws designed to replace the regular jaws in a pipe vise. When ordering Jaws 3 be sure to specify the vise model.

• Use the Perma-Cote Plasti-Socket and a standard 3/8" ratchet to speed up U Bolt and beam clamp installation.

Perma-Cote
Certifies that:

(Certified Installer's Name) _____

(Company) _____
has successfully completed The Coated Conduit System Installation Training on this _____ day of _____ 20____


Instructor _____
As a certified Perma-Cote installer you are now qualified to conduct installation training and authorize certification of new installers

Certificate # _____

www.permacote.com

THE FIVE BASIC STEPS FOR PROPER INSTALLATION OF PERMA-COTE®

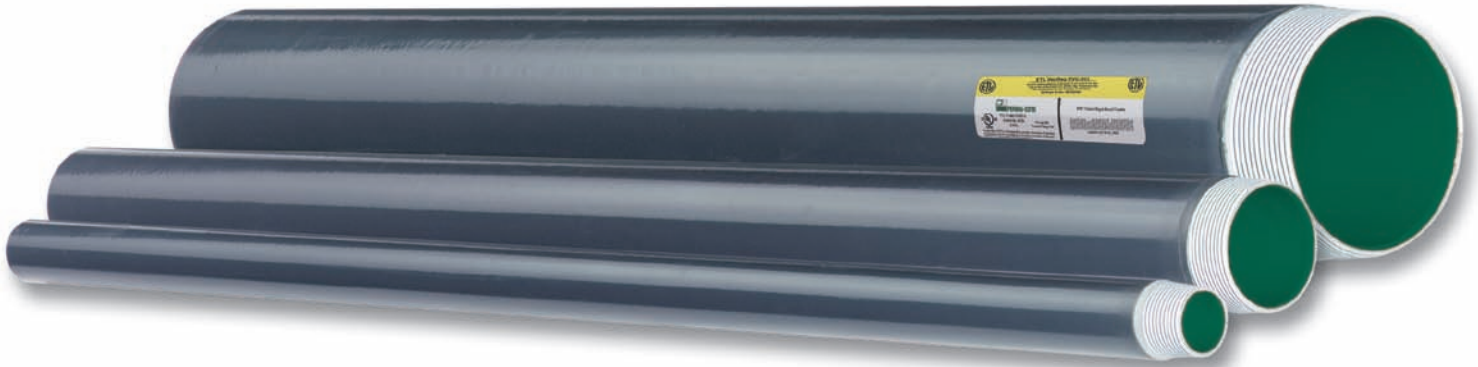
- 1 Clamping
- 2 Cutting
- 3 Threading
- 4 Bending
- 5 Assembly



Executive Offices:
1100 US Highway 271 South
Gilmer, Texas 75644
Tel: 903/843-4388
Fax: 903/843-2516



PVC Coated Galvanized Rigid Conduit



PVC coated galvanized rigid conduit with green urethane interior coating protects conductors from mechanical damage and corrosive attack. Electrical continuity is maintained across assembled joints.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- THREADSAVER – A clear urethane coating over hot galvanized threads
- 12 trade sizes from 1/2" through 6"
- Shipped in 10' lengths
- Plastic thread protector caps are color coded for quick identification of conduit size.

Thread Protector Cap Colors:

Black- for 1/2" sizes, 1/2", 1-1/2", 2-1/2", 3-1/2"
Red- for 1/4" sizes, 3/4", 1-1/4"
Blue- for even sizes, 1", 2", 3", 4", 5", 6"

COMPLIANCES

Steel and Aluminum

- UL 6 (E2314), UL 6A (E98405)
- CSA C22.2 No. 45
- PVC as the primary corrosion protection for steel conduit. The underlying zinc coating is a supplemental corrosion protection coating. Restricted for use with threaded fittings only.

ETL VERIFIED PVC-001: The PVC coating adhesion performance of this product has been ETL verified to the Interek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours.



**Get what you pay for...
ETL-Verified Performance
together with UL-Listed
corrosion protection of PVC!**

Properly bonded PVC is what keeps your conduit safe from corrosive attack. With PERMA-COTE you get something special: PVC coated conduit that is UL Listed with PVC as the primary corrosion protection. This is important because not all conduit has been investigated for the corrosion protection properties of PVC. Simply check the UL and ETL-Verified label to see if you're getting the corrosion protection you're paying for. ETL Verified PVC-001: The PVC coating adhesion performance of this product has been ETL verified to the Interek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours. With PERMA-COTE you sure are!

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



COATED CONDUIT

Metric Size Designators	Pipe Size Inches	Catalog Number	Outside Wall Thickness Inches	Diameter With Coating Inches	Internal Inside Diameter Inches	Traverse Area Sq. Inches	Nominal Weight/100 ft.	Aluminum Catalog #
16	1/2"	050-CON	.104"	.920"	0.632"	0.314"	85	050-CON-A
21	3/4"	075-CON	.107"	1.130"	0.836"	0.549"	112	075-CON-A
27	1"	100-CON	.126"	1.395"	1.063"	0.887"	164	100-CON-A
35	1-1/4"	125-CON	.133"	1.740"	1.394"	1.526"	217	125-CON-A
41	1-1/2"	150-CON	.138"	1.980"	1.624"	2.071"	268	150-CON-A
53	2"	200-CON	.146"	2.455"	2.083"	3.408"	358	200-CON-A
63	2-1/2"	250-CON	.193"	2.955"	2.489"	4.866"	546	250-CON-A
78	3"	300-CON	.205"	3.580"	3.090"	7.499"	708	300-CON-A
91	3-1/2"	350-CON	.215"	4.080"	3.570"	10.010"	851	350-CON-A
103	4"	400-CON	.225"	4.580"	4.050"	12.882"	1009	400-CON-A
129	5"	500-CON	.245"	5.643"	5.073"	20.212"	1337	500-CON-A
155	6"	600-CON	.266"	6.705"	6.093"	29.158"	1993	600-CON-A

PERMA-COTE COATED NIPPLES

Factory threaded nipples save you time and money in the field. Electrical continuity is maintained across assembled joints.

*The exteriors of certain short nipples are coated with urethane in lieu of PVC. This is dictated by the manufacturing process as well as assembly considerations.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior and thread coating
- 12 trade sizes from 1/2" through 6"
- 11 standard lengths in available: Close, 2" to 12"
- Made to order lengths available – Call for quote
- Plastic thread protector caps are color coded for quick identification of conduit size.

Thread Protector Cap Colors:

Black- for 1/2" sizes, 1/2", 1-1/2", 2-1/2", 3-1/2"
 Red- for 1/4" sizes, 3/4", 1-1/4"
 Blue- for even sizes, 1", 2", 3", 4", 5", 6"

COMPLIANCES

Steel and Aluminum

- UL 6 (E2314), UL 6A (E98405)
- CSA C22.2 No. 45
- PVC as the primary corrosion protection for steel conduit. The underlying zinc coating is a supplemental corrosion protection coating. Restricted for use with threaded fittings only.

ETL VERIFIED: PERMA-COTE NIPPLES ARE MANUFACTURED FROM ETL-VERIFIED CONDUIT

EASY ORDERING

To order Perma-Cote coated nipples follow this simple formula to create your Perma-Cote catalog number.

Use the "Fraction Conversion" table to convert trade sizes to Perma-Cote decimal format.

NIP - SIZE X LENGTH -AL

Fraction Conversion
TRADE SIZE Perma-Cote CODE

1/2	050
3/4	075
1	100
1-1/4	125
1-1/2	150
2	200
2-1/2	250
3	300
3-1/2	350
4	400
5	500
6	600

The catalog number for a Perma-Cote coated steel 1/2" nipple with a length of 10": **NIP-050X10**

TRY IT!

Enter "NIP" Standard Nipple Prefix Enter Trade Size Code Enter Desired Nipple Length For Aluminum Add '-AL' suffix

NIP - X - **AL**

This number can be looked up in the listing of pricing to determine price and availability.

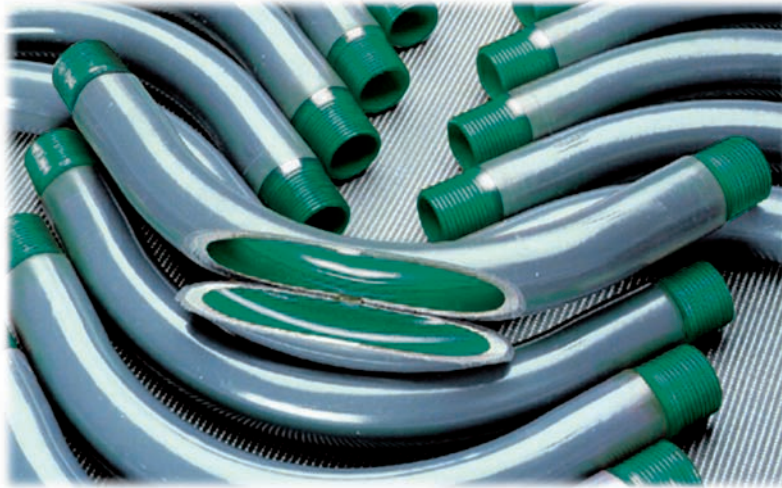
Call 903-843-4388 for custom orders, customer service and more information on Perma-Cote.

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



Coated Elbows



Factory bent standard radius elbows are available and ready to ship. Factory bent elbows are more accurate, quicker to install and more economical, because they save field bending time and do not waste materials. Electrical continuity is maintained across assembled joints.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior and thread coating
- 12 trade sizes from 1/2" through 6"
- Available in 90°, 60°, 45°, and 30° bends
- Plastic thread protector caps are color coded for quick identification of conduit size.

Thread Protector Cap Colors:

Black- for 1/2" sizes, 1/2", 1-1/2", 2-1/2", 3-1/2"
 Red- for 1/4" sizes, 3/4", 1-1/4"
 Blue- for even sizes, 1", 2", 3", 4", 5", 6"

COMPLIANCES

Steel and Aluminum

- UL 6 (E2314), UL 6A (E98405)
- CSA C22.2 No. 45
- PVC as the primary corrosion protection for steel conduit. The underlying zinc coating is a supplemental corrosion protection coating. Restricted for use with threaded fittings only.

ETL VERIFIED: PERMA-COTE ELBOWS ARE MANUFACTURED FROM ETL-VERIFIED CONDUIT

EASY ORDERING

To order Perma-Cote coated elbows follow this simple formula to create your Perma-Cote catalog number.

Use the "Fraction Conversion" table to convert trade sizes to Perma-Cote decimal format.

The catalog number for a
 Perma-Cote coated steel,
 1/2" elbow with a 45° bend:

EL-050X45

Fraction Conversion

TRADE SIZE	Perma-Cote CODE
1/2	050
3/4	075
1	100
1-1/4	125
1-1/2	150
2	200
2-1/2	250
3	300
3-1/2	350
4	400
5	500
6	600

TRY IT!

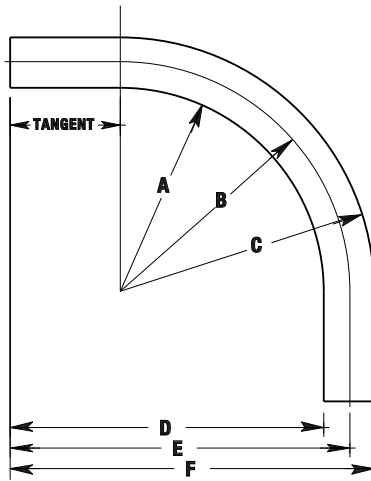
Required			Optional	
Enter "EL" Standard Elbow Prefix	Enter Trade Size Code	Enter the Degree of Bend	For Large Radius Elbows Enter Radius	For Aluminum Add '-AL' suffix
EL	-	X	X	AL

This number can be looked up in the listing of pricing to determine price and availability.

Call 903-843-4388 for custom orders, customer service and more information on Perma-Cote.

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

**DIAGRAM LEGEND**

A = Radius at inside of bend.

B = Radius at center line of bend.

C = Radius at outside of bend.

D = Offset at inside of bend.

E = Offset at center of bend.

F = Offset at outside of bend.

STANDARD RADIUS ELBOWS

Metric Size Designators	Nominal Size Inches	DIAMETERS		Nipple Lengths Inches	RADII			OFFSET			Tangent Inches
		External Inches	Internal Inches		A Inches	B Inches (standard)	C Inches	D Inches	E Inches	F Inches	
16	1/2"	0.920"	0.632"	11-1/4"	3.79"	4.25"	4.71"	6.040"	6.500"	6.960"	2.250"
21	3/4"	1.130"	0.836"	12-1/2"	3.94"	4.50"	5.07"	6.685"	7.250"	7.815"	2.750"
27	1"	1.395"	1.063"	14-3/4"	5.05"	5.75"	6.45"	7.928"	8.625"	9.323"	2.875"
35	1-1/4"	1.740"	1.394"	17-3/4"	6.38"	7.25"	8.12"	9.567"	10.437"	11.307"	3.187"
41	1-1/2"	1.980"	1.624"	19-3/4"	7.26"	8.25"	9.24"	10.635"	11.625"	12.615"	3.375"
53	2"	2.455"	2.083"	22-1/2"	8.27"	9.50"	10.73"	12.086"	13.313"	14.541"	3.813"
63	2-1/2"	2.955"	2.489"	28"	9.02"	10.50"	11.98"	14.776"	16.253"	17.731"	5.753"
78	3"	3.580"	3.080"	32"	11.21"	13.00"	14.79"	17.000"	18.790"	20.580"	5.790"
91	3-1/2"	4.080"	3.570"	39-1/2"	12.96"	15.00"	17.04"	20.920"	22.960"	25.000"	7.960"
103	4"	4.580"	4.050"	39-1/2"	13.71"	16.00"	18.29"	20.890"	23.180"	25.470"	7.180"
129	5"	5.643"	5.073"	59-1/2"	21.18"	24.00"	26.82"	32.079"	34.900"	37.722"	10.900"
155	6"	6.705"	6.093"	76"	26.65"	30.00"	33.35"	41.088"	44.440"	47.793"	14.440"

PERMA-COTE factory bent elbows are also available in larger than standard radii to accommodate your special needs. Simply follow the steps for standard radius elbows on the previous page, then enter the desired radius in the formula. Refer to the table below to determine which radius is available for the size of conduit you need.

To use the Large Radius Elbow table, find the elbow radius required in the first row. Then look down the column to determine which conduit sizes are available in that radius. Use this information along with the instructions above to build a catalog number.

LARGE RADIUS ELBOWS

Radius B in Inches	12"	15"	18"	18"	24"	24"	30"	30"	36"	36"	36"	42"	42"	42"	48"	48"	48"
E Offset	1'5-1/2"	1'9-1/4"	2'1/4"	2'3"	2'8"	2'10"	3'4"	3'5"	3'11"	3'11-1/4"	4'3-1/4"	4'5"	4'6"	4'9-1/2"	5'1/4"	5'1-1/4"	5'3-1/4"
Nipple Length	2'6"	3'0"	3'5"	3'10"	4'6"	4'9"	5'6"	5'9"	6'7"	6'7"	7'3"	7'4"	7'6"	8'1"	8'4"	8'6"	8'10"
Tangent	5-1/2"	6-1/4"	6-1/4"	9"	8"	10"	10"	11"	11"	11-1/4"	15-1/4"	11"	12"	15-1/2"	12-1/4"	13-1/4"	15-1/4"
Available Pipe Sizes	1" & 2"	2"	1"	1-1/2" to 3"	3/4" to 2"	2-1/2" to 5"	2" to 3"	4" to 6"	3/4" to 4"	5" only	6" only	4"	5" only	n/a	1-1/2" to 4"	5" only	6" only



Perma-Cote Pulling Elbows

PERMA-COTE pulling elbows are used at 90° bends in conduit runs to allow straight pulls at bends, to serve as pull outlets for stiff conductors, to allow for service entrance into buildings or to allow conductor entrance into motors. Electrical continuity of the conduit system is maintained across assembled joints.

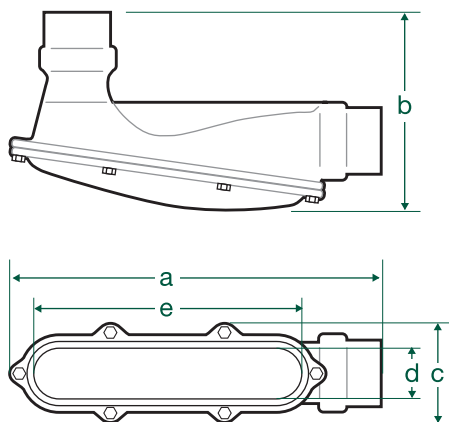
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 10 trade sizes from 1/2" through 4"
- Sealing sleeves on all conduit openings
- Molded-in seal between body and cover
- Domed covers allow gentle bends of conductors
- Shipped with covers
- Angled covers allow straight pulling in either direction

COMPLIANCES

Steel Fittings Only

- UL 514B (E200413)



PULLING ELBOWS LBD

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LBD-1100	1.2	5.54	2.85	1.39	1.00	3.34	LBD-1100-A
3/4"	LBD-2200	2.0	7.04	3.42	1.64	1.25	4.53	LBD-2200-A
1"	LBD-3300	2.5	7.29	3.98	1.89	1.50	4.34	LBD-3300-A
1-1/4"	LBD-4400	6.0	9.92	5.54	3.58	1.81	7.19	LBD-4400-A
1-1/2"	LBD-5500	11.5	13.98	6.98	4.71	2.63	10.88	LBD-5500-A
2"	LBD-6600	18.0	14.48	7.48	4.71	2.63	10.88	LBD-6600-A
2-1/2"	LBD-7700	22.0	21.73	11.60	5.71	3.00	15.75	LBD-7700-A
3"	LBD-8800	35.0	21.73	11.60	5.71	3.00	15.75	LBD-8800-A
3-1/2"	LBD-9900	60.0	29.85	13.92	7.21	4.00	24.00	LBD-9900-A
4"	LBD-10900	70.0	29.85	13.92	7.21	4.00	24.00	LBD-10900-A

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

PVC coated rigid metal conduit couplings with green urethane interior coating connect coated conduit sections. Electrical continuity is maintained across assembled joints. PVC sleeves on couplings seal off on conduit PVC coating when assembled to prevent corrosive liquids and vapors from attacking threaded joints.

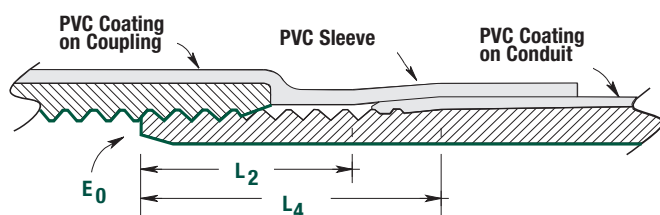
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating over galvanized threads
- 12 trade sizes from 1/2" through 6"
- Sealing sleeves on both ends
- Molded external ribs on 1/2" – 4" to prevent tool damage during assembly
- Couplings are straight tapped

COMPLIANCES

Steel and Aluminum

- UL 6 (E2314), UL 6A (E98405)
- CSA C22.2 No. 45



All female pipe openings are provided with a PVC sleeve sized to fit tightly over the PVC coated conduit when assembled. This prevents corrosives from contacting threaded joints.

COUPLING

THREADS

Metric Size Designators	Pipe Size Inches	Steel Catalog #	Nominal Weight Per 100 (Pounds)	Outside Diameter With Ribs Inches	Threads Per Inch	Effective Length L_2	Total Length of Threads to Vanish Point L_4	Pitch At End of Thread 3/4 in. Taper E_0	Aluminum Catalog #
16	1/2"	CPL-050	19	1.344"	14	.5337"	.7815"	.7584"	CPL-050-A
21	3/4"	CPL-075	32	1.531"	14	.5457"	.7935"	.9677"	CPL-075-A
27	1"	CPL-100	40	1.781"	11-1/2	.6828"	.9845"	1.2136"	CPL-100-A
35	1-1/4"	CPL-125	50	2.156"	11-1/2	.7068"	1.0085"	1.5571"	CPL-125-A
41	1-1/2"	CPL-150	69	2.469"	11-1/2	.7235"	1.0252"	1.7961"	CPL-150-A
53	2"	CPL-200	93	2.969"	11-1/2	.7565"	1.0582"	2.2690"	CPL-200-A
63	2-1/2"	CPL-250	123	3.594"	8	1.1375"	1.5712"	2.7195"	CPL-250-A
78	3"	CPL-300	217	4.250"	8	1.2000"	1.6337"	3.3406"	CPL-300-A
91	3-1/2"	CPL-350	422	4.875"	8	1.2500"	1.6837"	3.8375"	CPL-350-A
103	4"	CPL-400	391	5.250"	8	1.3000"	1.7337"	4.3344"	CPL-400-A
129	5"	CPL-500	550	6.080"	8	1.4063"	1.8400"	5.3907"	CPL-500-A
155	6"	CPL-600	884	7.280"	8	1.5125"	1.9462"	6.4461"	CPL-600-A

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

Couplings are straight tapped.

Tolerance, thread length = ± 1 thread.

Plus or minus 1 turn is the maximum variation permitted from the gauging face of the working thread gauges.

This is equivalent to plus or minus 1 and 1-1/2 turns from the basic dimensions, since the variation of plus or minus 1/2 turn from basic dimension is permitted in working gauges.



Conduit Bodies And Covers For General Service Locations

PERMA-COTE conduit bodies with covers are offered in Form 8 and Form 7 styles, each with numerous configurations to provide a complete coated conduit system. May be used to make 90° bends, for pull outlets, to provide for taps or splices, to act as a mounting outlet for wiring devices or lighting fixtures etc. Electrical continuity of the conduit system is maintained across assembled joints.

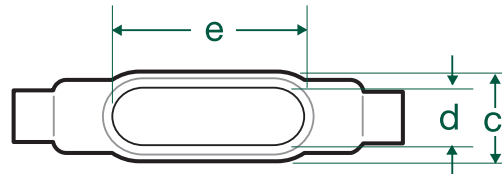
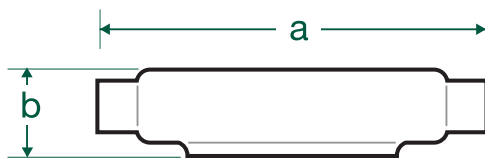
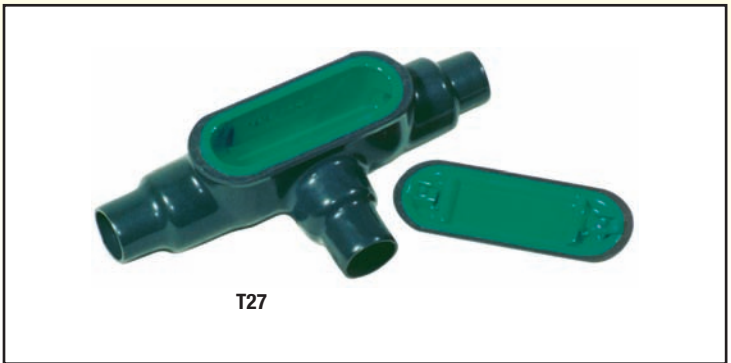
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane internal coating
- 10 trade sizes from 1/2" through 4"
- Sealing sleeves on all conduit openings
- Form 7 style cover uses retained stainless screw and wedge clip design
- Form 8 style cover uses plastic encapsulated stainless steel screws with retainers built into covers for trade sizes 1/2" through 2".
- Integral V-Seal Gasket on Form 8 style, sizes 1/2" through 2"

COMPLIANCES

Steel and Aluminum

- UL 514A, 514D (E231035)
 - CSA C22.2 No. 18, CSA C22.2 No. 42
- Note: Form 7 fittings are not available with encapsulated screws.
All cover screws are stainless steel.



C FORM 8

FORM 9

C FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	
1/2"	C50	2.0	6.69	1.48	1.46	1.00	3.31	C50-A
3/4"	C75	2.3	7.78	1.73	1.27	1.19	3.94	C75-A
1"	C100	2.8	9.31	1.98	1.83	1.38	4.56	C100-A
1-1/4"	C125	4.5	11.00	2.42	2.27	1.75	5.31	C125-A
1-1/2"	C150	6.5	13.38	2.82	2.83	2.13	6.50	C150-A
2"	C200	10.3	14.25	3.60	3.83	3.00	8.56	C200-A
2-1/2"	C250	18.0	17.63	4.48	5.08	4.25	10.88	C250-A
3"	C300	20.5	17.63	4.85	5.08	4.25	10.88	C300-A
3-1/2"		10.0	20.75	5.73	6.33	5.44	13.44	C350
4"		12.0	20.75	5.73	6.33	5.44	13.44	C400

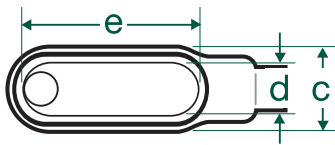
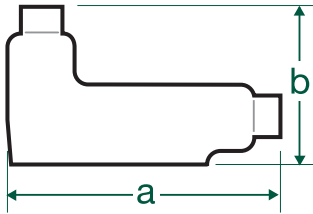
Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	C17	1.0	6.38	1.42	1.46	0.94	3.19	C17-A
3/4"	C27	1.4	7.50	1.67	1.64	1.13	3.81	C27-A
1"	C37	2.2	9.00	1.92	1.83	1.38	4.50	C37-A
1-1/4"	C47	2.7	9.94	2.35	2.27	1.75	5.00	C47-A
1-1/2"	C57	4.0	11.19	2.60	2.52	1.94	5.44	C57-A
2"	C67	5.5	11.19	3.17	3.08	2.44	6.38	C67-A
2-1/2"	C77	10.0	14.00	3.67	4.33	3.56	8.38	C77-A
3"	C87	11.8	13.75	4.42	4.33	3.56	8.38	C87-A

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

CUSTOMIZED COATING

Because of our expertise in anti-corrosion coating technologies, we offer capabilities for custom coating electrical products. For additional information please contact your PERMA-COTE sales rep or contact our manufacturing facility at: 903-843-4388.



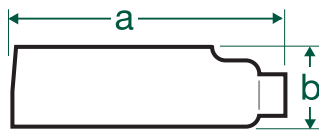
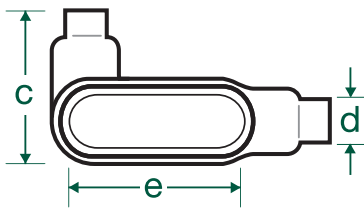
LB FORM 8

FORM 9

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LB50	1.5	5.48	2.26	1.42	1.00	3.31	LB50-A
3/4"	LB75	2.0	6.35	2.48	1.60	1.19	3.94	LB75-A
1"	LB100	2.9	7.51	2.85	1.79	1.38	4.56	LB100-A
1-1/4"	LB125	4.1	8.82	3.38	2.23	1.75	5.31	LB125-A
1-1/2"	LB150	6.5	10.67	4.07	2.79	2.13	6.50	LB150-A
2"	LB200	8.2	13.04	4.85	3.79	3.00	8.56	LB200-A
2-1/2"	LB250	18.2	15.98	6.17	5.04	4.25	10.88	LB250-A
3"	LB300	21.2	15.98	6.54	5.04	4.25	10.88	LB300-A
3-1/2"	LB350	31.2	18.92	7.60	6.29	5.44	13.44	LB350-A
4"	LB400	32.0	18.92	7.85	6.29	5.44	13.44	LB400-A

LB FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LB17	1.1	5.10	2.29	1.42	0.94	3.19	LB17-A
3/4"	LB27	1.7	5.98	2.54	1.6	1.13	3.81	LB27-A
1"	LB37	2.2	7.04	2.92	1.79	1.38	4.50	LB37-A
1-1/4"	LB47	3.1	7.79	3.35	2.23	1.75	5.00	LB47-A
1-1/2"	LB57	3.8	8.67	3.73	2.48	1.94	5.44	LB57-A
2"	LB67	5.2	10.17	4.29	3.04	2.44	6.38	LB67-A
2-1/2"	LB77	10.0	12.54	5.17	4.29	3.56	8.38	LB77-A
3"	LB87	13.0	12.54	5.92	4.29	3.56	8.38	LB87-A
3-1/2"	LB97	19.0	14.73	6.60	5.29	4.50	10.25	LB97-A
4"	LB107	18.5	14.73	7.10	5.29	4.50	10.25	LB107-A



LL FORM 8

FORM 9

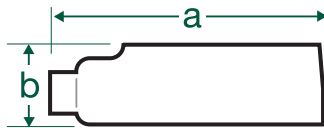
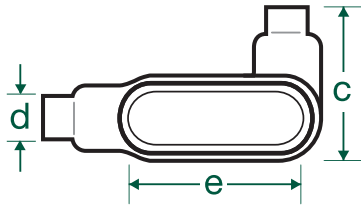
Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LL50	1.4	5.48	1.48	2.20	1.00	3.31	LL50-A
3/4"	LL75	2.1	6.35	1.73	2.35	1.19	3.94	LL75-A
1"	LL100	2.6	7.51	1.98	2.67	1.38	4.56	LL100-A
1-1/4"	LL125	4.2	8.82	2.42	3.20	1.75	5.31	LL125-A
1-1/2"	LL150	6.2	10.67	2.82	4.04	2.13	6.50	LL150-A
2"	LL200	10.5	13.04	3.60	5.04	3.00	8.56	LL200-A
2-1/2"	LL250	19.0	15.98	4.48	6.73	4.25	10.88	LL250-A
3"	LL300	21.5	15.98	4.85	6.73	4.25	10.88	LL300-A
3-1/2"	LL350	21.5	14.73	4.92	6.98	4.50	10.25	LL350-A
4"	LL400	24.5	14.73	5.42	6.98	4.50	10.25	LL400-A

LL FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LL17	1.2	5.1	1.42	2.29	0.94	3.19	LL17-A
3/4"	LL27	1.6	5.98	1.67	2.48	1.13	3.81	LL27-A
1"	LL37	2.1	7.04	1.92	2.79	1.38	4.50	LL37-A
1-1/4"	LL47	3.0	7.79	2.35	3.23	1.75	5.00	LL47-A
1-1/2"	LL57	4.1	8.67	2.60	3.60	1.94	5.44	LL57-A
2"	LL67	5.7	10.17	3.17	4.17	2.44	6.38	LL67-A
2-1/2"	LL77	10.0	12.54	3.67	5.79	3.56	8.38	LL77-A
3"	LL87	12.7	12.54	4.42	5.79	3.56	8.38	LL87-A
3-1/2"	LL97	19.0	14.73	4.92	6.98	4.50	10.25	LL97-A
4"	LL107	19.0	14.73	5.42	6.98	4.50	10.25	LL107-A



Conduit Bodies And Covers For General Service Locations

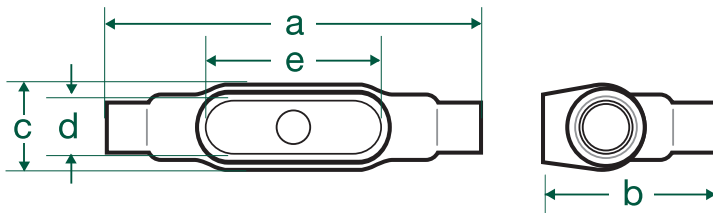


LR FORM 8

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LR50	1.4	5.48	1.48	2.20	1.00	3.31	LR50-A
3/4"	LR75	2.1	6.35	1.73	2.35	1.19	3.94	LR75-A
1"	LR100	2.6	7.51	1.98	2.67	1.38	4.56	LR100-A
1-1/4"	LR125	4.5	8.82	2.42	3.20	1.75	5.31	LR125-A
1-1/2"	LR150	6.2	10.67	2.82	4.04	2.13	6.50	LR150-A
2"	LR200	10.7	13.04	3.60	5.04	3.00	8.56	LR200-A
2-1/2"	LR250	17.7	15.98	4.48	6.73	4.25	10.88	LR250-A
3"	LR300	18.0	15.98	4.85	6.73	4.25	10.88	LR300-A
3-1/2"	LR350	21.0	14.73	4.92	6.98	4.50	10.25	LR350
4"	LR400	24.0	14.73	5.42	6.98	4.50	10.25	LR400

LR FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	LR17	1.2	5.10	1.42	2.29	0.94	3.19	LR17-A
3/4"	LR27	1.6	5.98	1.67	2.48	1.13	3.81	LR27-A
1"	LR37	2.1	7.04	1.92	2.79	1.38	4.50	LR37-A
1-1/4"	LR47	3.0	7.79	2.35	3.23	1.75	5.00	LR47-A
1-1/2"	LR57	4.1	8.67	2.60	3.60	1.94	5.44	LR57-A
2"	LR67	5.7	10.17	3.17	4.17	2.44	6.38	LR67-A
2-1/2"	LR77	10.0	12.54	3.67	5.79	3.56	8.38	LR77-A
3"	LR87	12.7	12.54	4.42	5.79	3.56	8.38	LR87-A
3-1/2"	LR97	19.0	14.73	4.92	6.98	4.50	10.25	LR97-A
4"	LR107	19.0	14.73	5.42	6.98	4.50	10.25	LR107-A



TB FORM 8

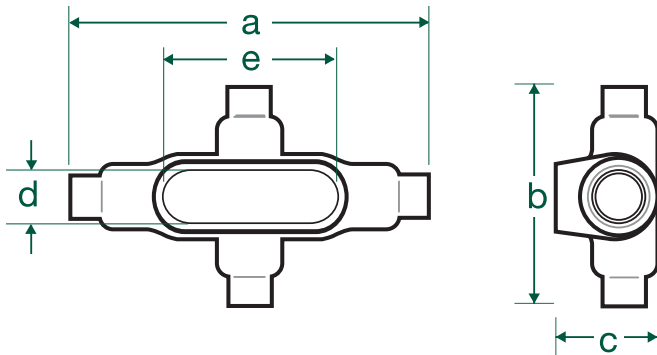
FORM 9

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	TB50	2.0	6.69	3.57	1.46	1.00	3.31	TB50-A
3/4"	TB75	2.3	7.78	3.79	1.64	1.19	3.94	TB75-A
1"	TB100	3.1	9.31	4.17	1.83	1.38	4.56	TB100-A
1-1/4"	TB125	5.2	11.00	4.38	2.27	1.75	5.31	—
1-1/2"	TB150	7.0	13.38	5.07	2.83	2.13	6.50	—
2"	TB200	11.0	16.25	5.85	3.83	3.00	8.56	—

TB FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	TB17	1.6	6.63	2.67	1.64	0.94	3.19	TB17-A
3/4"	TB27	2.1	7.75	2.92	1.83	1.13	3.81	TB27-A
1"	TB37	2.7	9.25	3.29	2.08	1.38	4.50	TB37-A
1-1/4"	TB47	3.7	9.94	3.35	2.27	1.75	5.00	TB47-A
1-1/2"	TB57	4.7	11.19	5.04	2.52	1.94	5.44	TB57-A
2"	TB67	7.0	13.19	6.17	3.08	2.44	6.38	TB67-A

Conduit Bodies And Covers For General Service Locations



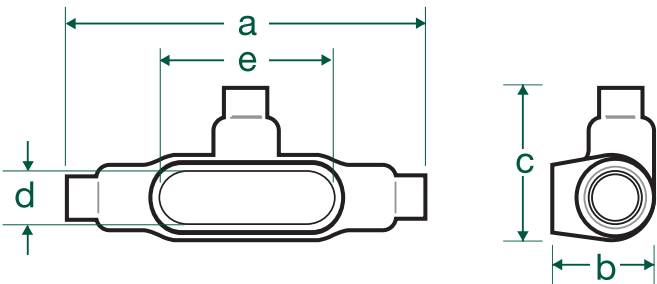
X FORM 8

FORM 9

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	X50	2.0	6.69	3.91	1.79	1.00	3.31	X50-A
3/4"	X75	2.6	7.78	4.56	2.04	1.19	3.94	X75-A
1"	X100	3.1	9.31	5.50	2.29	1.38	4.56	X150-A
1-1/4"	X125	5.2	11.00	6.63	2.67	1.75	5.31	-
1-1/2"	X150	7.5	13.38	8.25	2.51	2.13	6.50	-
2"	X200	11.7	16.25	10.25	3.60	3.00	8.56	-

X FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	X17	1.7	6.63	3.35	1.79	0.94	3.19	X17-A
3/4"	X27	2.4	7.75	3.54	2.04	1.13	3.81	X27-A
1"	X37	2.7	9.25	4.04	2.29	1.38	4.50	X37-A
1-1/4"	X47	3.6	9.94	4.17	2.35	1.75	5.00	X47-A
1-1/2"	X57	5.0	11.19	4.67	2.60	1.94	5.44	X57-A
2"	X67	7.5	13.19	5.23	3.17	2.44	6.38	X67-A



T FORM 8

FORM 9

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	T50	1.8	6.69	1.79	2.20	1.00	3.31	T50-A
3/4"	T75	2.5	7.78	2.04	2.35	1.19	3.94	T75-A
1"	T100	3.3	9.31	2.29	2.67	1.38	4.56	T100-A
1-1/4"	T125	4.9	11.00	2.67	3.20	1.75	5.31	T125-A
1-1/2"	T150	7.5	13.38	2.82	4.04	2.13	6.50	T150-A
2"	T200	11.7	16.25	3.60	5.04	3.00	8.56	T200-A
2-1/2"	T250	19.8	19.63	4.48	6.73	4.25	10.88	T250-A
3"	T300	23.5	19.63	4.85	6.73	4.25	10.88	T300-A
3-1/2"	T350	21.0	22.75	5.73	8.17	5.44	13.44	T350
4"	T400	24.0	22.75	5.98	8.17	5.44	13.44	T400

REPLACEMENT SCREW KITS

CATALOG #	Description
SCREW-KIT-1	1/2-3/4 FORM 8 ENCAP SCREWS
SCREW-KIT-2	1-1 1/4 FORM 8 ENCAP SCREWS
SCREW-KIT-3	1 1/2 FORM 8 ENCAP SCREWS
SCREW-KIT-4	2 FORM 8 ENCAP SCREWS
SCREW-KIT-5	2 1/2-3 FORM 8 ENCAP SCREWS
SCREW-KIT-6	3 1/2-4 FORM 8 ENCAP SCREWS
SCREW-KIT-7	1/2 OE ENCAP SCREWS
SCREW-KIT-8	3/4 OE ENCAP SCREWS
SCREW-KIT-9	1 1/4 LBD ENCAP SCREWS
SCREW-KIT-10	1 1/2 LBD ENCAP SCREWS
SCREW-KIT-11	2 LBD ENCAP SCREWS
SCREW-KIT-12	2 1/2-3 LBD ENCAP SCREWS
SCREW-KIT-13	2 1/2-3 MARK 9 ENCAP SCREWS
SCREW-KIT-14	3 1/2-4 MARK 9 ENCAP SCREWS

T FORM 7

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1/2"	T17	1.5	6.63	1.79	2.48	0.94	3.19	T17-A
3/4"	T27	2.1	7.75	2.04	2.67	1.13	3.81	T27-A
1"	T37	2.9	9.25	2.29	3.04	1.38	4.50	T37-A
1-1/4"	T47	3.6	9.94	2.35	3.23	1.75	5.00	T47-A
1-1/2"	T57	4.5	11.19	2.60	3.60	1.94	5.44	T57-A
2"	T67	6.5	13.19	3.17	4.17	2.44	6.38	T67-A
2-1/2"	T77	10.7	16.00	3.67	5.79	3.56	8.38	T77-A
3"	T87	15.4	16.06	4.42	5.79	3.56	8.38	T87-A
3-1/2"	T97	19.0	18.31	4.92	6.98	4.50	10.25	T97-A
4"	T107	21.0	18.31	5.42	6.98	4.50	10.25	T107-A



Conduit Bodies And Covers For General Service Locations

Mogul Style Conduit Bodies

PERMA-COTE mogul style conduit bodies are offered in numerous configurations to provide a complete coated conduit system. Mogul BG Covers are sold separately. Mogul style fitting bodies have long openings and may be used to make bends in conduit runs, for pull outlets for stiff conductors, to provide additional room for taps or splices, etc. Electrical continuity of the conduit system is maintained across assembled joints.

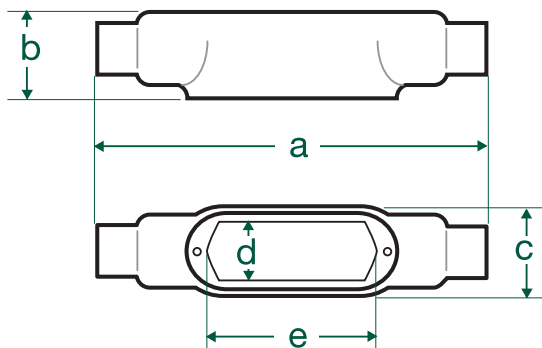
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 8 trade sizes from 1" through 4"
- Sealing sleeves on all conduit openings
- Molded-in seal between bodies and covers
- Large cover openings provide ample room

COMPLIANCES

Steel and Aluminum

- UL 514A, 514D (E231035)
- CSA C22.2 No. 18, CSA C22.2 No. 42



C8X - COVERS SOLD SEPERATELY

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1"	C8X-100G	3.2	7.31	1.92	2.27	1.88	6	C8X-100-A
1-1/4"	C8X-125G	4.2	8.50	2.35	2.27	1.88	6	C8X-125-A
1-1/2"	C8X-150G	6.0	10.38	2.60	3.08	2.63	10	C8X-150-A
2"	C8X-200G	7.0	12.25	3.17	3.08	2.63	10	C8X-200-A
2-1/2"	C8X-250G	13.8	15.63	3.67	4.33	3.81	15	C8X-250-A
3"	C8X-300G	17.5	15.63	4.42	4.33	3.81	15	C8X-300-A
3-1/2"	C8X-350G	25.0	18.75	4.92	5.33	4.75	20	C8X-350-A
4"	C8X-400G	28.0	18.75	5.42	5.33	4.75	20	C8X-400-A

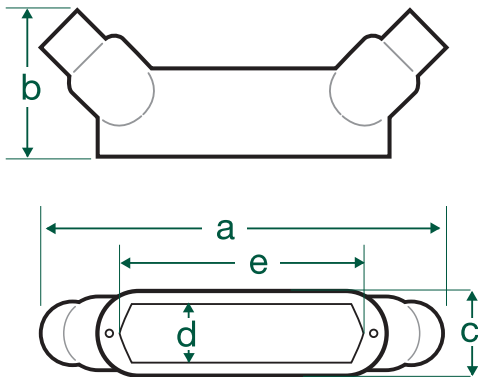
SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

BG COVERS - BODIES SOLD SEPERATELY

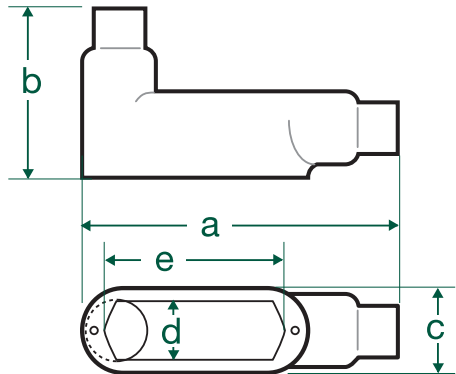
FERROUS CATALOG #	Description	Nominal Weight	ALUMINUM CATALOG #
BG48	1 - 1 1/4 BG COVER MOGUL	2.5	BG48-A
BG68	1 1/2 - 2 BG COVER MOGUL	3.2	BG68-A
BG88	2 1/2 - 3 BG COVER MOGUL	6.4	BG88-A
BG98	3 1/2 - 4 BG COVER MOGUL	9.8	BG98-A

Conduit Bodies And Covers For General Service Locations



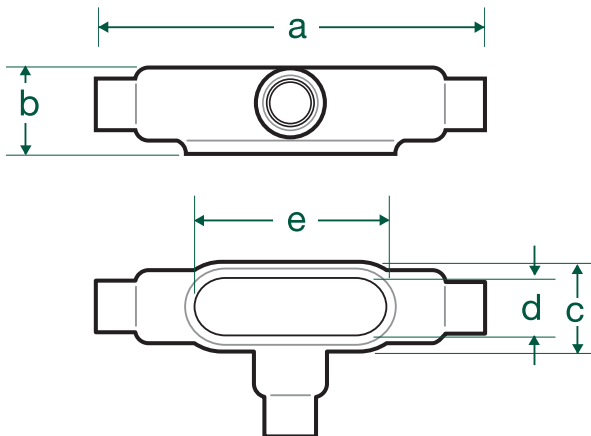
UB6X - COVERS SOLD SEPERATELY

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1"	UB6X-100G	3.2	10.19	2.73	2.27	1.88	6	UB6X-100-A
1-1/4"	UB6X-125G	4.0	11.06	3.23	2.27	1.88	6	UB6X-125-A
1-1/2"	UB6X-150G	5.9	15.00	3.54	3.08	2.63	10	UB6X-150-A
2"	UB6X-200G	7.8	15.50	4.17	3.08	2.63	10	UB6X-200-A
2-1/2"	UB6X-250G	12.5	19.75	4.85	4.33	3.81	15	UB6X-250-A
3"	UB6X-300G	17.0	19.88	5.67	4.33	3.81	15	UB6X-300-A
3-1/2"	UB6X-350G	25.0	25.38	6.42	5.33	4.75	20	UB6X-350-A
4"	UB6X-400G	28.0	25.25	6.85	5.33	4.75	20	UB6X-400-A



LB6X - COVERS SOLD SEPERATELY

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1"	LB6X-100G	3.2	9.63	2.88	2.27	1.88	6	LB6X-100-A
1-1/4"	LB6X-125G	4.2	9.88	3.32	2.27	1.88	6	LB6X-125-A
1-1/2"	LB6X-150G	6.0	14.23	3.67	3.08	2.63	10	LB6X-150-A
2"	LB6X-200G	7.0	14.73	4.23	3.08	2.63	10	LB6X-200-A
2-1/2"	LB6X-250G	13.8	18.95	5.13	4.33	3.81	15	LB6X-250-A
3"	LB6X-300G	17.5	18.95	5.88	4.33	3.81	15	LB6X-300-A
3-1/2"	LB6X-350G	25.0	24.17	6.54	5.33	4.75	20	LB6X-350-A
4"	LB6X-400G	28.0	24.17	7.04	5.33	4.75	20	LB6X-400-A



T8X - COVERS SOLD SEPERATELY

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	E	ALUMINUM CATALOG #
1"	T8X-100G	3.2	11.56	1.92	4.20	1.88	6	T8X-100-A
1-1/4"	T8X-125G	3.6	12.06	2.35	4.45	1.88	6	T8X-125-A
1-1/2"	T8X-150G	7.5	16.75	2.60	5.60	2.63	10	T8X-150-A
2"	T8X-200G	9.0	17.75	3.17	6.10	2.63	10	T8X-200-A
2-1/2"	T8X-250G	15.0	22.38	3.67	7.63	3.81	15	T8X-250-A
3"	T8X-300G	19.0	22.38	4.42	7.76	3.81	15	T8X-300-A
3-1/2"	T8X-350G	29.0	27.75	4.92	8.92	4.75	20	T8X-350-A
4"	T8X-400G	32.0	27.75	5.42	8.92	4.75	20	T8X-400-A



Cast Device Boxes and Covers

PERMA-COTE device boxes and covers are available in several configurations and may be used in coated conduit systems to accommodate wiring devices, to serve as pull boxes for conductors, or to allow for splices and taps in conductors. Covers are available separately. Electrical continuity of the conduit system is maintained across assembled joints.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 3 trade sizes from 1/2" through 1"
- Available in Standard (FS) and Deep (FD) Styles
- Internal green grounding screw is standard
- Sealing sleeves on all conduit openings
- Flat molded PVC gasket mates with all standard covers

COMPLIANCES

Steel and Aluminum

- UL 514A, 514D (E231035)
- CSA C22.2 No. 18, CSA C22.2 No. 42



ULTRA-BOND® ENSURES TOP QUALITY PVC BONDING

Surface preparation is key to the successful bonding of PVC...and successful bonding of PVC is key to successful corrosion protection. Our Ultra-Bond™ technology is a multi-million dollar system designed to achieve reliably high quality PVC bonding made possible by a process that prepares the metal substrate of the conduit in such a way that our specially formulated PVC will "stick" the way it needs to for protective performance over the long haul. This is supported by ETL-Verified testing.

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

FS/FD Series Technical Data and Covers
continued on following pages...

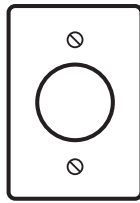
FS/FD Single Gang Cover Configurations



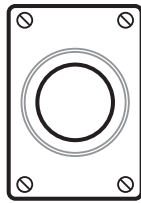
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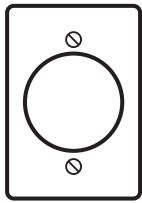
DS100G



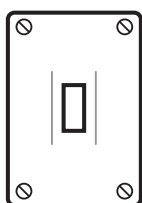
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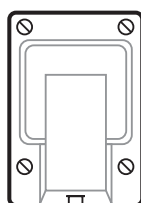
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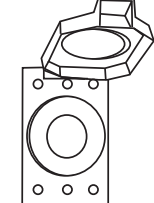
DS35



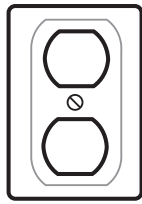
DS32G



DS128



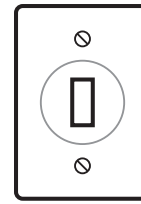
WLR1 / WLR2



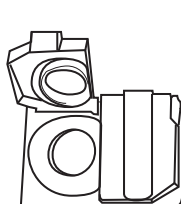
DS23



DS23G



DS32



WLRD1

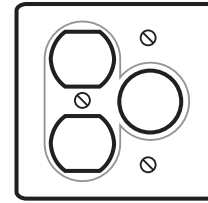
FERROUS COVERS - SINGLE GANG

CATALOG #	Description	Nominal Weight
DS32	GENERAL USE SNAP OR TOGGLE (S)	0.4
DS23G	DUPLEX CONVENIENCE RECEPTACLE (S, F)	0.4
DS35	PLUG RECEPTACLE 1 5/8" DIAMETER (S)	0.4
DS21	3P 2W GROUNDING ROUND FLUSH RECEPTACLES (S)	0.3
DS21G	3P 2W GROUNDING ROUND FLUSH RECEPTACLES (S, F)	0.3
DS23	DUPLEX CONVENIENCE RECEPTACLE (S)	0.3

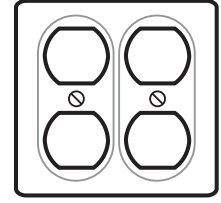
ALUMINUM COVERS

CATALOG #	Description	Nominal Weight
DS23SA	DUPLEX CONVENIENCE RECEPTACLE (S)	0.1
DS100	BLANK COVER (S)	0.1
DS128	SNAP SWITCH	0.5
DS100G	BLANK COVER CAST (S, F)	0.3
WLRD1	SPRING DOOR DUPLEX COVER 1 3/8" (F)	0.4
WLR1	SPRING DOOR SINGLE COVER 1 3/8" (F)	0.3
WLR2	SPRING DOOR SINGLE COVER 1 1/2" (F)	0.3
S1002GSA	BLANK COVER, ALUMINUM (S, F)	0.5
WLG-FS	SPRING DOOR COVER FOR GFCI (S) - HORIZONTAL	0.5
WLG-F	SPRING DOOR COVER FOR GFCI (F) - HORIZONTAL	0.5

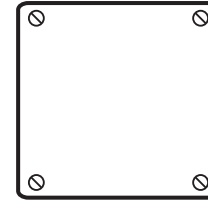
FS/FD 2 Gang Cover Configurations



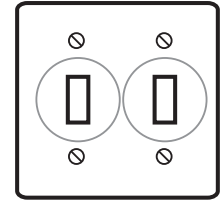
S21232



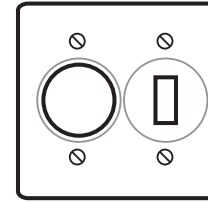
S232



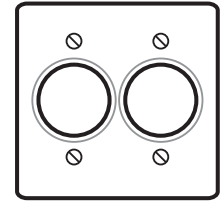
S1002



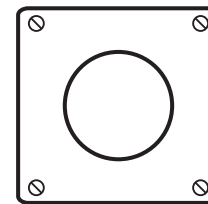
S322



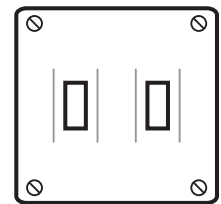
S32212



S212



S612



S322G

FERROUS COVERS - TWO GANG

CATALOG #	Description	Nominal Weight
S1002	BLANK COVER SHEET STEEL (S)	1.0
S1002G	BLANK COVER IRON ALLOY (S, F)	1.0
S21232	ROUND RECEPTACLE + DUPLEX CONVENIENCE	1.2
S232	DUPLEX CONVENIENCE (S)	1.2
S322	SNAP SWITCHES (S)	1.0
S32212	ROUND RECEPTACLE + SNAP SWITCH (S)	1.2
S212	TWO ROUND RECEPTACLES (S)	2.0
S612	20 AMP, 250 VOLT RECEPTACLE (S)	1.2
S322G	SNAP SWITCH ES IRON ALLOY (S, F)	1.2

FERROUS COVERS - THREE GANG

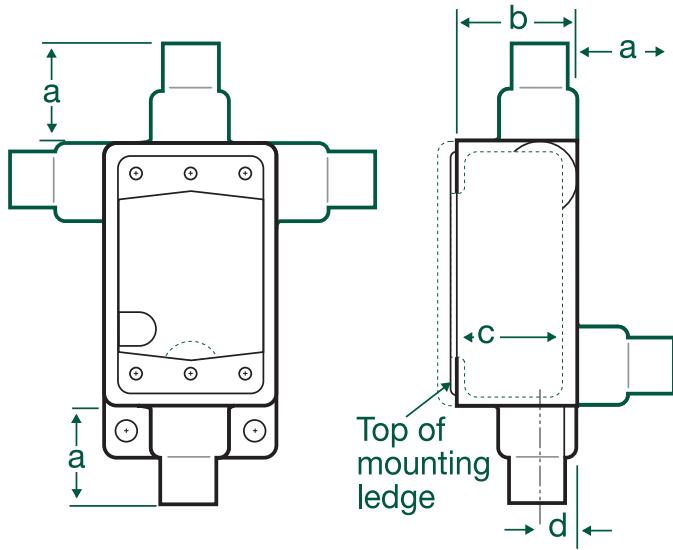
CATALOG #	Description	Nominal Weight
S323	COVER SERVICE (F)	.3

NOTE: (S) Surface Mount, (F) Flush Mount

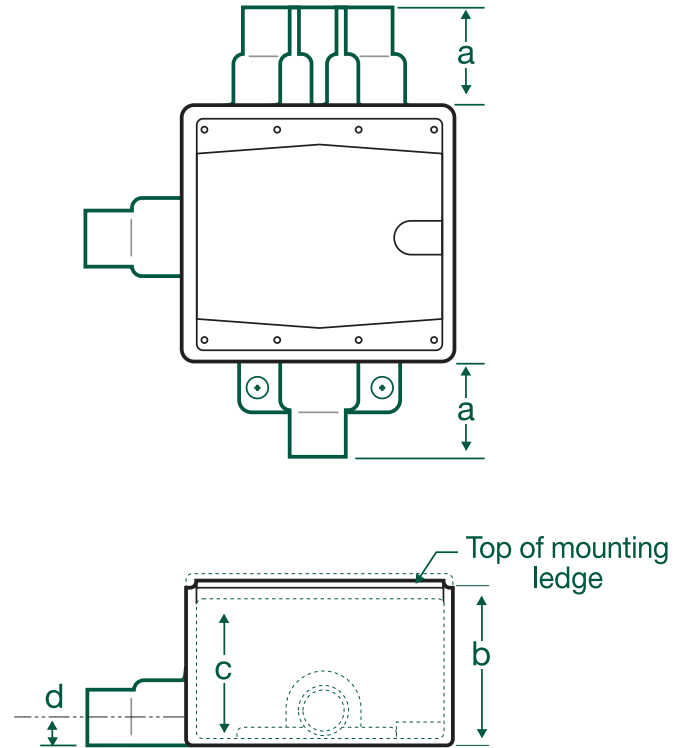


Cast Device Boxes

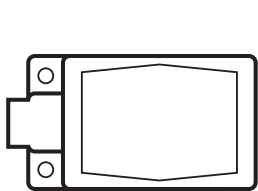
FS/FD Single Gang Dimensional Drawings



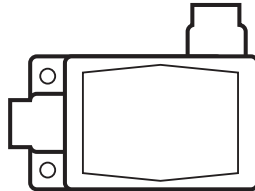
FS/FD 2 Gang Dimensional Drawings



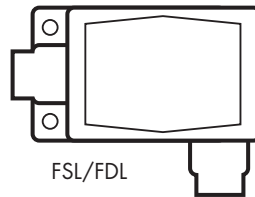
All configurations offered in both 'FS' or 'FD' box depths. FS prefix: Shallow configuration, FD prefix: Deep configuration



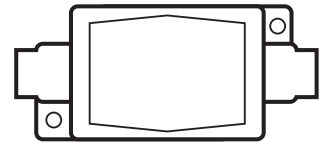
FS/FD
(single gang)



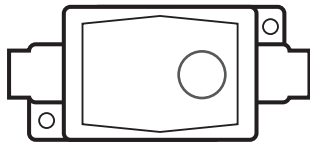
FSR/FDR



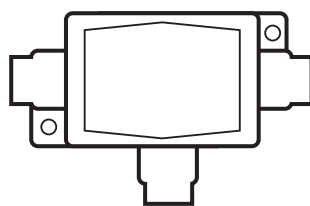
FSL/FDL



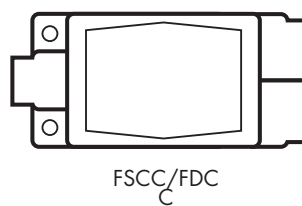
FSC/FDC



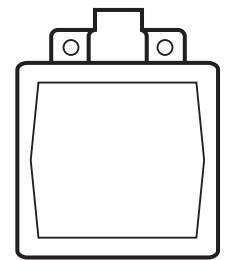
FSFA



FSCT/FDCT



FSCC/FDC



FS/FD
(two gang)



FS SERIES (SHALLOW BOX) – SINGLE GANG DEAD END

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FS-1-50	3.2	1.38	1.92	1.69	0.67	FS-1-50-A
3/4"	FS-1-75	3.3	1.63	1.92	1.69	0.79	FS-1-75-A
1"	FS-1-100	3.5	2.00	1.92	1.69	0.92	–

FS SERIES (SHALLOW BOX) – TWO GANG DEAD END

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FS-2-50	3.3	1.38	1.92	1.69	0.67	FS-2-50-A
3/4"	FS-2-75	3.4	1.63	1.92	1.69	0.79	FS-2-75-A
1"	FS-2-100	3.6	2.00	1.92	1.69	0.92	–

FD SERIES (DEEP BOX) – SINGLE GANG DEAD END

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FD-1-50	2.7	1.38	1.92	2.69	.67	FD-1-50-A
3/4"	FD-1-75	2.8	1.63	1.92	2.69	0.79	FD-1-75-A
1"	FD-1-100	3.1	2.00	1.92	2.69	0.92	FD-1-100-A

FD SERIES (DEEP BOX) – TWO GANG

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
3/4"	FD22	3.3	1.43	1.92	2.69	.079	–

FDL SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FDL-1-50	3.1	1.38	1.92	2.69	0.67
3/4"	FDL-1-75	3.3	1.63	1.92	2.69	0.79

FDR SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FDR-1-50	3.2	1.38	1.92	2.69	0.67
3/4"	FDR-1-75	3.3	1.63	1.92	2.69	0.79

FSCA SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FSCA-1-50	2.5	1.38	1.92	1.69	0.67
3/4"	FSCA-1-75	3.5	1.63	1.92	1.69	0.79

FSCT SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FSCT-1-50	2.2	1.38	1.92	1.69	0.67
3/4"	FSCT-1-75	2.5	1.63	1.92	1.69	0.79
1"	FSCT-1-100	2.8	2.00	1.92	1.69	0.79

FSCC SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FSCC-1-50	2.0	1.38	1.92	1.69	0.67
3/4"	FSCC-1-75	2.2	1.63	1.92	1.69	0.79

FSC SERIES (SHALLOW BOX) – SINGLE GANG THROUGH FEED

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FSC-1-50	2.2	1.38	1.92	1.69	0.67	FSC-1-50-A
3/4"	FSC-1-75	2.4	1.63	1.92	1.69	0.79	FSC-1-75-A
1"	FSC-1-100	2.7	2.00	1.92	1.69	0.92	–

FSC SERIES (SHALLOW BOX) – TWO GANG THROUGH FEED

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FSC-2-50	3.3	1.38	1.92	1.69	0.67	–
3/4"	FSC-2-75	3.6	1.63	1.92	1.69	0.79	FSC-2-75-A
1"	FSC-2-100	4.0	2.00	1.92	1.69	0.92	–

FDC SERIES (DEEP BOX) – SINGLE GANG THROUGH FEED

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D	ALUMINUM CATALOG #
1/2"	FDC-1-50	2.7	1.38	1.92	2.69	0.67	FDC-1-50-A
3/4"	FDC-1-75	2.8	1.63	1.92	2.69	0.79	FDC-1-75-A
1"	FDC-1-100	3.1	2.00	1.92	2.69	0.92	FDC-1-100-A

FSD SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
*3/4"	FSD-2-75	2.5	1.63	1.92	1.69	.79

*Hubs on 2 hub side are 1/2"

FSL SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FSL-1-50	2.5	1.38	1.92	1.69	0.67
3/4"	FSL-1-75	2.7	1.63	1.92	1.69	0.79

FSR SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FSR-1-50	2.0	1.38	1.92	1.69	0.67
3/4"	FSR-1-75	2.2	1.63	1.92	1.69	0.79

FDCT SERIES

Pipe Size	CATALOG #	Nominal Weight	A	B	C	D
1/2"	FDCT-1-50	3.1	1.38	1.92	2.69	0.67
3/4"	FDCT-1-75	3.4	1.63	1.92	2.69	0.79
1"	FDCT-1-100	3.9	2.00	1.92	2.69	0.92



Conduit Outlet Boxes for Hazardous Locations

PERMA-COTE GUA series conduit outlet boxes are installed in hazardous location conduit systems to serve as pull and splice boxes, to change the direction of a conduit run, to connect runs of conduit, or to provide access to conductors. They are provided with covers as standard. Inquire about special covers to allow use to mount lighting fixtures or as sealing fittings. Electrical continuity of the conduit system is maintained across assembled joints.

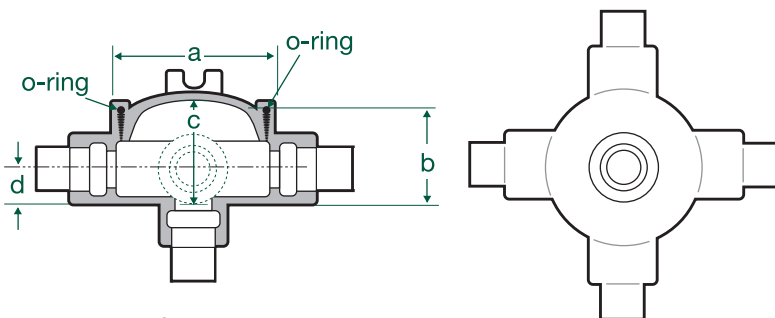
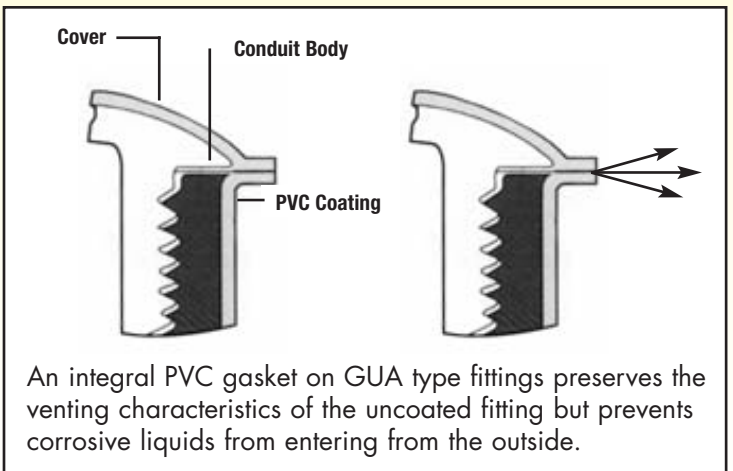
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- Trade sizes from 1/2" through 2" in various styles and configurations
- Sealing sleeves on all conduit openings
- Neoprene O-ring is standard
- Molded-in PVC seal preserves venting characteristics of fitting but seals out corrosives
- Standard material is a cast iron alloy body with a copper-free aluminum cover. Consult Factory for availability of cast iron covers
- Internal green grounding screw is standard

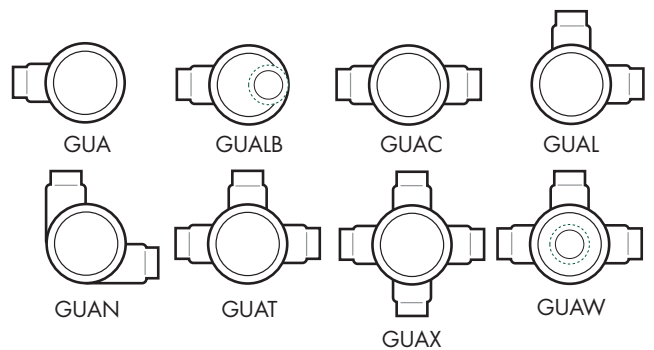
COMPLIANCES

Steel and Aluminum

- UL 514A, 514D (E231035)
- CSA C22.2 No. 18, CSA C22.2 No. 42
- NEC/CEC:
 - Class I, Division 1 & 2, Groups C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III
- ANSI Standard C-33.27
- NEMA/EEMAC 3,4



Variables referenced to the technical data charts



SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

Conduit Outlet Boxes for Hazardous Locations



GUALB

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	ALUMINUM CATALOG #	Product Dimensions			
					A	B	C	D
1/2"	—	2"	2.0	—	2.58	2.29	2.38	0.67
1/2"	GUALB50	3"	3.2	GUALB50-A	3.58	2.04	1.88	0.67
3/4"	GUALB75	3"	3.3	GUALB75-A	3.58	2.04	1.88	0.79
1"	GUALB100	3"	3.8	GUALB100-A	3.58	2.35	2.19	0.92
1-1/4"	GUALB125	3-5/8"	5.0	—	4.33	2.73	2.75	1.13
1-1/2"	GUALB150	5"	8.1	GUALB150-A	5.83	3.85	3.75	1.32
2"	GUALB200	5"	9.1	GUALB200-A	5.83	4.10	4.00	1.60

GUAC

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	ALUMINUM CATALOG #	Product Dimensions			
					A	B	C	D
1/2"	GUAC50	3"	2.0	GUAC50-A	3.58	2.04	1.88	0.67
3/4"	GUAC75	3"	2.0	GUAC75-A	3.58	2.04	1.88	0.79
1"	GUAC100	3"	3.9	GUAC100-A	3.58	2.35	2.19	0.92
1-1/4"	GUAC125	5"	9.5	GUAC150-A	5.83	3.85	3.75	1.20
1-1/2"	GUAC150	5"	11.0	GUAC150-A	5.83	3.85	3.75	1.32
2"	GUAC200	5"	11.0	GUAC200-A	5.83	4.10	4.00	1.60

GUAL

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	ALUMINUM CATALOG #	Product Dimensions			
					A	B	C	D
1/2"	GUAL50	3"	2.1	GUAL50-A	3.58	2.04	1.88	0.67
3/4"	GUAL75	3"	2.5	GUAL75-A	3.58	2.04	1.88	0.79
1"	GUAL100	3"	3.7	GUAL100-A	3.58	2.35	2.19	0.92
1-1/4"	GUAL125	5"	8.5	—	5.83	3.85	3.75	1.20
1-1/2"	GUAL150	5"	11.2	GUAL150-A	5.83	3.85	3.75	1.32
2"	GUAL200	5"	12.5	GUAL200-A	5.83	4.10	4.00	1.60

GUAN

Pipe Size	CATALOG #	Cover Opening	Nominal Weight	Product Dimensions			
				A	B	C	D
1/2"	GUAN14	2"	2.0	2.58	2.17	2.06	0.67
1/2"	GUAN16	3"	3.8	3.58	2.04	1.88	0.79
3/4"	GUAN24	2"	2.5	2.58	2.35	2.25	0.79
3/4"	GUAN26	3"	3.5	3.58	2.04	1.88	0.79
1"	GUAN36	3"	3.0	3.58	2.35	2.38	0.92
1-1/4"	GUAN47	3-5/8"	5.2	4.33	2.73	2.75	1.13
1-1/2"	GUAN59	5"	9.5	5.83	4.10	4.00	1.32
2"	GUAN69	5"	12.0	5.83	4.10	4.00	1.60

GUAT

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	ALUMINUM CATALOG #	Product Dimensions			
					A	B	C	D
1/2"	GUAT50	3"	2.8	GUAT50-A	3.58	2.04	1.88	0.67
3/4"	GUAT75	3"	3.5	GUAT75-A	3.58	2.04	1.88	0.79
1"	GUAT100	3"	3.2	GUAT100-A	3.58	2.35	2.19	0.92
1-1/4"	GUAT125	3-5/8"	5.7	—	4.33	2.73	2.75	1.13
1-1/2"	GUAT150	5"	9.1	GUAT150-A	5.83	3.85	3.75	1.32
2"	GUAT200	5"	10.0	GUAT200-A	5.83	4.10	4.00	1.60

GUAW

Pipe Size	CATALOG #	Cover Opening	Nominal Weight	Product Dimensions			
				A	B	C	D
1/2"	GUAW14	2"	2.0	2.58	1.85	1.75	0.67
1/2"	GUAW16	3"	2.0	3.58	2.04	1.88	0.67
3/4"	GUAW24	2"	3.0	2.58	2.04	2.00	0.79
3/4"	GUAW26	3"	3.0	3.58	2.04	1.88	0.79

GUAX

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	ALUMINUM CATALOG #	Product Dimensions			
					A	B	C	D
1/2"	GUAX50	3"	3.8	GUAX50-A	3.58	2.04	1.88	0.67
3/4"	GUAX75	3"	2.8	GUAX75-A	3.58	2.04	1.88	0.79
1"	GUAX100	3"	4.2	GUAX100-A	3.58	2.35	2.19	0.92
1-1/4"	GUAX125	3-5/8"	4.8	—	4.33	2.73	2.75	1.13
1-1/2"	GUAX150	5"	11.7	GUAX150-A	5.83	3.85	3.75	1.32
2"	GUAX200	5"	12.5	GUAX200-A	5.83	4.10	4.00	1.60

GUAD

Pipe Size	FERROUS CATALOG #	Cover Opening	Nominal Weight	Product Dimensions			
				A	B	C	D
1/2"	GUAD14	2"	2.0	2.58	1.85	1.75	0.67
1/2"	GUAD16	3"	3.2	3.58	2.04	1.88	0.67
3/4"	GUAD24	2"	3.5	2.58	2.04	2.00	0.79
3/4"	GUAD26	3"	3.8	3.58	2.04	1.88	0.79
1"	GUAD36	3"	3.8	3.58	2.35	2.19	0.92
1-1/4"	GUAD49	5"	10.9	5.83	3.85	3.75	1.13



Sealing Fittings

PERMA-COTE Sealing Fittings are used in conduit runs to stop gasses, vapors or flames from migrating from one part of the conduit system to another. This limits the spread of any potential explosion, enhancing safety. The PVC and urethane coatings of the fittings protects them from corrosive atmospheres so they can continue to function in hazardous locations. These fittings are available in several different configurations and with optional breathers and drains to accommodate installation in a variety of locations and positions. The EY, EYM, EYD and EYDEF styles of fittings are for installation in vertical conduit runs. The EYA, EYAM and EYSEF style fittings are for installation in either vertical or horizontal runs. The EZS and EZDM style fittings may be used in any angle of conduit run.

These **PERMA-COTE** sealing fittings should be used with a suitable system of sealing compound, such as Chico A, Chico X or Chico A-P from Crouse-Hinds. Follow the installation instructions included with the sealing compound.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 10 trade sizes from 1/2" through 4"
- Sealing sleeves on all conduit openings
- EYSEF and EYDEF seals have 40% wire fill capacity
- EYD and EZD fittings include a drain for condensate
- EZD fittings may be used at any conduit angle and include drain

COMPLIANCES

• NEC/CEC:

EYS 1-3, 11-31, 16-36,
116-316

- Class I, Division 1 & 2,
Groups A, B, C, D
- Class II, Division 1,
Groups E, F, G
- Class II, Division 2,
Groups F, G
- Class III

EYS 41-101, 416-1016,
EYSX 11-81,
EYD 11-101, 116-1016,
EYDX 11-81

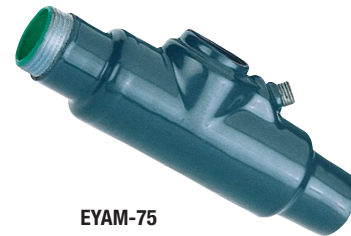
- Class I, Division 1 & 2,
Groups B, C, D
- Class II, Division 1,
Groups E, F, G
- Class II, Division 2,
Groups F, G
- Class III

EYS 29, 4-014, 46-0146,
EYS 1-8, 16-86,
EYD 1-10, 16-106,
EZD 10-60, 111-611

- Class I, Division 1 & 2,
Groups C, D
- Class II, Division 1,
Groups F, G
- Class II, Division 2,
Groups F, G
- Class III

EYSX 9-10

- Class I, Division 1 & 2,
Groups C, D
- Class II, Division 1,
Groups E, F, G
- Class II, Division 2,
Groups F, G
- Class III



EYAM-75



EYD-75

EYDM-75

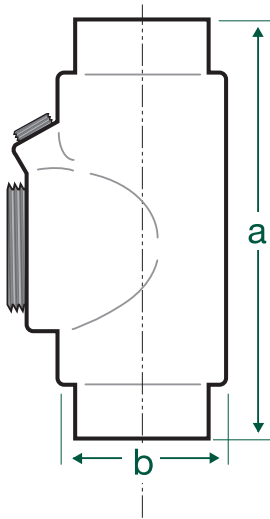


EZS-75

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

These **PERMA-COTE** sealing fittings should be used with a suitable system of sealing compound, such as Chico A, Chico X or Chico A-P from Crouse-Hinds. Follow the installation instructions included with the sealing compound.



EY - FEMALE HUBS

FOR SEALING IN VERTICAL POSITIONS ONLY

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EY-50	1.0	4.28	1.33	1.63	EY-50-A
3/4"	EY-75	1.5	5.25	1.58	1.91	EY-75-A
1"	EY-100	2.1	6.31	1.83	2.38	EY-100-A

EYM - MALE/FEMALE HUBS

FOR SEALING IN VERTICAL POSITIONS ONLY

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYM-50	1.5	4.78	1.33	1.63	EYM-50-A
3/4"	EYM-75	1.5	5.25	1.58	1.91	EYM-75-A
1"	EYM-100	2.3	6.31	1.83	2.38	EYM-100-A

EYA - FEMALE HUBS FOR SEALING

IN VERTICAL OR HORIZONTAL POSITIONS

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYA-50	1.3	4.69	1.33	1.16	EYA-50-A
3/4"	EYA-75	1.1	5.19	1.58	1.25	EYA-75-A
1"	EYA-100	2.2	6.31	1.83	1.38	EYA-100-A
1-1/4"	EYA-125	3.0	7.56	2.27	1.72	—
1-1/2"	EYA-150	3.8	8.50	2.52	2.06	—
2"	EYA-200	5.5	10.25	3.08	2.31	—
2-1/2"	EYA-250	10.0	11.50	3.58	2.69	EYA-250-A
3"	EYA-300	11.2	12.50	4.33	3.31	EYA-300-A
3-1/2"	EYA-350	14.5	13.19	4.83	3.44	EYA-350-A
4"	EYA-400	16.0	13.75	5.33	3.69	EYA-400-A

EYSEF - EXPANDED FILL FEMALE HUBS FOR SEALING IN VERTICAL OR HORIZONTAL POSITIONS

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYSEF-50	1.5	4.69	1.58	1.25	EYSEF-50-A
3/4"	EYSEF-75	2.1	5.81	1.83	1.38	EYSEF-75-A
1"	EYSEF-100	2.7	7.06	2.27	1.72	EYSEF-100-A
1-1/4"	EYSEF-125	3.7	8.75	3.08	2.31	EYSEF-125-A
1-1/2"	EYSEF-150	4.7	9.25	3.08	2.31	EYSEF-150-A
2"	EYSEF-200	6.7	12.50	4.33	3.31	EYSEF-200-A
2-1/2"	EYSEF-250	7.7	13.19	4.83	3.44	EYSEF-250-A
3"	EYSEF-300	8.7	13.75	5.33	3.69	EYSEF-300-A
3-1/2"	EYSEF-350	9.7	15.06	6.58	4.59	EYSEF-350-A
4"	EYSEF-400	10.7	15.06	6.58	4.59	EYSEF-400-A

EYAM - MALE/FEMALE HUBS FOR SEALING IN VERTICAL OR HORIZONTAL POSITIONS

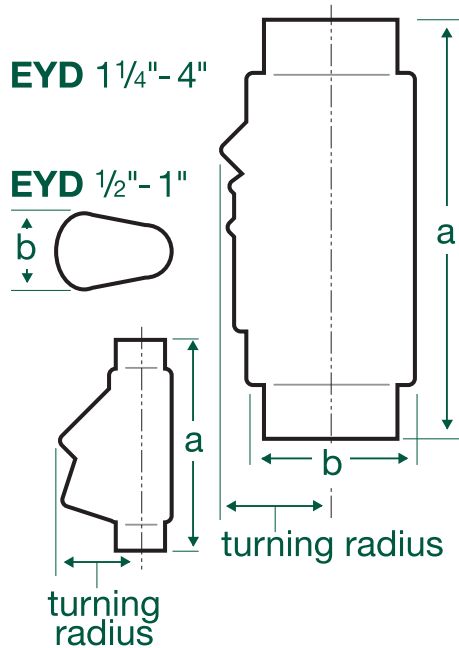
Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYAM-50	1.5	5.19	1.33	1.16	EYAM-50-A
3/4"	EYAM-75	1.2	5.19	1.58	1.25	EYAM-75-A
1"	EYAM-100	2.6	6.31	1.83	1.38	EYAM-100-A
1-1/4"	EYAM-125	2.8	7.56	2.27	1.72	—
1-1/2"	EYAM-150	3.7	8.50	2.52	2.06	—
2"	EYAM-200	5.6	10.25	3.08	2.31	—
2-1/2"	EYAM-250	13.2	11.50	3.58	2.69	—
3"	EYAM-300	11.2	12.50	4.33	3.31	—
3-1/2"	EYAM-350	14.5	13.19	4.83	3.44	—
4"	EYAM-400	1.5	13.75	5.33	3.69	—

Sealing Fittings continued on following pages...



Sealing Fittings

These **PERMA-COTE** sealing fittings should be used with a suitable system of sealing compound, such as Chico A, Chico X or Chico AP from Crouse-Hinds. Follow the installation instructions included with the sealing compound.



EYD - FEMALE HUBS WITH DRAIN.

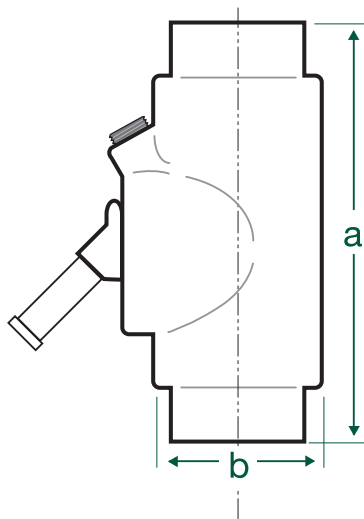
FOR SEALING IN VERTICAL POSITIONS ONLY.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYD-50	1.4	4.28	1.58	1.63	EYD-50-A
3/4"	EYD-75	1.7	5.19	1.83	1.91	EYD-75-A
1"	EYD-100	2.3	6.31	2.27	2.38	EYD-100-A
1-1/4"	EYD-125	2.5	7.56	2.27	1.84	EYD-125-A
1-1/2"	EYD-150	4.0	8.50	2.52	2.06	EYD-150-A
2"	EYD-200	4.7	10.25	3.08	2.31	EYD-200-A
2-1/2"	EYD-250	9.0	11.50	3.58	2.69	EYD-250-A
3"	EYD-300	10.2	12.50	4.33	3.31	EYD-300-A
3-1/2"	EYD-350	10.5	13.19	4.83	3.44	EYD-350-A
4"	EYD-400	4.0	13.75	5.33	3.50	EYD-400-A

EYM - MALE/FEMALE HUBS WITH DRAIN.

FOR SEALING IN VERTICAL POSITIONS ONLY.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYDM-50	2.7	4.28	1.58	1.63	EYDM-50-A
3/4"	EYDM-75	2.8	5.19	1.83	1.91	EYDM-75-A
1"	EYDM-100	2.9	6.31	2.27	2.38	EYDM-100-A
1-1/4"	EYDM-125	2.6	7.56	2.27	1.84	EYDM-125-A
1-1/2"	EYDM-150	3.7	8.50	2.52	2.06	EYDM-150-A
2"	EYDM-200	5.2	10.25	3.08	2.31	EYDM-200-A
2-1/2"	EYDM-250	9.5	11.50	3.58	2.69	EYDM-250-A
3"	EYDM-300	11.3	12.50	4.33	3.31	EYDM-300-A
3-1/2"	EYDM-350	12.5	13.19	4.83	3.44	EYDM-350-A
4"	EYDM-400	16.7	13.75	5.33	3.50	EYDM-400-A

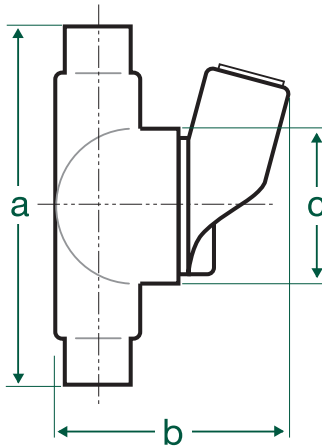


EYDEF - EXPANDED FILL FEMALE HUBS WITH DRAIN.

FOR SEALING IN VERTICAL POSITIONS ONLY.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	Turning Radius	Aluminum Catalog #
1/2"	EYDEF-50	1.7	4.69	1.83	1.91	EYDEF-50-A
3/4"	EYDEF-75	2.3	5.81	2.27	2.38	EYDEF-75-A
1"	EYDEF-100	2.5	7.06	2.27	1.84	EYDEF-100-A
1-1/4"	EYDEF-125	4.0	8.75	3.08	2.31	EYDEF-125-A
1-1/2"	EYDEF-150	4.7	9.25	3.08	2.31	EYDEF-150-A
2"	EYDEF-200	9.0	12.50	4.33	3.31	EYDEF-200-A
2-1/2"	EYDEF-250	10.2	13.19	4.83	3.44	EYDEF-250-A
3"	EYDEF-300	10.5	13.75	5.33	3.50	EYDEF-300-A

These **PERMA-COTE** sealing fittings should be used with a suitable system of sealing compound, such as Chico A, Chico X or Chico A-P from Crouse-Hinds. Follow the installation instructions included with the sealing compound.



EZS- FEMALE HUBS.

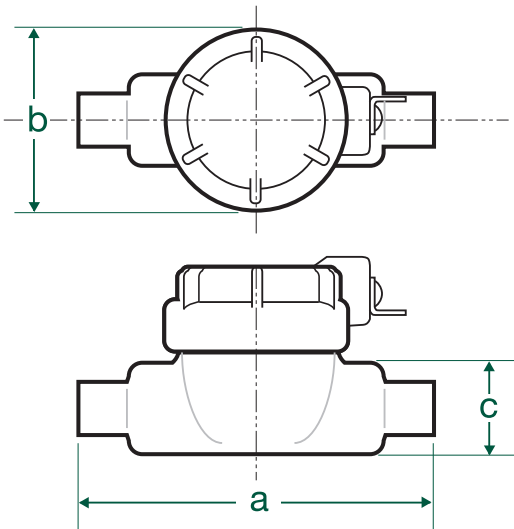
FOR SEALING IN ANY POSITION.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	C	Turning Radius
1/2"	EZS-50	2.0	5.19	3.71	2.58	1.88
3/4"	EZS-75	2.3	5.19	3.71	2.58	1.88
1"	EZS-100	2.7	5.94	4.05	3.08	2.13
1-1/4"	EZS-125	3.5	6.06	4.49	3.08	2.31
1-1/2"	EZS-150	4.0	6.19	4.64	3.33	2.34
2"	EZS-200	8.2	11.06	5.49	5.27	3.28
2-1/2"	EZS-250	8.5	11.94	5.92	5.27	3.38
3"	EZS-300	9.0	12.63	6.58	5.96	3.88

EZDM- MALE/FEMALE HUBS WITH DRAIN.

FOR SEALING IN ANY POSITION.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	C	Turning Radius
1/2"	EZDM-50	2.0	5.19	3.71	2.58	1.88
3/4"	EZDM-75	2.4	5.69	3.71	2.58	1.88
1"	EZDM-100	3.0	6.94	4.05	3.08	2.13
1-1/4"	EZDM-125	4.0	7.56	4.49	3.08	2.31
1-1/2"	EZDM-150	4.6	8.19	4.64	3.33	2.34
2"	EZDM-200	6.9	11.06	5.49	5.27	3.28
2-1/2"	EZDM-250	9.2	11.94	5.92	5.27	3.38
3"	EZDM-300	8.7	12.63	6.58	5.96	3.88



EZD- FEMALE HUBS

WITH DRAIN AND INSPECTION COVER.

Pipe Size	FERROUS Catalog #	Nominal Weight	A	B	C	Turning Radius
1/2"	EZD-50		5.19	3.08	3.46	2.06
3/4"	EZD-75		5.69	3.08	3.71	2.19
1"	EZD-100		6.94	3.58	3.96	2.44
1-1/4"	EZD-125		7.44	3.58	4.39	2.63
1-1/2"	EZD-150		8.19	3.58	4.64	2.69
2"	EZD-200		11.13	5.64	5.33	3.69



Knockout Hubs

PERMA-COTE ST style knockout hubs are used to terminate conduit runs through the wall of a sheet metal electrical enclosure. They are available with or without grounding lug. STTB style hubs are "Through-Bulkhead" fittings used to pass conduit runs through firewalls or bulkheads. STTB style hubs perform the same function for unlimited wall thicknesses, (furnished without nipples).

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- ST and STTB available in 12 trade sizes from 1/2" through 6"
- STTB in 6 trade sizes from 1/2" through 2".
- Sealing sleeves on conduit side of hub
- Molded PVC gasket seals flush with enclosure wall.
- O-ring gasket provides additional seal

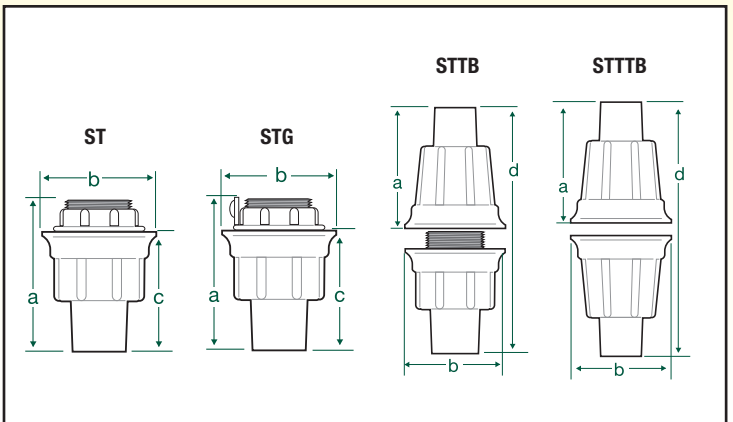
COMPLIANCES

Steel Only: ST, STG

- UL 514B (E200413)
- NEC/CEC:
 - Class I, Division 2
 - Class II, Division 1 & 2
 - Class III, Division 1 & 2

NOTE:

- All Screw-tight Hubs are listed for NEMA and UL type enclosures 2, 3, 3R, 4, 4x, 11 and 12
- Grounding and Bonding Hubs are listed for NEMA Enclosures 2, 3, 3R, 4 and 12



ST

Pipe Size	Catalog #	Nominal Weight	A	B	C	MAX WALL THICK	Aluminum Catalog #
1/2"	ST-1	0.2	1.84	2.00	1.31	0.1875	STA-1
3/4"	ST-2	0.3	2.22	2.25	1.66	0.1875	STA-2
1"	ST-3	0.4	2.66	2.50	2.03	0.25	STA-3
1-1/4"	ST-4	0.4	2.94	3.25	2.28	0.25	STA-4
1-1/2"	ST-5	0.6	3.19	3.50	2.53	0.25	STA-5
2"	ST-6	1.2	3.75	4.25	3.09	0.25	STA-6
2-1/2"	ST-7	1.5	4.22	4.75	3.28	0.25	STA-7
3"	ST-8	2.1	4.31	5.25	3.38	0.25	STA-8
3-1/2"	ST-9	3.0	4.38	5.50	3.44	0.25	STA-9
4"	ST-10	3.5	4.44	6.25	3.50	0.25	STA-10
5"	ST-11	5.4	4.94	7.50	4.00	0.25	STA-11
6"	ST-12	6.9	5.00	8.50	4.00	0.3125	STA-12

STG

Pipe Size	Catalog #	Nominal Weight	A	B	C	MAX WALL THICK	Aluminum Catalog #
1/2"	STG-1	0.2	1.84	2.00	1.31	0.1875	STAG-1
3/4"	STG-2	0.3	2.22	2.25	1.66	0.1875	STAG-2
1"	STG-3	0.4	2.66	2.50	2.03	0.25	STAG-3
1-1/4"	STG-4	0.4	2.94	3.25	2.28	0.25	STAG-4
1-1/2"	STG-5	0.6	3.19	3.50	2.53	0.25	STAG-5
2"	STG-6	1.2	3.75	4.25	3.09	0.25	STAG-6
2-1/2"	STG-7	1.5	4.22	4.75	3.28	0.25	STAG-7
3"	STG-8	2.1	4.31	5.25	3.38	0.25	STAG-8
3-1/2"	STG-9	3.0	4.38	5.50	3.44	0.25	STAG-9
4"	STG-10	3.5	4.44	6.25	3.50	0.25	STAG-10
5"	STG-11	5.4	4.94	7.50	4.00	0.25	STAG-11
6"	STG-12	6.9	5.00	8.50	4.00	0.3125	STAG-12

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

Knockout Hubs & Conduit Outlet Boxes for Hazardous Locations



STTB

Pipe Size	Catalog #	Nominal Weight	A	B	C	MAX WALL THICK	Aluminum Catalog #
1/2"	STTB-1	0.5	1.84	2.00	3.68	0.1875	STTB-1
3/4"	STTB-2	0.5	2.22	2.25	4.44	0.1875	STTB-2
1"	STTB-3	0.7	2.66	2.50	5.32	0.25	STTB-3
1-1/4"	STTB-4	1.0	2.94	3.25	5.88	0.25	STTB-4
1-1/2"	STTB-5	1.2	3.19	3.50	6.38	0.25	STTB-5
2"	STTB-6	1.7	3.75	4.25	7.50	0.25	STTB-6
2-1/2"	STTB-7	2.5	4.22	4.75	8.44	0.25	STTB-7
3"	STTB-8	3.0	4.31	5.25	8.62	0.25	STTB-8
3-1/2"	STTB-9	4.2	4.38	5.50	8.76	0.25	STTB-9
4"	STTB-10	5.9	4.44	6.25	8.88	0.25	STTB-10

STTB

Pipe Size	Catalog #	Nominal Weight	A	B	C	MAX WALL THICK	Aluminum Catalog #
1/2"	STTB-1	1.0	1.84	2.00	3.68	*	STTB-1
3/4"	STTB-2	1.0	2.22	2.25	4.44	*	STTB-2
1"	STTB-3	1.4	2.66	2.50	5.32	*	STTB-3
1-1/4"	STTB-4	2.0	2.94	3.25	5.88	*	STTB-4
1-1/2"	STTB-5	2.4	3.19	3.50	6.38	*	STTB-5
2"	STTB-6	3.4	3.75	4.25	7.50	*	STTB-6

* Unlimited wall thickness— determined by nipple used.

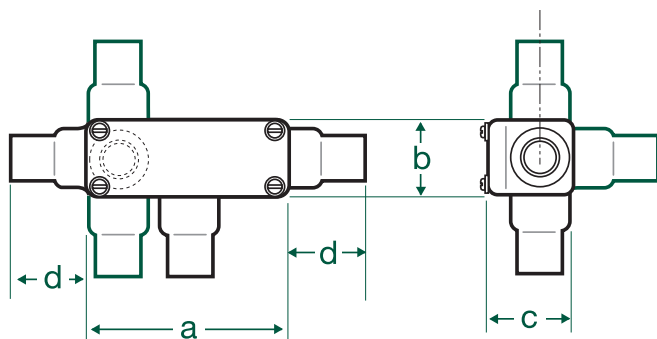
PERMA-COTE OE Series Conduit Outlet Boxes are installed in hazardous location conduit systems to serve as pulling and splicing fittings, to connect runs of conduit, to change the direction of a conduit run, or to provide access to conductors. They are provided with covers. Electrical continuity of the conduit system is maintained across assembled joints.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- Available in 1/2" or 3/4" trade sizes
- Molded in PVC cover to body gasket seals corrosives out
- Sealing sleeves on all conduit openings
- Compact design saves space
- Encapsulated stainless steel cover screws

COMPLIANCES

- NEC/CEC:
 - Class I, Division 1 & 2, Groups C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III



OET OUTLET BOXES

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D
1/2"	OET50	2.2	4.14	1.64	2.31	1.19
3/4"	OET75	3.0	4.39	1.96	2.81	1.44

OELB OUTLET BOXES

Pipe Size	FERROUS CATALOG #	Nominal Weight	A	B	C	D
1/2"	OELB50	2.2	4.14	1.64	1.89	1.19
3/4"	OELB75	3.0	4.39	1.96	2.14	1.44

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



Conduit Unions



UNY50

PERMA-COTE UNF unions are used to connect conduit to conduit or to allow for future changes to the conduit system. Female threads are provided at each end.

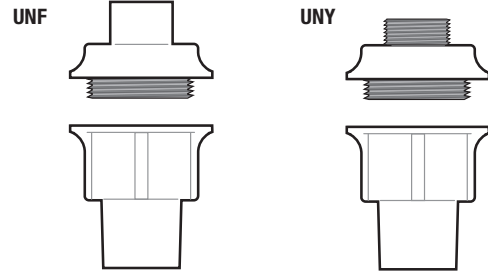
PERMA-COTE UNY unions are used to connect conduit to a conduit fitting, junction box, or device enclosure. One end is a male thread and the other is female.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 12 trade sizes from 1/2" through 6".
- Sealing sleeves on all conduit openings
- Molded PVC gasket seals fitting

COMPLIANCES

- NEC/CEC:
- UNF/UNY 1/2" through 1"
 - Class I, Division 1 & 2, Groups A, B, C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III
- UNF/UNY 905, 1005
 - Class I, Division 1 & 2, Groups B, C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III
- UNF, UNY - all sizes
 - Class I, Division 1 & 2, Groups C, D
 - Class II, Division 1, Groups E, F, G
 - Class II, Division 2, Groups F, G
 - Class III



UNF

Pipe Size	FERROUS Catalog #	Nominal Weight	Length	Max Dia.	Aluminum Catalog #
1/2"	UNF50	0.3	2.81	1.58	UNF-50-A
3/4"	UNF75	0.5	3.25	1.89	UNF-75-A
1"	UNF100	0.7	4.00	1.96	UNF-100-A
1-1/4"	UNF125	1.5	4.75	2.83	UNF-125-A
1-1/2"	UNF150	2.3	5.63	3.14	UNF-150-A
2"	UNF200	3.6	6.56	3.89	UNF-200-A
2-1/2"	UNF250	5.0	7.19	4.39	UNF-250-A
3"	UNF300	6.5	7.44	5.14	UNF-300-A
3-1/2"	UNF350	8.2	8.13	5.77	UNF-350-A
4"	UNF400	10.0	8.13	6.27	UNF-400-A
5"	UNF500	12.5	7.81	8.27	-
6"	UNF600	14.8	7.81	9.39	-

UNY

Pipe Size	FERROUS Catalog #	Nominal Weight	Length	Max Dia.	Aluminum Catalog #
1/2"	UNY50	0.4	3.38	1.58	UNY-50-A
3/4"	UNY75	0.7	3.94	1.89	UNY-75-A
1"	UNY100	1.3	4.75	1.96	UNY-100-A
1-1/4"	UNY125	2.6	5.69	2.83	UNY-125-A
1-1/2"	UNY150	3.9	6.56	3.14	UNY-150-A
2"	UNY200	4.2	7.75	3.89	UNY-200-A
2-1/2"	UNY250	5.5	8.63	4.39	UNY-250-A
3"	UNY300	7.5	9.00	5.14	UNY-300-A
3-1/2"	UNY350	8.4	9.50	5.77	UNY-350-A
4"	UNY400	10.5	9.63	6.27	UNY-400-A
5"	UNY500	12.0	9.25	8.27	-
6"	UNY600	14.9	9.38	9.39	-

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

PERMA-COTE EL style malleable elbows are used in a conduit run to change direction 90° or to terminate at a fitting or box. They are available with male threads only, female threads only, or male and female threads.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- Various configurations in 10 trade sizes from 1/2" through 4".
- Sealing sleeves on all conduit openings

COMPLIANCES

- NEC/CEC
1/2", 3/4", 1"
Class I, Division 1 & 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III
- All sizes
Class I, Division 1 & 2, Groups C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III

EL-195



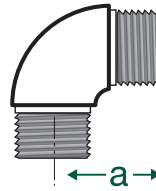
8-50



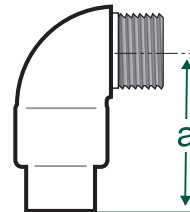
EL-950



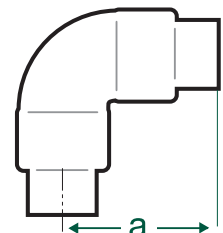
90° Male



90° Male & Female



90° Female



MALLEABLE ELBOWS 90° MALE-MALE

Pipe Size	FERROUS CATALOG #	A	Nominal Weight
1/2"	EL-195	1.44	0.3
3/4"	EL-295	1.63	0.5
1"	EL-395	1.88	0.7

MALLEABLE ELBOWS 90° MALE-FEMALE

Pipe Size	FERROUS CATALOG #	A	Nominal Weight	ALUMINUM CATALOG #
1/2"	8-50	2.03	0.3	8-50-A
3/4"	8-75	2.38	0.5	8-75-A
1"	8-100	2.88	1.2	8-100-A

MALLEABLE ELBOWS 90° FEMALE-FEMALE

Pipe Size	FERROUS CATALOG #	A	Nominal Weight	ALUMINUM CATALOG #
1/2"	EL-950	2.03	0.7	EL-950-A
3/4"	EL-975	2.50	0.9	EL-975-A
1"	EL-9100	3.00	1.2	EL-9100-A
1-1/4"	EL-9125	3.50	2.4	EL-9125-A
1-1/2"	EL-9150	5.50	3.0	EL-9150-A
2"	EL-9200	7.00	6.0	EL-9200-A
2-1/2"	EL-9250	8.44	7.9	—

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



Service Entrance Elbows

PERMA-COTE LBY type elbows are used as service entrance elbows between service entrance and vertical weatherhead conduit runs, to change direction of a conduit run 90° when space is limited, and for pull outlets. They may be used for general service or hazardous locations.

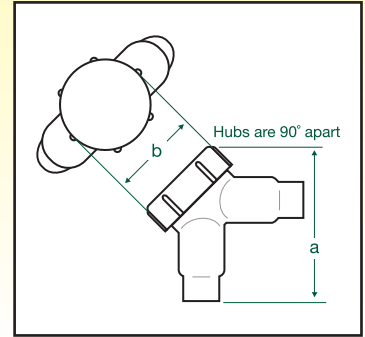
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 5 trade sizes from 1/2" through 1-1/2".
- Sealing sleeves on all conduit openings
- Molded PVC gasket seals fitting cover to body

COMPLIANCES

Series LBY-50 through LBY-150

- NEC/CEC
Class I, Division 1 & 2, Groups C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III



LBY SERIES

FOR GENERAL SERVICE OR HAZARDOUS LOCATIONS

Pipe Size	FERROUS Catalog #	A	B	Nominal Weight
1/2"	LBY-50	3.35	2.08	1.0
3/4"	LBY-75	3.98	2.33	1.2
1"	LBY-100	4.29	2.58	1.7
1-1/4"	LBY-125	5.07	3.02	2.5
1-1/2"	LBY-150	5.79	3.46	2.7



PERMA-COTE SUPPORTS PROPER PRODUCT PERFORMANCE THROUGH AUTHORIZED INSTALLER CERTIFICATION TRAINING

We support proper installation of PERMA-COTE in many ways. We recommend Corrosion College, a hands-on, two day educational experience that covers installation procedures in addition to topics related to corrosion theory and prevention. We also provide specialized tools to ensure that installation can be performed quickly, easily, and without damage. Plus...we provide an installer certification program that teaches proper installation techniques for maximum conduit performance.

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

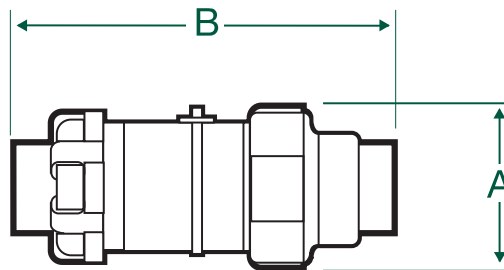
PERMA-COTE AX type expansion joints are used to connect two lengths of conduit subject to longitudinal movement, including that caused in long runs by thermal expansion and contraction.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 10 trade sizes from 1/2" through 4".
- Sealing sleeves on all conduit openings
- Available with either 4" or 8" maximum movement
- Internally grounded

COMPLIANCES

- NEC Article 250-77
- NEC Article 300-7 (b)
- NEMA FB1



8" TRAVEL XJG SERIES

Pipe Size	FERROUS Catalog #	A	B	Nominal Weight	Aluminum Catalog #
1/2"	AX850	1.83	11.75	1.9	AX850-A
3/4"	AX875	2.20	12.25	3.0	AX875-A
1"	AX8100	2.51	13.25	3.3	AX8100-A
1-1/4"	AX8125	3.27	14.06	4.7	AX8125-A
1-1/2"	AX8150	3.76	14.87	7.3	AX8150-A
2"	AX8200	4.83	16.25	10.7	AX8200-A
2-1/2"	AX8250	4.95	17.31	14.4	AX8250-A
3"	AX8300	5.45	18.00	15.9	AX8300-A
3-1/2"	AX8350	6.70	17.81	23.8	AX8350-A
4"	AX8400	6.70	17.81	25.7	AX8400-A

4" TRAVEL XJG SERIES

Pipe Size	FERROUS Catalog #	A	B	Nominal Weight	Aluminum Catalog #
1/2"	AX50	1.83	7.75	1.5	AX50-A
3/4"	AX75	2.20	8.25	2.9	AX75-A
1"	AX100	2.51	9.25	3.6	AX100-A
1-1/4"	AX125	3.27	10.06	3.8	AX125-A
1-1/2"	AX150	3.76	10.87	6.2	AX150-A
2"	AX200	4.83	12.25	7.3	AX200-A
2-1/2"	AX250	4.95	13.31	9.8	AX250-A
3"	AX300	5.45	14.00	13.6	AX300-A
3-1/2"	AX350	6.70	13.81	16.1	AX350-A
4"	AX400	6.70	13.81	22.5	AX400-A

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



Liquid Tight Connectors

PERMA-COTE liquid tight connectors are used with liquid tight conduit to wire motors, transformers, processing equipment, pumps, etc. The flexible conduit and the PVC coated connector work together to seal out water and other corrosive liquids, protecting the conductors from damage.

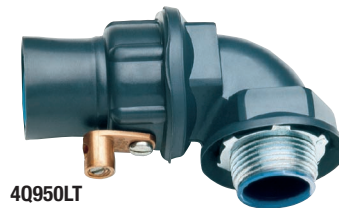
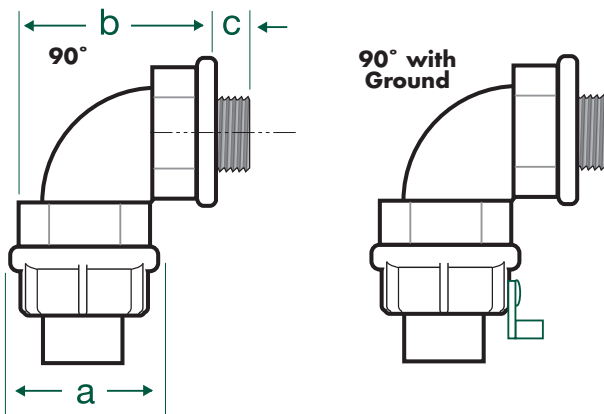
FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 13 trade sizes from 3/8" through 6".
- Sealing sleeves on all conduit openings
- Available in straight, 45° or 90° body configurations
- Available with an external grounding lug

COMPLIANCES

Steel Fittings Only

- UL 514B (E200413), UL 467 (E217890)



90° CONNECTOR

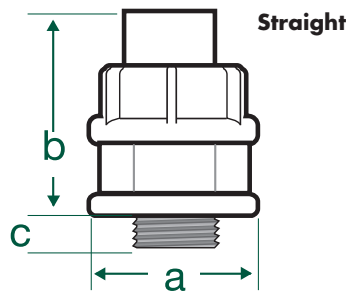
Pipe Size	FERROUS Catalog #	A	B	C	Nominal Weight	Aluminum Catalog #
1/2"	4Q950T	1.46	2.10	0.56	0.3	4Q950T-A
3/4"	4Q975T	1.74	2.54	0.56	0.4	4Q975T-A
1"	4Q9100T	1.96	3.23	0.75	0.6	4Q9100T-A
1-1/4"	4Q9125T	2.36	4.04	0.81	1.0	4Q9125T-A
1-1/2"	4Q9150T	2.80	4.48	0.81	1.7	4Q9150T-A
2"	4Q9200T	3.33	5.48	0.88	2.7	4Q9200T-A
2-1/2"	4Q9250T	3.83	10.92	1.00	3.8	—
3"	4Q9300T	4.58	12.29	1.00	4.2	—
4"	4Q9400T	5.58	14.67	1.13	6.2	—

90° CONNECTOR WITH GROUND

Pipe Size	FERROUS Catalog #	A	B	C	Ground Wire	Nominal Weight	Aluminum Catalog #
1/2"	4Q950LT	1.46	1.98	0.56	14-8	0.3	4Q950LT-A
3/4"	4Q975LT	1.96	2.85	0.75	14-4	0.4	4Q975LT-A
1"	4Q9125LT	1.96	3.10	0.75	14-4	0.6	4Q9100LT-A
1-1/4"	4Q9125LT	2.33	3.79	0.81	8/2/04	1.0	4Q9125LT-A
1-1/2"	4Q9150LT	3.33	4.48	0.81	4/3/04	1.7	4Q9150LT-A
2"	4Q9200LT	3.89	5.48	0.88	4/3/04	2.7	4Q9200LT-A
2-1/2"	4Q9250LT	4.52	10.92	1.00	2/5/04	3.8	—
3"	4Q9300LT	5.27	12.29	1.00	2/5/04	4.2	—
4"	4Q9400LT	6.21	14.67	1.13	2/5/04	6.2	—

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)

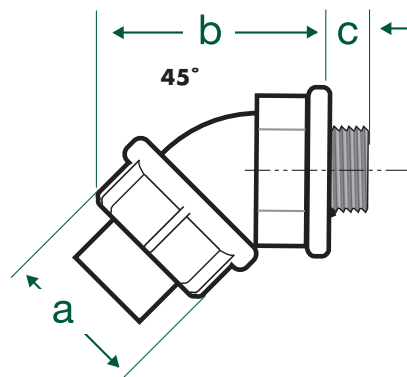


STRAIGHT CONNECTOR

Pipe Size	FERROUS Catalog #	A	B	C	Nominal Weight	Aluminum Catalog #
1/2"	4Q50T	1.46	2.06	0.56	0.2	4Q50T-A
3/4"	4Q75T	1.74	2.38	0.56	0.3	4Q100T-A
1"	4Q100T	1.96	3.06	0.75	0.4	4Q125T-A
1-1/4"	4Q125T	2.36	3.75	0.81	0.8	4Q125T-A
1-1/2"	4Q150T	2.80	4.19	0.81	0.9	4Q150T-A
2"	4Q200T	3.33	5.06	0.88	1.7	4Q200T-A
2-1/2"	4Q250T	3.83	6.13	1.00	3.0	4Q250T-A
3"	4Q300T	4.58	6.25	1.00	4.2	4Q300T-A
4"	4Q400T	5.58	6.50	1.13	6.2	4Q400T-A

STRAIGHT CONNECTOR WITH GROUND

Pipe Size	FERROUS Catalog #	A	B	C	Ground Wire	Nominal Weight	Aluminum Catalog #
1/2"	4Q50LT	1.46	2.06	0.56	14-8	0.2	4Q50LT-A
3/4"	4Q75LT	1.74	2.38	0.56	14-4	0.3	4Q75LT-A
1"	4Q100LT	1.96	3.06	0.75	14-4	0.4	4Q100LT-A
1-1/4"	4Q125LT	2.33	3.75	0.81	8/2/04	0.8	4Q125LT-A
1-1/2"	4Q150LT	3.33	4.19	0.81	4/3/04	0.9	4Q150LT-A
2"	4Q200LT	3.89	5.06	0.88	4/3/04	1.7	4Q200LT-A
2-1/2"	4Q250LT	4.52	6.13	1.00	2/5/04	3.0	4Q250LT-A
3"	4Q300LT	5.27	6.25	1.00	2/5/04	4.2	4Q300LT-A
4"	4Q400LT	6.21	6.50	1.13	2/5/04	6.2	4Q400LT-A



45° CONNECTOR

Pipe Size	FERROUS Catalog #	A	B	C	Nominal Weight
1/2"	4Q450T	1.46	2.38	0.56	0.3
3/4"	4Q475T	1.74	2.88	0.56	0.4
1"	4Q4100T	1.96	3.25	0.75	0.5
1-1/4"	4Q4125T	2.36	4.00	0.81	1.5
1-1/2"	4Q4150T	2.80	4.88	0.81	1.2
2"	4Q4200T	3.33	5.88	0.88	2.0
2-1/2"	4Q4250T	3.83	6.25	1.00	3.0
3"	4Q4300T	4.58	6.25	1.00	4.2
4"	4Q4400T	5.58	6.63	1.13	6.2

45° CONNECTOR WITH GROUND

Pipe Size	FERROUS Catalog #	A	B	C	Ground Wire	Nominal Weight
1/2"	4Q450LT	1.46	2.38	0.56	14-8	0.3
3/4"	4Q475LT	1.74	2.88	0.56	14-4	0.4
1"	4Q4100LT	1.96	3.25	0.75	14-4	0.5
1-1/4"	4Q4125LT	3.33	4.63	0.81	4/3/04	1.5
1-1/2"	4Q4150LT	3.33	4.88	0.81	4/3/04	1.2
2"	4Q4200LT	3.89	5.88	0.88	4/3/04	2.0
2-1/2"	4Q4250LT	4.52	6.25	1.00	2/5/04	3.0
3"	4Q4300LT	5.27	6.25	1.00	2/5/04	4.2
4"	4Q4400LT	6.21	6.63	1.13	2/5/04	6.2



Reducing and Split Couplings

PERMA-COTE reducing couplings are used to connect two pieces of conduit of different size. They are available in 17 different size combinations.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 17 trade sizes from 1/2" through 4".
- Sealing sleeves on all conduit openings

COMPLIANCES

- NEC/CEC:
Class I, Division 1 & 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G
Class II, Division 2, Groups F, G
Class III



REC-1007

PERMA-COTE split couplings are used to connect two pieces of conduit where the conduit can't be turned because of limited clearance between runs or a wall or other obstruction.

FEATURES

- 40 mil gray PVC exterior coating
- 2 mil green urethane interior coating
- 12 trade sizes from 1/2" through 6".
- Sealing sleeves on all conduit openings



SSP-75

REDUCING COUPLINGS

Pipe Size	FERROUS Catalog #	Nominal Weight	Aluminum Catalog #
3/4" – 1/2"	REC-0705	0.2	REC-0705-A
1" – 1/2"	REC-1005	0.7	REC-1005-A
1" – 3/4"	REC-1007	0.5	REC-1007-A
1-1/4" – 3/4"	REC-1207	1.0	REC-1207-A
1-1/4" – 1"	REC-1210	0.8	REC-1210-A
1-1/2" – 3/4"	REC-1507	1.4	REC-1507-A
1-1/2" – 1"	REC-1510	1.2	REC-1510-A
1-1/2" – 1-1/4"	REC-1512	1.3	REC-1512-A
2" – 3/4"	REC-2007	1.5	REC-2007-A
2" – 1"	REC-2010	2.3	REC-2010-A
2" – 1-1/4"	REC-2012	2.6	REC-2012-A
2" – 1-1/2"	REC-2015	2.8	REC-2015-A
2-1/2" – 1-1/2"	REC-2515	3.2	–
3" – 2"	REC-3020	3.7	REC-3020-A
3-1/2" – 2-1/2"	REC-97	4.6	–
4" – 3"	REC-4030	5.9	–
5" – 4"	REC-5040	7.4	–

SPLIT COUPLINGS

Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	SSP-50	0.2
3/4"	SSP-75	0.3
1"	SSP-100	0.4
1-1/4"	SSP-125	0.6
1-1/2"	SSP-150	0.7
2"	SSP-200	1.0
2-1/2"	SSP-250	2.3
3"	SSP-300	3.0
3-1/2"	SSP-350	3.8
4"	SSP-400	4.1
5"	SSP-500	6.0
6"	SSP-600	8.6

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



GLL Grounding Bushings

GLL style PVC coated threaded grounding bushings have an aluminum lug for copper or aluminum grounding conductors.

GROUNDING BUSHING

Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	GLL1	0.1
3/4"	GLL2	0.1
1"	GLL3	0.1
1-1/4"	GLL4	0.2
1-1/2"	GLL5	0.2
2"	GLL6	0.3
2-1/2"	GLL7	0.5
3"	GLL8	0.7
3-1/2"	GLL9	1.0

PLG Plugs

PLG style plugs are used to close unused conduit hubs. They are available with either recessed square drive sockets or raised square drive heads. **All PLG plugs are completely coated with green polyurethane for corrosion protection.**

SQUARE HEAD PLUGS

Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	PLG15	0.5
3/4"	PLG25	0.6
1"	PLG35	0.2
1-1/4"	PLG45	0.3
1-1/2"	PLG55	0.3
2"	PLG65	0.4
2-1/2"	PLG75	0.4
3"	PLG85	0.5
3-1/2"	PLG95	0.5
4"	PLG105	0.6

RECESSED PLUGS

Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	PLG1	0.2
3/4"	PLG2	0.2
1"	PLG3	0.3
1-1/4"	PLG4	0.3
1-1/2"	PLG5	0.3
2"	PLG6	0.3
2-1/2"	PLG7	0.3
3"	PLG8	0.4
3-1/2"	PLG9	0.4
4"	PLG10	0.5

RE Reducers

RE style reducers reduce conduit hubs to a smaller size. They are provided with an integral bushing to prevent conductor damage and full, clean cut threads for ease of assembly.

All RE reducers are coated inside and out with green polyurethane for corrosion protection.

REDUCING BUSHINGS

Pipe Size	FERROUS Catalog #	Nominal Weight	ALUMINUM Catalog #
3/4" - 1/2"	RE21	0.2	RE21SA
1" - 1/2"	RE31	0.7	RE31SA
1" - 3/4"	RE32	0.5	RE32SA
1-1/4" - 1/2"	RE41	0.8	RE41SA
1-1/4" - 3/4"	RE42	0.8	RE42SA
1-1/4" - 1"	RE43	0.8	RE43SA
1-1/2" - 1/2"	RE51	0.9	RE51SA
1-1/2" - 3/4"	RE52	0.9	RE52SA
1-1/2" - 1"	RE53	0.9	RE53SA
1 1/2" - 1-1/4"	RE54	0.9	RE54SA
2" - 1/2"	RE61	1.1	RE61SA
2" - 3/4"	RE62	1.1	RE62SA
2" - 1"	RE63	1.2	RE63SA
2" - 1-1/4"	RE64	1.3	RE64SA
2" - 1-1/2"	RE65	1.6	RE65SA
2-1/2" - 1"	RE73	1.6	RE73SA
2 1/2" - 1-1/4"	RE74	1.6	RE74SA
2-1/2" - 1-1/2"	RE75	1.6	RE75SA
2-1/2" - 2"	RE76	1.7	RE76SA
3" - 1"	RE83	1.7	RE83SA
3" - 1-1/4"	RE84	2.3	
3" - 1-1/2"	RE85	2.4	
3" - 2"	RE86	2.5	
3" - 2-1/2"	RE87	4.0	
3-1/2" - 2"	RE96	4.6	
3-1/2" - 2-1/2"	RE97	4.7	
3-1/2" - 3"	RE98	4.8	
4" - 2"	RE106	5.0	
4" - 2-1/2"	RE107	5.2	
4" - 3"	RE108	6.0	
4" - 3-1/2"	RE109	6.1	
5" - 4"	RE01210	7.4	
6" - 5"	RE01412	8.0	

SUBMITTAL APPROVED BY:

(See online product submittal guide at www.permacote.com)



Support Products

PERMA-COTE PVC coated pipe straps are used to securely mount conduit to a wall or other structure for support. They are available in two styles: a one-hole malleable iron strap or a two-hole stamped steel strap. Mounting hardware not provided.

PERMA-COTE PVC coated clamp back spacers are used with malleable or stamped pipe straps to provide a mounting stand-off for a conduit from a wall or other structure.

FEATURES

- 20 mil gray PVC exterior coating
- 10 trade sizes from 1/2" through 4".



CONDUIT PIPE STRAP 1 HOLE SETS

Pipe Size	FERROUS Catalog #	Nominal Wt. For 100
1/2"	14-50G	11
3/4"	14-75G	14
1"	14-100G	12
1-1/4"	14-125G	25
1-1/2"	14-150G	36
2"	14-200G	71
2-1/2"	14-250G	111
3"	14-300G	134
3-1/2"	14-350G	166
4"	14-400G	256



CONDUIT PIPE STRAP 2 HOLE

Pipe Size	FERROUS Catalog #	Nominal Wt. For 100
1/2"	HS-901	2.0
3/4"	HS-902	3.0
1"	HS-903	4.0
1-1/4"	HS-904	4.5
1-1/2"	HS-905	5.0
2"	HS-906	10.0
2-1/2"	HS-907	13.0
3"	HS-908	17.0
3-1/2"	HS-909	20.0
4"	HS-910	25.0



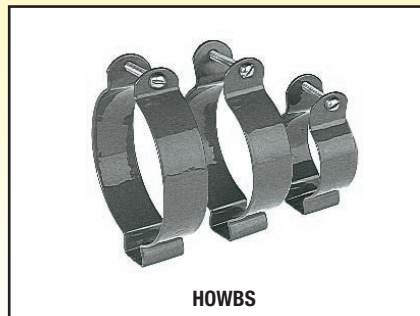
CONDUIT CLAMP BACK SPACER

Pipe Size	FERROUS Catalog #	Nominal Wt. Each
1/2"	141-G	0.1
3/4"	142-G	0.1
1"	143-G	0.1
1-1/4"	144-G	0.2
1-1/2"	145-G	0.2
2"	146-G	0.3
2-1/2"	147-G	1.0
3"	148-G	1.7
3-1/2"	149-G	2.0
4"	150-G	-

PERMA-COTE PVC coated conduit clamp hangers are used with threaded rod to securely suspend conduit runs supported from above. They are provided with stainless steel hardware.

FEATURES

- 20 mil gray PVC exterior coating
- 10 trade sizes from 1/2" through 4".



CONDUIT HANGER

Pipe Size	Catalog #	Nominal Weight
1/2"	H0WBS	0.1
3/4"	H1WBS	0.1
1"	H2WBS	0.1
1-1/4"	H3WBS	0.1
1-1/2"	H4WBS	0.2
2"	H5WBS	0.3
2-1/2"	H6WBS	0.4
3"	H7WBS	0.5
3-1/2"	H8WBS	0.6
4"	H9WBS	0.7

PERMA-COTE PVC coated all thread rod is used with coated conduit hangers and coated strut to securely suspend conduit runs supported from above. It is provided in 3/8" and 1/2" sizes and three standard lengths, 3', 6' and 10'.

FEATURES

- 20 mil gray PVC exterior coating
- 2 trade sizes and 3 standard lengths



THREAD RODS

Size	Catalog #
3/8" X 3'	ATR-375X36
3/8" X 6'	ATR-375X72
3/8" X 10'	ATR-375X120
1/2" X 3'	ATR-050X36
1/2" X 6'	ATR-050X72
1/2" X 10'	ATR-050X120

PERMA-COTE PVC coated pipe straps are used with coated strut to support conduit installations in a variety of configurations. B2008 style straps may be used in either vertical or horizontal positions to support conduit. Straps provided with stainless steel hardware. Conduit spacing may be as close together as allowed by the couplings. B3690 style straps may be used with hanger rods or other means of support to securely fasten conduit runs.

FEATURES

- 20 mil gray PVC exterior coating
- Available in 11 trade sizes.

PVC COATED PIPE STRAPS

Size	FERROUS Catalog #	Gauge Metal	Weight For 100 pcs	Standard Pack
1/2"	B3690-1/2		18	25
3/4"	B3690-3/4		21	25
1"	B3690-1		22	25
1-1/4"	B3690-1-1/4		25	25
1-1/2"	B3690-1-1/2		27	25
2"	B3690-2		29	25
2-1/2"	B3690-2-1/2		64	25
3"	B3690-3		72	25
3-1/2"	B3690-3-1/2		84	25
4"	B3690-4		138	10
5"	B3690-5		162	10

PVC COATED PIPE STRAPS

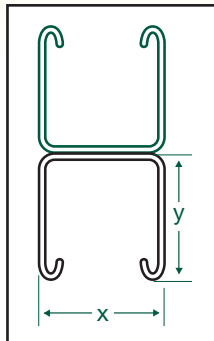
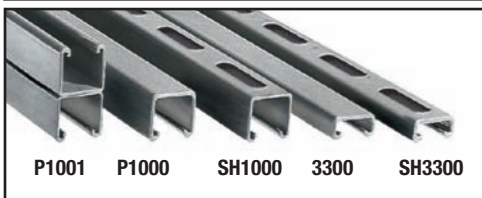
Size	FERROUS Catalog #	Gauge Metal	Weight For 100 pcs	Standard Pack
1/2"	B2008	14	13.0	100
3/4"	B2009	14	15.0	100
1"	B2010	14	17.0	100
1-1/4"	B2011	12	19.5	100
1-1/2"	B2012	12	28.0	100
2"	B2013	12	31.0	50
2-1/2"	B2014	12	36.0	50
3"	B2015	12	42.0	50
3-1/2"	B2016	11	56.0	25
4"	B2017	11	64.0	25
5"	B2019	10	76.0	25



PERMA-COTE PVC coated strut is a versatile system of structural elements that can be used to build supports for a variety of applications. When combined with coated conduit hangers and other accessories, coated strut is a versatile and economical way to provide reliable support for conduit runs and other electrical and mechanical installations.

FEATURES

- 20 mil gray PVC exterior coating
- 2 trade sizes and 3 standard styles



PVC COATED STRUT

Style	FERROUS Catalog #	Nominal Wt. Per 100 ft.	X	Y	Strut Thickness
Channel	P1000-10	200.0	1.67	1.67	12 ga.
Channel Slotted	SH1000-10	185.0	1.67	1.67	12 ga.
Channel Back to Back	P1001-10	380.0	1.67	3.29	12 ga.
Channel Shallow	P3300-10	135.0	1.67	0.92	12 ga.
Channel Slotted	SH3300-10	130.0	1.67	0.92	12 ga.

PVC COATED STRUT CUT-TO-LENGTH

FERROUS Catalog #	Description	X	Y	Length In Ft.	Strut Thickness
P1000-1	1-5/8 CHANNEL	1.67	1.67	1	12 ga.
P1000-1-1/2	1-5/8 CHANNEL	1.67	1.67	1-1/2	12 ga.
P1000-2	1-5/8 CHANNEL	1.67	1.67	2	12 ga.
P1000-2-1/2	1-5/8 CHANNEL	1.67	1.67	2-1/2	12 ga.
P1000-3	1-5/8 CHANNEL	1.67	1.67	3	12 ga.

CHANNELS WITH SLOTTED HOLES

SH1000-1	1-5/8 CHANNEL	1.67	0.92	1	12 ga.
SH1000-1-1/2	1-5/8 CHANNEL	1.67	0.92	1-1/2	12 ga.
SH1000-2	1-5/8 CHANNEL	1.67	0.92	2	12 ga.
SH1000-2-1/2	1-5/8 CHANNEL	1.67	0.92	2-1/2	12 ga.
SH1000-3	1-5/8 CHANNEL	1.67	0.92	3	12 ga.

PERMA-COTE PVC coated strut nuts are used to assemble strut components and to secure coated all thread rod in a section of strut. These are available with or without a spring to aid in placement and assembly.

FEATURES

- 20 mil gray PVC exterior coating
- 10 trade sizes from 1/2" through 4".



COATED STRUT NUT

Pipe Size	FERROUS Catalog #
3/8"	N228-WO
1/2"	N225-WO
3/8"	N228
1/2"	N225
3/8"	N2500-375
1/2"	N2500-050



Support Products

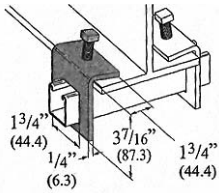
PERMA-COTE PVC coated beam clamps are used to securely support conduit runs by attaching them to beams, angles, trusses and other structural members. They are available in four different styles:

Right Angle – to attach the conduit run at a 90° angle to a beam or structural member.

Parallel – to attach the conduit run parallel to a beam or structural member.

Edge – to attach the conduit run at a 90° angle to a thin beam or structural member.

Hanger Rod Beam Clamp – to attach a single all thread rod to a beam or structural member.



STRUT WINDOW BEAM CLAMPS

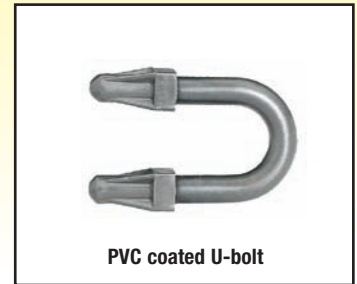
FERROUS Catalog #	Nominal Weight
B441-22	0.9
B441-22A	0.9

FEATURES

- 40 mil gray PVC exterior coating on right angle clamps.
- 20 mil gray PVC exterior coating on parallel and edge clamps.
- Right angle clamps supplied with plastic encapsulated screws.
- All clamps specifically sized to fit PVC coated conduit.
- Right angle and parallel clamps available in 10 trade sizes 1/2" through 4".
- Edge clamps available in 3 trade sizes 1/2" through 1".
- Hanger rod beam clamps available with 5 different jaw openings 15/16" through 2 1/8"

COATED NUTS

FERROUS CATALOG #	Description
NUT KIT 1	5/16 ENC NUTS-RA,UBLT 1/2 -1 1/4
NUT KIT 2	3/8 ENC NUTS - RA,UBLT 1 1/2-6



PARALLEL CONDUIT CLAMP

Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	UPC-50	46.8
3/4"	UPC-75	63.0
1"	UPC-100	67.0
1-1/4"	UPC-125	100.0
1-1/2"	UPC-150	130.0
2"	UPC-200	158.0
2-1/2"	UPC-250	175.0
3"	UPC-300	200.0
3-1/2"	UPC-350	250.0
4"	UPC-400	275.0

EDGE STYLE CONDUIT CLAMP

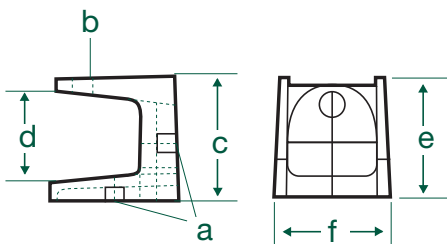
Pipe Size	FERROUS Catalog #	Nominal Weight
1/2"	UEC-50	74.0
3/4"	UEC-75	90.0
1"	UEC-100	100.0

RIGHT ANGLE CONDUIT CLAMP

Pipe Size	w/PVC U-Bolt Cat #	w/SS U-Bolt Cat #	Nominal Weight
1/2"	RA-50	UBC-50	49.0
3/4"	RA-75	UBC-75	53.0
1"	RA-100	UBC-100	61.0
1-1/4"	RA-125	UBC-125	65.0
1-1/2"	RA-150	UBC-150	92.0
2"	RA-200	UBC-200	100.0
2-1/2"	RA-250	UBC-250	125.0
3"	RA-300	UBC-300	150.0
3-1/2"	RA-350	UBC-350	175.0
4"	RA-400	UBC-400	198.0

CONDUIT U-BOLT

Pipe Size	Stainless Steel Cat #	PVC Coated Cat #	Nominal Weight
1/2"	U-050	U-050-PVC	49.0
3/4"	U-075	U-075-PVC	53.0
1"	U-100	U-100-PVC	61.0
1-1/4"	U-125	U-125-PVC	65.0
1-1/2"	U-150	U-150-PVC	92.0
2"	U-200	U-200-PVC	100.0
2-1/2"	U-250	U-250-PVC	125.0
3"	U-300	U-300-PVC	150.0
3-1/2"	U-350	U-350-PVC	175.0
4"	U-400	U-400-PVC	198.0
5"	U-500	U-500-PVC	100.0
6"	U-600	U-600-PVC	130.0



BEAM CLAMPS

Pipe Size	FERROUS Catalog #	A	B	C	D	E	F	Nominal Weight	Maximum Load
1"	IS-500	1/4-20	5/16-1-1/8	1-5/8	7/8	1-1/2	1-1/4	25	500
1-1/4"	IS-501	5/16-1-1/8	3/8-16	1-3/4	1	1-5/8	1-5/8	50	800
1-1/2"	IS-502	3/8-16	1/2-13	2-1/8	1-1/4	2-1/16	2-1/16	90	2000
2"	IS-503	1/2-13	1/2-13	2-5/8	1-1/2	2-1/4	2-1/2	195	2000
2-1/2"	IS-508	1/2-13	1/2-13	3-3/8	2-1/4	2-1/2	2-5/8	25	4000

SPIN-IT



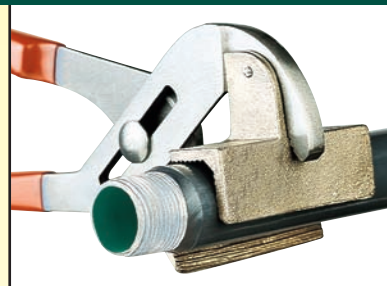
With the **SPIN-IT**, Perma-Cote can be tightened much faster than with conventional tools. Because **SPIN-IT** never touches the coating, damage to the conduit is eliminated. **SPIN-IT** is available in popular sizes for 3/4" through 2" drive conduit. Use 1/2" drive impact wrench or a standard ratchet wrench for 3/4" and 1" conduit, use 3/4" drive for sizes 1-1/4" through 2".

PLASTI-SOCKET



PLASTI-SOCKET is a fiber-glass encapsulated 3/8" drive socket for use with the square fiberglass encapsulated U bolt and beam clamp nuts used in the Perma-Cote conduit support system. They fit a standard 3/8" drive ratchet and speed up installation while avoiding coating damage from metal sockets, pliers or wrenches.

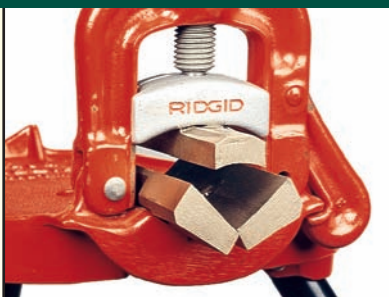
Z-WRENCH



Z-WRENCH features extra wide jaws which spread the clamping force, enabling the tool to grip without marring the surface of the conduit. The "V" shaped upper jaw allows **Z-WRENCH** to accommodate a wide range of conduit sizes. Shallow grooves in the upper and lower jaws provide an excellent grip.

JPZ 1 - 1/2"-1-1/4"
JPZ 2 - 1-1/2"-2-1/2"

JAWS 3



JAWS 3 are a set of aluminum-nickel-bronze vise jaws designed to replace the regular jaws in a RIGID #23 or #40-A pipe vise. **JAWS 3** are designed for use with Perma-Cote Coated Conduit. They completely protect the exterior coating from damage caused by the vise jaws when cutting or threading. One set of **JAWS 3** handles Perma-Cote Coated Conduit sizes from 1/2" through 1-1/2". Model #23 fits the RIGID #23 pipe vise. Model #40-A fits the RIGID #40-A tripod pipe vise.

HALF SHELL CLAMPS



HALF SHELL CLAMPS are designed to cover a large surface area when clamping conduit, especially in a chain vise. This allows for a strong grip without damaging the exterior coating. **HALF SHELL CLAMPS** are available for clamping 2" through 6" conduit.

HICKEY



The **PERMA-COTE Hickey** is a special bending tool with a 40 mil PVC coating which reduces the possibility of damage during conduit bending. 1/2" - 3/4" only.

Installation Tools catalog numbers on the next page.

PERMA-COTE TOUCH UP COMPOUNDS

PERMA-COTE Touchup Compounds are available to repair minor damage to the interior urethane or exterior PVC factory coatings. The exterior PVC touchup compound is gray and available in a 12 oz. aerosol can, and a pint can with brush-top applicator. The interior green urethane touchup compound is available in a pint can. See the installation section of this catalog for more information on using the **PERMA-COTE** touchup compounds.

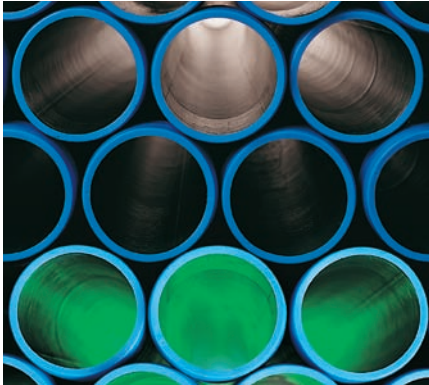


PERMA-COTE TOUCH-UP COMPOUNDS

Catalog Number	DESCRIPTION	Size
TC-1700	Exterior Spray Type (Gray)	12 oz.
TC-1600	Exterior Non-Spray with Brush-Top (Gray)	1 pt.
Thread-Compound	Approved Conductive Compound-Brush-Top Pint	1 pt.



Installation Guide



Proper installation is essential to insure the highest possible performance and provide maximum life for a conduit system.

Perma-Cote is totally encapsulated, providing the best available exterior and interior protection against corrosion.

- A 40 mil PVC exterior coating is permanently fused to rigid metal conduit.
- A tough, flexible urethane coating is applied to the interior of the conduit by an exclusive process.
- Using a unique, proprietary system, threads are protected from corrosion by hot galvanizing after PVC coating of the conduit and before application of a clear polyurethane topcoat.

Proper installation is essential to ensure the highest possible performance and provide maximum life for a conduit system. You're probably an expert at installing non-coated rigid metal conduit. We'd like to give you a few tips to assure the best possible PVC coated conduit installation. With the exceptions of a few precautions necessary to protect the coatings, coated rigid metal conduit installation procedures are the same as those for installing non-coated rigid conduit.

Installing Perma-Cote involves five basic steps:

- 1. Clamping**
- 2. Cutting**
- 3. Threading**
- 4. Bending**
- 5. Assembly**

INSTALLATION TOOLS

Catalog #	Description	Catalog #	Description
SPSPIN-IT-3/4	3/4 SPIN-IT	JWJAWS3-#23	JAWS3 #23 PIPE VISE
SPSPIN-IT-1	1 SPIN-IT	JWJAWS3-#40-A	JAWS3 #40-A TRIPOD PIPE VISE
SPSPIN-IT-1-1/4	1-1/4 SPIN-IT		
SPSPIN-IT-1-1/2	1-1/2 SPIN-IT	JWHLF-SHL-CLP2	2 HALF-SHELL CONDUIT CLAMP
SPSPIN-IT-2	2 SPIN-IT	JWHLF-SHL-CLP2-1/2	2-1/2 HALF-SHELL CONDUIT CLAMP
		JWHLF-SHL-CLP3	3 HALF-SHELL CONDUIT CLAMP
PBHICKEY	1/2" & 3/4" CONDUIT BENDER	JWHLF-SHL-CLP3-1/2	3-1/2 HALF-SHELL CONDUIT CLAMP
		JWHLF-SHL-CLP4	4 HALF-SHELL CONDUIT CLAMP
PSPLASTISOCKET-3/8	3/8 PLASTISOCKET	JWHLF-SHL-CLP5	5 HALF-SHELL CONDUIT CLAMP
		JWHLF-SHL-CLP6	6 HALF-SHELL CONDUIT CLAMP
SPJPZ1	1/2 - 1-1/4 Z-WRENCH		
SPJPZ2	1-1/2 - 2-1/2 Z-WRENCH		

CLAMPING

A number of practical ways are recommended for clamping Perma-Cote.

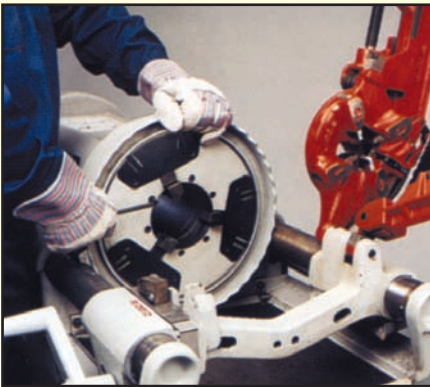
If a power drive unit that spins the conduit is used, the chuck should be equipped with inserts designed specifically for PVC coated conduit. These inserts are available through a local threading equipment distributor.

When using a pipe vise it is recommended that the jaw assembly be replaced with Perma-Cote Jaws 3 vise adapters.

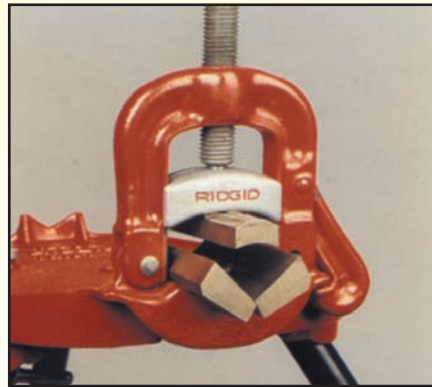
These adapters spread the clamping force over a larger area, which helps prevent spinning of the pipe during cutting and threading operations.

If Jaws 3 adapters are not used, wrap the area of the conduit to be clamped with emery cloth coarse side down. This will increase the friction created by the vise jaws and help prevent spinning of the pipe, thereby reducing potential damage to the coating.

We have developed half shell clamps to protect a large surface area when conduit is clamped in a chain vise. The aluminum nickel bronze clamps allow for a strong grip without damaging the exterior coating of the coated conduit. 1/2 shell clamps are available in sizes 2 through 6 inches.



On a power drive unit inserts should be used that are designed for PVC coated conduit.



When using a pipe vise it is recommended that the jaw assembly be replaced with Jaws 3 vise adapters.

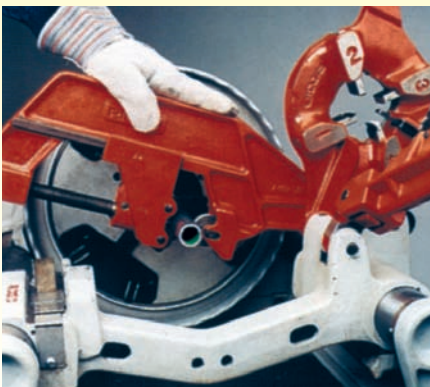


When a chain vise is used special care must be taken to prevent damage to the exterior coating.

CUTTING

We recommend using a roller cutter to cut coated conduit. In addition to producing a square cut end, the roller cutter will remove approximately 1/4" of the PVC coating, aiding in conduit threading. Conventional manual or power saws may

also be used to cut conduit. Use a reamer to remove any rough edges from the conduit interior caused by the cutting operation. This ensures that the wire pulled through the conduit will not be damaged.



We recommend that Perma-Cote conduit be cut with a roller cutter.



The PVC coating may need to be pencil cut in order that the die teeth may engage the conduit.



Use a reamer to remove rough edges.



THREADING

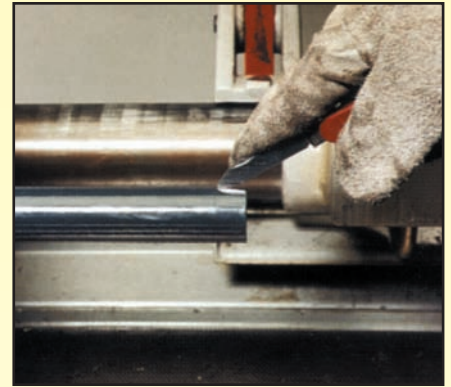
PERMA-COTE can be threaded with any standard threading tool. Larger model power threaders with open die heads require no modification beyond optional grip inserts for PVC coated conduit.

If a threader with a tight-fitting die head is to be used, like many hand-held models, it is necessary to machine out the interior diameter of the stationary guide approximately 12/100ths of an inch to allow for clearance of the PVC coating. Prior to machining the pipe guide take note of the sequence in which the dies are removed; then replace dies in the proper sequence.

If conduit is to be threaded manually it must be pencil cut before threading to enable the die teeth on the threader to engage the conduit. In the same manner as sharpening a pencil with a knife, cut away 1/4" of the exterior coating from the end to be threaded. This allows the pipe guide to ride up and over the PVC coating enabling the removal of the coating and threading in one operation.

Before threading, by any method, a series of cuts should be made in the PVC coating along the longitudinal axis of the conduit. The thread protector attached to one end of the conduit can be used to gauge the length of the cuts. Make a slit up one side of the thread protector with a knife and remove it from the conduit. Push the thread protector over the cut end of the conduit to be threaded and place a mark on the PVC coating at the end of the protector. With a knife, cut around the circumference of the conduit at the mark, through the PVC coating, to the metal. This cut will indicate the starting point for the longitudinal cuts and it will give an even ending to the PVC coating removed during threading. The longitudinal cuts will allow the PVC coating to be removed in small pieces instead of long strips that can foul the die head causing the conduit to collapse.

Use a good quality thread cutting oil to flush away the metal and PVC chips. After threading use a degreasing spray to thoroughly clean the threads and the interior of the pipe. Use care not to contaminate the cutting oil with the degreasing spray. Degreasing is important in order to insure that the thread compound will adhere to the unprotected steel. Bare steel is the most vulnerable area to corrosion in any conduit system, therefore, thread compound must be used on all field cut threads and internal reams. These specially formulated interior and thread touch-up compounds are available in 1 pint cans. When an access fitting or coupling is attached to the newly threaded conduit a copper colored band will form at the end of the sleeve. This indicates proper installation procedures have been followed.

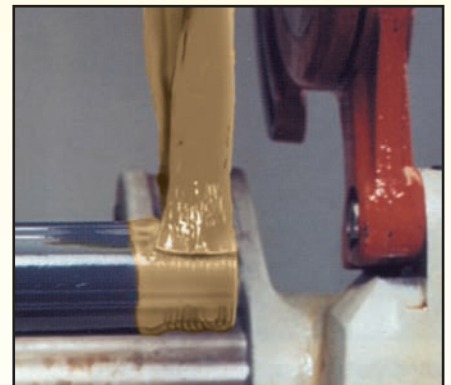


A series of cuts should be made along the longitudinal axis of the conduit.

- For safety, always use a fixed or locking-blade knife.



After threading, use a degreasing spray to thoroughly clean the threads and interior of the pipe.



Perma-Cote copper colored thread compound must be used on all field cut threads and internal reams.

- Please note: when threading Perma-Cote green Aluminum conduit, always use new die heads, never use the same die head to thread PVC coated aluminum conduit and coated steel conduit.

BENDING

We offer a complete line of standard, special and large radius elbows, ready for quick shipment. When field bending is necessary, there are a variety of bending tools from which to choose. Perma-Cote can be bent with conventional types of bending equipment.

To accommodate the PVC coating when using a hand bender: always select the next larger size shoe.

Use a Perma-Cote Hickey to reduce the possibility of damage to the conduit coating when making sharp bends, saddles or offsets.

For optimum results use equipment specially designed for bending PVC coated conduit. When bending Perma-Cote with powered equipment, use rubbing alcohol to clean the inside of the shoe and the area of the conduit to be bent.

Never use a lubricant on the shoe or conduit. Lubricants tend to allow the conduit to slip above the center-line of the shoe, resulting in flattening of the elbow.

Major manufacturers of bending equipment offer bending shoes for coated conduit that can be ordered for existing equipment. Acceptable results can be obtained by machining out existing shoes. Use shoes the same size as the conduit to be bent and remove approximately 6/100ths of an inch from the inside of the shoe.



To accommodate the PVC coating when using a hand bender, always use the next larger size shoe. Use a PERMA-COTE coated Hickey to reduce the possibility of damage to the conduit coating.

QUICK TIPS



PERMA-COTE....PROVIDING YOU THE EXTRAS YOU NEED FOR A SUCCESSFUL CONDUIT SYSTEM.

To ensure faster installation and lower labor costs we will provide quick shipment of a comprehensive line of factory nipples and elbows, standard and special radius. Also, to provide proper fit and ease of installation, all PERMA-COTE PVC coated pipe straps, clamps and clamp back spacers are specially designed to fit our PVC coated conduit. To allow quick identification of conduit sizes, all thread protectors are color coded by size.

CUSTOMIZED COATING

Because of our expertise in anti-corrosion coating technologies, we offer capabilities for custom coating electrical products. For additional information please contact your PERMA-COTE sales rep or contact our manufacturing facility at: 903-843-4388.



ASSEMBLY

Our engineers, working in conjunction with prominent manufacturers, have developed special tools to aid in installation of Perma-Cote. Perma-Cote touch up compound is used to repair nicks, cuts, and abrasions to the outer surface of coated conduit. Apply the exterior touch up compound liberally over damaged areas. Because this material will not adhere to bare metal, it is advisable to overlap existing PVC coating. Sometimes it may be necessary to apply several coats in order to obtain adequate coverage. Allow the first coat to dry completely before applying additional coats.

Another application for exterior touch up compound is for use as a sealant at access fitting openings. In wet locations apply the compound to the factory conduit threads at each joint before installation.

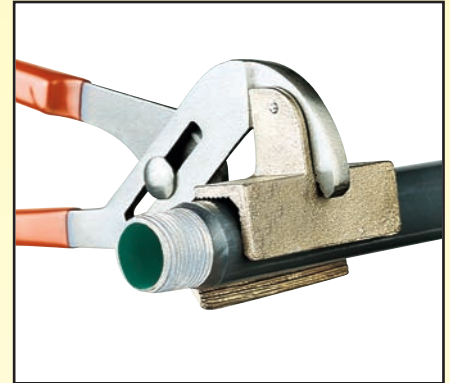
Exterior touch up compound is available in pints with a brush top applicator. It is also available in a 13 ounce aerosol can when cosmetic coverage is desired.

Perma-Cote Z Wrenches are designed to replace standard adjustable pliers. Z wrenches feature extra wide jaws which spread the clamping force enabling the tools to grip securely without marring the surface of the conduit.

The v-shaped upper jaw allows the wrench to accommodate a wide range of conduit sizes. Shallow grooves in the upper and lower jaws provide an excellent grip. Z Wrenches are available in two sizes to fit 1/2" through 2 1/2" conduit.

With a Perma-Cote Spin-It, conduit can be tightened much faster than with a conventional tool and the Spin-It never touches the coating. Labor and time are saved because no touch up is necessary for marks from wrenches or pliers. Spin-its are available in popular conduit sizes 3/4 through 2 inches. Use a 1/2" drive impact or ratchet wrench for 3/4" and 1" conduit and a 3/4" drive impact or ratchet wrench for sizes 1-1/4" through 2".

We have designed a special PVC Hickey to reduce the possibility of damage during conduit bending. It is available to handle 1/2" and 3/4" conduit.



Z Wrenches have extra wide jaws which spread the clamping force.



Spin-It can tighten conduit much faster than conventional tools.

ASSEMBLY

Jaws 3 is a set of three aluminum nickel bronze vise jaws designed to replace the regular jaws in a pipe vise. Jaws 3 protects coated conduit from damage during cutting and threading. These replacement jaws spread the cutting force over a much larger area greatly reducing the possibility of the pipe spinning in the vise during cutting and threading operations. One set of Jaws 3 handles 1/2 through 2-1/2" conduit.

When ordering Jaws 3 be sure to specify the vise model you are using.

Use the Perma-Cote Plasti-Socket and standard 3/8" ratchet to speed up u-bolt and beam clamp installation. The Plasti-Socket prevents abrasion and cracking of encapsulated nuts, which may be caused by pliers or wrenches, and it assures a tight seal between the nut and the saddle. The 3/8" Plasti-Sockets fits nuts for 1/2" through 2" clamps. The 5/8" Plasti-Sockets fits nuts for 2-1/2" and larger sizes. Both Plasti-Sockets fit a standard 3/8" drive ratchet wrench.

Here are some tips to remember when using conventional tools to install Perma-Cote.

When a pipe wrench or adjustable pliers must be used, new tools with sharp teeth work best. New tools are less likely to slip and gouge the coating. The same holds true for pipe vises. New, sharp inserts should be installed if the existing ones show signs of wear. Strap wrenches are available from a number of sources and do an adequate job of tightening conduit and couplings without damaging the coatings. Several suppliers offer straps that have been specifically woven and treated to provide an extra strong grip on coated conduit.

Our coated conduit and fittings feature a green interior urethane coating. This hard smooth coating allows for easier wire pulling and will not crack or chip. The interior coating needs no heat or special considerations when field bending.



Jaws 3 was designed to protect Perma-Cote conduit from damage by vise jaws during conduit bending.



Prevent damage to encapsulated nuts by using the PERMA-COTE Plasti-Socket.



We developed Half Shell Clamps to protect a large surface area when conduit is clamped



ASSEMBLY

Matching couplings are offered as a standard part of the system. The molded ribs protect the coating from cuts and abrasions caused by the teeth of wrenches and pliers. Since damage is minimized and the bare metal is never exposed, touch up operations are eliminated. Ribbed couplings are also easier to install. They can be tightened easily by hand and strap wrenches grip the ribs better.

Pressure sealing sleeves are present at all female openings. Here's an important tip to remember. Never cut the sleeves from Perma-Cote fittings. These sleeves are necessary at all joints to seal out corrosion. However in some joints it is necessary to remove a portion of the sleeve. An example of this is the junction of a conduit, close nipple, and a union where both pressure sealing sleeves will not fit over the close nipple. In this case: cut away 1/2 of each sleeve and apply touch up compound to the threads.

Encapsulated nuts for U-bolts and specially formed saddles on right angle beam clamps are other unique features offered as part of the Perma-Cote system. U-bolts are made to fit snugly on conduit, and each nut is encapsulated in plastic. A sleeve covers the U-bolt threads, sealing out corrosive elements.

Encapsulated screws are provided with all Form 8 conduit bodies. They prevent corrosive elements from attacking the stainless steel fastener used to attach the cover to the body, and help to seal out corrosive liquids from the screw opening. A nut driver or socket is recommended for installing the encapsulated screws.

- Buy Perma-Cote PVC coated conduit and fittings.
- Install them with the proper tools and follow proven procedures.
- Expect a superior, long lasting corrosion resistant system that pays for itself with lower maintenance costs and reduced down time.

Perma-Cote... you can install it and forget it.



Ribbed couplings are offered as a standard part of the Perma-Cote conduit system.



Encapsulated screws are provided on all form 8 condulets.



URETHANE INTERIOR COATING CHEMICAL RESISTANCE CHART

SOLUTIONS	CONC.	TEMP.	RECOMMENDED EXPOSURE		
			FUMES	SPLASH	IMMERSION
Acetic Acid	10%	75° F	YES	YES	NO
Acid Copper Plating Sol.	Any	75° F	YES	YES	NO
Alkaline Cleaners	Any	75° F	YES	YES	NO
Aluminum Chloride	Sat'd	75° F	YES	YES	NO
Aluminum Sulfate	Sat'd	75° F	YES	YES	NO
Alums	Sat'd	75° F	YES	YES	NO
Ammonium Chloride	Sat'd	75° F	YES	YES	NO
Ammonium Hydroxide	28%	75° F	YES	YES	NO
Ammonium Hydroxide	10%	75° F	YES	YES	NO
Ammonium Sulfate	Sat'd	75° F	YES	YES	NO
Ammonium Thiocyanate	Sat'd	75° F	YES	YES	NO
Amyl Alcohol	Sat'd	75° F	YES	YES	YES
Arsenic Acids	Any	75° F	YES	YES	NO
Barium Sulfide	Sat'd	75° F	YES	YES	NO
Black Liquor	Sat'd	75° F	YES	YES	NO
Benzoic Acid	Sat'd	75° F	YES	YES	NO
Brass Plating Solution	Sat'd	75° F	YES	YES	NO
Bromine Water	Sat'd	75° F	YES	YES	NO
Butyl Alcohol	Any	75° F	YES	YES	NO
Cadmium Plating Sol.	Any	75° F	YES	YES	NO
Cadmium Bisulfate	Any	75° F	YES	YES	NO
Calcium Chloride	Sat'd	75° F	YES	YES	NO
Calcium Hypochlorite	Sat'd	75° F	YES	YES	NO
Carbonic Acid	Sat'd	75° F	YES	YES	NO
Casein	Any	75° F	YES	YES	NO
Castor Oil	Any	75° F	YES	YES	YES
Caustic Soda	35%	75° F	YES	YES	NO
Caustic Soda	10%	75° F	YES	YES	NO
Caustic Potash	35%	75° F	YES	YES	NO
Caustic Potash	10%	75° F	YES	YES	NO
Chlorine Water	Sat'd	75° F	YES	YES	NO
Chromium Plating Sol.	Any	75° F	YES	YES	NO
Citric Acid	Sat'd	75° F	YES	YES	NO
Copper Chloride	Sat'd	75° F	YES	YES	NO
Copper Cyanide Plating Sol.	Any	75° F	YES	YES	NO
Copper Sulfate	Sat'd	75° F	YES	YES	NO
Coconut Oil	Sat'd	75° F	YES	YES	YES
Cottonseed Oil	Sat'd	75° F	YES	YES	YES
Disodium Phosphate	Sat'd	75° F	YES	YES	NO
Ethyl Alcohol	Any	75° F	YES	YES	NO
Ethylene Glycol	Any	75° F	YES	YES	YES
Ferrous Sulfate	Sat'd	75° F	YES	YES	NO
Fluoboric Acid	Any	75° F	YES	YES	NO
Formaldehyde	37%	75° F	YES	YES	NO
Formic Acid	85%	75° F	YES	YES	NO
Galllic Acid	Sat'd	75° F	YES	YES	NO
Glucose	Any	75° F	YES	YES	YES
Glycerine	Any	75° F	YES	YES	YES
Gold Plating Solution	Any	75° F	YES	YES	NO
Hydrochloric Acid	10%	75° F	YES	YES	NO
Hydrochloric Acid	21.5%	75° F	YES	YES	NO
Hydrochloric Acid	37.5%	75° F	YES	YES	NO
Hydrofluoric Acid	4%	75° F	YES	YES	NO
Hydrofluoric Acid	10%	75° F	YES	YES	NO
Hydrofluoric Acid	48%	75° F	YES	YES	NO
Hydrogen Peroxide	30%	75° F	YES	YES	NO
Hydroquinone	Any	75° F	YES	YES	NO
Indium Plating Solution	Any	75° F	YES	YES	NO
Lactic Acid	Any	75° F	YES	YES	NO
Lead Plating Solution	Any	75° F	YES	YES	NO

SOLUTIONS	CONC.	TEMP.	RECOMMENDED EXPOSURE		
			FUMES	SPLASH	IMMERSION
Malic Acid	Any	75° F	YES	YES	NO
Methyl Alcohol	Any	75° F	YES	YES	NO
Mineral Oils	Any	75° F	YES	YES	YES
Nickel Acetate	Sat'd	75° F	YES	YES	NO
Nickel Plating Solution	Any	75° F	YES	YES	NO
Nickel Salts	Sat'd	75° F	YES	YES	NO
Nitric Acid	35%	75° F	YES	YES	NO
Nitric Acid	40%	75° F	YES	YES	NO
Nitric Acid	60%	75° F	YES	YES	NO
Nitric/Hydrofluoric Acid	15%/4%	75° F	YES	YES	NO
Nitric Acid/Sodium Dichromate					
Water	16%/13%/71%	75° F	YES	YES	NO
Oleic Acid	Any	75° F	YES	YES	NO
Oxalic Acid	Any	75° F	YES	YES	NO
Phenol	Sat'd	75° F	YES	YES	NO
Phosphoric Acid	75%	75° F	YES	YES	NO
Phosphoric Acid	85%	75° F	YES	YES	NO
Potassium Acid Sulfate	Sat'd	75° F	YES	YES	NO
Potassium Antimonate	Sat'd	75° F	YES	YES	NO
Potassium Bisulfite	Sat'd	75° F	YES	YES	NO
Potassium Chloride	Sat'd	75° F	YES	YES	NO
Potassium Cuprocyanide	Sat'd	75° F	YES	YES	NO
Potassium Cyanide	Sat'd	75° F	YES	YES	NO
Potassium Dichromate	Sat'd	75° F	YES	YES	NO
Potassium Hypochlorate	Sat'd	75° F	YES	YES	NO
Potassium Sulfide	Sat'd	75° F	YES	YES	NO
Potassium Thiosulfate	Sat'd	75° F	YES	YES	NO
Propyl Alcohol	Sat'd	75° F	YES	YES	NO
Rhodium Plating Solution	Sat'd	75° F	YES	YES	NO
Silver Plating Solution	Sat'd	75° F	YES	YES	NO
Soaps	Any	75° F	YES	YES	NO
Sodium Acid Sulfate	Sat'd	75° F	YES	YES	NO
Sodium Antimonate	Sat'd	75° F	YES	YES	NO
Sodium Bicarbonate	Sat'd	75° F	YES	YES	NO
Sodium Bisulfite	Sat'd	75° F	YES	YES	NO
Sodium Chloride	Sat'd	75° F	YES	YES	NO
Sodium Cyanide	Sat'd	75° F	YES	YES	NO
Sodium Dichromate	Sat'd	75° F	YES	YES	NO
Sodium Hydroxide	10%	75° F	YES	YES	NO
Sodium Hydroxide	35%	75° F	YES	YES	NO
Sodium Hydroxide	73%	75° F	YES	YES	NO
Sodium Hypochlorite	Sat'd	75° F	YES	YES	NO
Sodium Hypochlorite	15%	75° F	YES	YES	NO
Sodium Sulfide	Sat'd	75° F	YES	YES	NO
Sodium Thiosulfate	Sat'd	75° F	YES	YES	NO
Sulfuric Acid	15%	75° F	YES	YES	NO
Sulfuric Acid	50%	75° F	YES	YES	NO
Sulfuric Acid	70%	75° F	YES	YES	NO
Sulfuric Acid	98%	75° F	YES	YES	NO
Sulfurous Acid	2%	75° F	YES	YES	NO
Sulfurous Acid	4%	75° F	YES	YES	NO
Tannic Acid	Sat'd	75° F	YES	YES	NO
Tartaric Acid	Sat'd	75° F	YES	YES	NO
Tin Chloride	Sat'd	75° F	YES	YES	NO
Tin Plating Solution	Sat'd	75° F	YES	YES	NO
Triethanolamine	Sat'd	75° F	YES	YES	NO
Trisodium Phosphate	Sat'd	75° F	YES	YES	NO
White Liquor	Sat'd	75° F	YES	YES	NO
Zinc Plating Solution	Sat'd	75° F	YES	YES	NO
Zinc Sulfate	Sat'd	75° F	YES	YES	NO



PVC EXTERIOR COATING CHEMICAL RESISTANCE CHART

SOLUTIONS	CONC.	TEMP.	RECOMMENDED EXPOSURE		
			FUMES	SPLASH	IMMERSION
Acetic Acid	10%	120	NO	NO	NO
Acid Copper Plating Sol.		160	YES	YES	YES
Alkaline Cleaners		160	YES	YES	YES
Aluminum Chloride	Sat'd	160	YES	YES	YES
Aluminum Sulfate	Sat'd	160	YES	YES	YES
Alums	Sat'd	160	YES	YES	YES
Ammonium Chloride	Sat'd	160	YES	YES	YES
Ammonium Hydroxide	28%	120	YES	YES	YES
Ammonium Hydroxide	10%	120	YES	YES	YES
Ammonium Sulfate	Sat'd	160	YES	YES	YES
Ammonium Thiocyanate	Sat'd	160	YES	YES	YES
Amyl Alcohol	Any	90	YES	YES	YES
Arsenic Acids	Any	150	YES	YES	YES
Barium Sulfide	Sat'd	160	YES	YES	YES
Black Liquor	Sat'd	90	YES	YES	YES
Benzoic Acid	Sat'd	160	YES	YES	YES
Brass Plating Solution	Any	160	YES	YES	YES
Bromine Water	Sat'd	120	YES	YES	YES
Butyl Alcohol	Any	90	YES	YES	YES
Cadmium Plating Sol.	Any	150	YES	YES	YES
Cadmium Bisulfate	Any	150	YES	YES	YES
Calcium Chloride	Sat'd	160	YES	YES	YES
Calcium Hypochlorite	Sat'd	120	YES	YES	YES
Carbonic Acid	Sat'd	160	YES	YES	YES
Casein	Any	90	YES	YES	YES
Castor Oil	Any	90	YES	YES	YES
Caustic Soda	35%	120	YES	YES	YES
Caustic Soda	10%	150	YES	YES	YES
Caustic Potash	35%	120	YES	YES	YES
Caustic Potash	10%	150	YES	YES	YES
Chlorine Water	Sat'd	90	YES	YES	YES
Chromium Plating Sol.	Any	150	YES	YES	YES
Citric Acid	Sat'd	160	YES	YES	YES
Copper Chloride	Sat'd	160	YES	YES	YES
Copper Cyanide Plating Sol.	Any	160	YES	YES	YES
(High Speed)	Any	180	YES	YES	YES
(with Alkali Cyanides)	Sat'd	160	YES	YES	YES
Copper Sulfate	Sat'd	160	YES	YES	YES
Coconut Oil	Sat'd	90	YES	YES	YES
Cottonseed Oil	Sat'd	90	YES	YES	YES
Disodium Phosphate	Sat'd	160	YES	YES	YES
Ethyl Alcohol	Any	90	YES	YES	YES
Ethylene Glycol	Any	90	YES	YES	NO
Ferric Chloride	45%	120	YES	YES	YES
Ferrous Sulfate	Sat'd	150	YES	YES	YES
Fluoboric Acid	Any	150	YES	YES	YES
Formaldehyde	37%	120	YES	YES	YES
Formic Acid	85%	100	NO	NO	NO
Gallic Acid	Sat'd	150	YES	NO	NO
Glucose	Any	150	YES	YES	YES
Glycerine	Any	90	YES	YES	YES
Gold Plating Solution	Any	150	YES	YES	YES
Hydrochloric Acid	10%	120	YES	YES	YES
Hydrochloric Acid	21.5%	120	YES	YES	YES
Hydrochloric Acid	37.5%	120	YES	YES	NO
Hydrochloric Acid	37.5%	90	YES	YES	NO
Hydrofluoric Acid	4%	140	YES	YES	NO
Hydrofluoric Acid	10%	120	YES	YES	NO
Hydrofluoric Acid	48%	120	YES	YES	NO
Hydrogen Peroxide	30%	120	YES	YES	YES
Hydrogen Sulfide	Sat'd	120	YES	YES	YES
Hydroquinone	Any	90	YES	YES	YES
Indium Plating Solution	Any	150	YES	YES	YES

SOLUTIONS	CONC.	TEMP.	RECOMMENDED EXPOSURE		
			FUMES	SPLASH	IMMERSION
Lactic Acid	50%	120	YES	YES	YES
Lactic Acid	Any	90	YES	YES	YES
Lead Plating Solution	Any	150	YES	YES	YES
Malic Acid	Any	90	YES	YES	YES
Methyl Alcohol	Any	90	YES	YES	YES
Mineral Oils	Any	90	YES	YES	YES
Nickel Acetate	Sat'd	160	YES	YES	YES
Nickel Plating Solution		160	YES	YES	YES
Nickel Salts	Sat'd	160	YES	YES	YES
Nitric Acid	35%	120	YES	YES	NO
Nitric Acid	40%	90	YES	YES	NO
Nitric Acid	60%	120	YES	YES	NO
Nitric/Hydrofluoric Acid	15%/4%	140	YES	YES	YES
Nitric Acid/Sodium Dichromate					
Water	16%/13%/71%	130	YES	YES	YES
Oleic Acid	Any	90	YES	YES	YES
Oxalic Acid		90	YES	YES	YES
Phenol	Sat'd	120	NO	NO	NO
Phosphoric Acid	75%	150	YES	YES	YES
Phosphoric Acid	85%	120	YES	YES	YES
Potassium Acid Sulfate	Sat'd	150	YES	YES	YES
Potassium Antimonate	Sat'd	150	YES	YES	YES
Potassium Bisulfite	Sat'd	90	YES	YES	YES
Potassium Chloride	Sat'd	160	YES	YES	YES
Potassium Cuprocyanide	Sat'd	150	YES	YES	YES
Potassium Cyanide	Sat'd	160	YES	YES	YES
Potassium Dichromate	Sat'd	160	YES	YES	YES
Potassium Hypochlorate	Sat'd	90	YES	YES	NO
Potassium Sulfide	Sat'd	150	YES	YES	YES
Potassium Thiosulfate	Sat'd	150	YES	YES	YES
Propyl Alcohol	Sat'd	150	YES	YES	YES
Rhodium Plating Solution	Sat'd	150	YES	YES	YES
Silver Plating Solution	Sat'd	150	YES	YES	YES
Soaps	Any	90	YES	YES	YES
Sodium Acid Sulfate	Sat'd	160	YES	YES	YES
Sodium Antimonate	Sat'd	150	YES	YES	YES
Sodium Bicarbonate	Sat'd	160	YES	YES	YES
Sodium Bisulfite	Sat'd	90	YES	YES	YES
Sodium Chloride	Sat'd	160	YES	YES	YES
Sodium Cyanide	Sat'd	160	YES	YES	YES
Sodium Dichromate	Sat'd	160	YES	YES	YES
Sodium Hydroxide	10%	150	YES	YES	NO
Sodium Hydroxide	35%	120	YES	YES	NO
Sodium Hydroxide	73%	160	NO	NO	NO
Sodium Hypochlorite	Sat'd	90	YES	YES	NO
Sodium Hypochlorite	15%	120	YES	YES	NO
Sodium Sulfide	Sat'd	150	YES	YES	YES
Sodium Thiosulfate	Sat'd	150	YES	YES	YES
Sulfuric Acid	15%	120	YES	YES	YES
Sulfuric Acid	50%	120	YES	YES	YES
Sulfuric Acid	70%	90	YES	YES	NO
Sulfuric Acid	98%	100	YES	NO	NO
Sulfurous Acid	2%	120	YES	YES	NO
Sulfurous Acid	6%	120	YES	YES	NO
Tannic Acid	Sat'd	90	YES	YES	YES
Tartaric Acid	Sat'd	90	YES	YES	YES
Tin Chloride	Sat'd	150	YES	YES	YES
Tin Plating Solution	Sat'd	150	YES	YES	YES
Triethanolamine	Sat'd	150	YES	YES	YES
Trisodium Phosphate	Sat'd	150	YES	YES	YES
White Liquor	Sat'd	90	YES	YES	YES
Zinc Plating Solution		160	YES	YES	YES
Zinc Sulfate	Sat'd	160	YES	YES	YES



PERMA-COTE SPECIFICATIONS

Perma-Cote ABRIDGED SPECIFICATION

1. The PVC coated galvanized rigid conduit must be UL Listed. The PVC coating must have been investigated by UL as providing the primary corrosion protection for the rigid metal conduit. Ferrous fittings for general service locations must be UL Listed with PVC as the primary corrosion protection. Hazardous location fittings, prior to plastic coating must be UL listed. All conduit and fittings must be new, unused material. Applicable UL standards may include: UL 6 Standard for Safety, Rigid Metal Conduit, UL514B Standard for Safety, Fittings for Conduit and Outlet Boxes.
2. The PVC coated galvanized rigid conduit must be ETL Verified to the Intertek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours. The PVC coated galvanized rigid conduit must bear the ETL Verified PVC-001 label to signify compliance to the adhesion performance standard.
3. The conduit shall be hot dip galvanized inside and out with hot galvanized threads.
4. A PVC sleeve extending one pipe diameter or two inches, whichever is less, shall be formed at every female fitting opening except unions. The inside sleeve diameter shall be matched to the outside diameter of the conduit.
5. The PVC coating on the outside of conduit couplings shall have a series of longitudinal ribs 40 mils in thickness to protect the coating from tool damage during installation.
6. Form 8 Condulets, 1/2" through 2" diameters, shall have a tongue-in-groove gasket to effectively seal against the elements. The design shall be equipped with a positive placement feature to ease and assure proper installation. Certified results confirming seal performance at 15 psig (positive) and 25 in. of mercury (vacuum) for 72 hours shall be available.
7. Form 8 Condulets shall be supplied with plastic encapsulated stainless steel cover screws.
8. A green urethane coating shall be uniformly and consistently applied to the interior of all conduit and fittings. This internal coating shall be a nominal 2 mil thickness. Conduit or fittings having areas with thin or no coating shall be unacceptable.

The PVC coated galvanized rigid conduit must be UL Listed. The PVC coating must have been investigated by UL as providing the primary corrosion protection for the rigid metal conduit. The PVC coated conduit must be ETL Verified to the Intertek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours. The PVC coated conduit must bare the ETL Verified PVC-001 label to signify compliance to the adhesion performance standard. Ferrous fittings for general service locations must be UL Listed with PVC as the primary corrosion protection. Hazardous location fittings, prior to plastic coating must be UL listed. All conduit and fittings must be new, unused material. Applicable UL standards may include: UL 6 Standard for Safety, Rigid Metal Conduit, UL514B Standard for Safety, Fittings for Conduit and Outlet Boxes. Conduit and

9. The PVC exterior and urethane interior coatings applied to the conduit shall afford sufficient flexibility to permit field bending without cracking or flaking at temperatures above 30°F (-1°C).
10. All male threads on conduit, elbows and nipples shall be protected by application of a urethane coating.
11. All female threads on fittings or conduit couplings shall be protected by application of a urethane coating.
12. Independent certified test results shall be available to confirm coating adhesion under the following conditions:
 - A. Conduit and conduit exposure to 150°F (65°C) and 95% relative humidity with a minimum mean time to failure of 30 days. (ASTM D1151)
 - B. The interior coating bond shall be confirmed using the Standard Method of Adhesion by Tape Test (ASTM D3359).
 - C. No trace of the internal coating shall be visible on a white cloth following six wipes over the coating which has been wetted with acetone (ASTM D1308).
 - D. The exterior coating bond shall be confirmed using the methods described in Section 3.8, NEMA RN1. After these tests the physical properties of the exterior coating shall exceed the minimum requirements specified in Table 3.1, NEMA RN1.
13. Right angle beam clamps and U bolts shall be specially formed and sized to snugly fit the outside diameter of the coated conduit. All U bolts will be supplied with plastic encapsulated nuts that cover the exposed portions of the threads.
14. Installation of the Perma-Cote Conduit System shall be performed in accordance with the Perma-Cote Installation Manual. To assure correct installation, the installer shall be certified by Perma-Cote to install coated conduit.
15. Approved Material: Perma-Cote Coated galvanized rigid conduit and Fittings as manufactured by Perma-Cote, Gilmer, Texas. Any deviation from the above specifications must be approved by the engineer/owner.

fittings shall be evaluated for reliability and performance. Certified test results are the respective test data that have been witnessed and certified to be accurate by an independent, recognized third party.

1. Acceptable conduit and fitting PVC bonds shall be confirmed with a minimum average of 30 days in a heat and humidity test (ASTM D1151 and D2247) with the temperature at 150°F (66°C) and 95% relative humidity.
2. Acceptable seal performance shall be confirmed at 15 psig (positive) and 25 in. of mercury (vacuum) for 72 hours. Contact local Perma-Cote Sales Representatives for third party testing certification and procedure methods.



Technical Information

Exterior PVC and interior urethane coating performance shall be confirmed by the characteristics and tests listed below. Test samples shall be selected at random.

FLAMMABILITY

The PVC coating will burn if subjected to sustained flame or heat above 400°F, however, it will self extinguish upon removal of the heat source or flame.

TOXICITY

Prolonged exposure to heat greater than 200°F or exposure to fire may cause the PVC coating to release harmful emissions which could pose a potential health hazard. Therefore, PVC use is not recommended in areas exposed to sustained temperatures above 200°F. If exposed to fire, particularly in closed areas, users should be aware and observe proper caution.

BOIL TEST

Acceptable conduit coating bonds shall be confirmed if there is no disbondment after a minimum average of 200 hours in boiling water or exposure to steam vapor at one atmosphere. The periodic increments between bond tests shall not exceed 5 hours for the first 25 hours, then it may be lengthened by mutual consent. The RN1 Bond Test and the Standard Method for Measuring Adhesion by Tape Test shall be utilized.

Exterior Adhesion

A 6" length of conduit test specimen shall be placed in boiling water. The specimen shall be periodically removed, cooled to ambient temperature and immediately tested according to the bond test (RN1). When the PVC coating separates from the substrate, the boil time to failure in hours shall be recorded. ASTM D870 describes this test method for accelerated testing of coating adhesive bonds.

Interior Adhesion

A 6" conduit test specimen shall be cut in half longitudinally and placed in boiling water or directly above boiling water with the urethane surface facing down. The specimen shall be periodically removed, cooled to ambient temperature and tested in accordance with the Standard Method of Adhesion by Tape Test (ASTM D3359). When the coating disbonds, the time to failure in hours shall be recorded.

HEAT/HUMIDITY TEST

Acceptable conduit coating bonds shall be confirmed by a minimum average of 30 days in the Heat and Humidity Test. The periodic increment between bond tests shall not exceed 5 days for the first 30 days, then may be lengthened by mutual consent. The RN1 Bond Test and the Standard Method for Measuring Adhesion by Tape Test shall be utilized.

Exterior Adhesion

Conduit specimens shall be placed in a heat and humidity environment where the temperature is maintained at 150°F (66°C) and 95% relative humidity. The specimens shall be periodically removed and a bond test (RN1) performed. When the PVC coating separates from the substrate, the exposure time to failure in days shall be recorded. ASTM D1151, D1735, D2247 AND D4585 are the basis for this accelerated method of evaluating adhesive bonding.

Interior Adhesion

The conditions for interior adhesion testing of conduit specimens are the same as those for external adhesion. ASTM D3359 is used to determine adhesive failure.

ETL Verified PVC-001:

The PVC coating adhesion performance of this product has been ETL verified to the Interek ETL SEMKO High Temperature H₂O PVC Coating Adhesion Test Procedure for 200 hours.

CHEMICAL RESISTANCE TEST

No trace of the internal coating shall be visible on a white cloth following six wipes over the coating which has been wetted with acetone (ASTM D1308).

POLYURETHANE

The supplier shall confirm that the internal coating which meets the above condition is a polyurethane.

Perma-Cote has used the American Society for Testing and Materials (ASTM) standards to provide comparable and consistent test data. A list of ASTM standards referenced in the Perma-Cote Coated Conduit Specification appears below.

ASTM D149

Test Methods for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

ASTM D638

Test Method for Tensile Properties of Plastics

ASTM D746

Test Method for Brittleness Temperature of Plastics and Elastomers by Impact

ASTM D870

Method for Water Immersion Test of Organic Coatings on Steel

ASTM D1151

Test Method for Effect of Moisture and Temperature on Adhesive Bonds

ASTM D1735

Method for Water Fog Testing of Organic Coatings

ASTM D2240

Test Method for Rubber Property-Durometer Hardness

ASTM D2247

Method of Testing Coated Metal Specimens at 100% Relative Humidity

ASTM D3359

Method for Measuring Adhesion by Tape Test

ASTM D4585

Testing Water Resistance of Coatings Using Controlled Condensation

ASTM G23

Recommended Practice for Operating Light-and-Water-Exposure Apparatus (Carbon-Arc Type) for Exposure of Non-Metallic Materials

ASTM D1308

Effect of Chemicals on Clear and Pigmented Organic Finishes

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General Disclaimers

1. All weights and dimensions are approximate and are subject to change without notice.
2. Perma-Cote reserves the right to make engineering changes as needed.
3. Catalog numbers are not intended to represent specific manufacturers.
4. Unless indicated otherwise, all weights and measures are in inch-pound units.
5. Please see current price guide for product availability.



PC-2004

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