



Table of Contents

General Information..... B2

Rigid Metal Conduit Fittings..... B3–B8

Rigid and Intermediate Metal Conduit Fittings..... B9–B51

Electrical Metallic Tubing (EMT) Fittings B52–B57

Flexible Cord and Cable Fittings..... B58–B75

Portable Cord and Cable Fittings B76–B78

Service Entrance Cable Fittings B79–B83

Liquidtight Flexible Metal Conduit Fittings..... B84–B102

Liquidtight Flexible Nonmetallic Conduit Fittings B103–B109

Armoured Cable and Flexible Metal Conduit Fittings B110–B117

Nonmetallic Sheathed Cable Fittings..... B118–B124

General Information



Thomas & Betts... The Complete Product Line

Since the turn of the century, Thomas & Betts has been a recognized leader in electrical fittings. Industry standards such as Chase® Nipples and Erickson® Couplings were introduced by Thomas & Betts and are still registered trademarks. This leadership continues. Here's why.

Innovative Designs

The real test of product design of electrical fittings lies in two areas: job-suited installation and life-of-the-job reliability. Thomas & Betts Fittings provide both because we listen. We listen to problems and suggestions from the field. Most of the products in this section result from the good suggestions of knowledgeable electrical people. Many were custom designed to solve a customer's particular installation and performance problems. You can benefit from their experience.

Approvals and Certifications

Electrical raceways require accessory fittings that provide the mechanical strength, ground continuity, and environmental integrity of the system. As new raceways have been introduced, Thomas & Betts, engineers have designed fittings which meet the requirements of the Canadian Electrical Code, as well as the Canadian Standards Association. You can use Thomas & Betts Fittings with confidence.

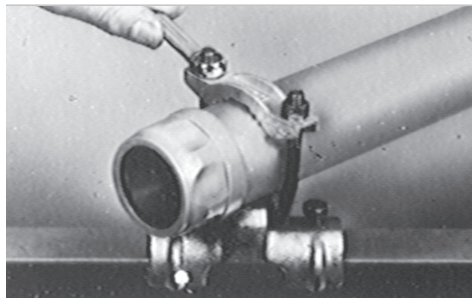
Note: All dimensions in this catalogue are approximate.

High Performance Products

Quality and performance result when engineering design skills are combined with the manufacturing technologies required to produce them. The Thomas & Betts Fittings in this section are produced from many materials and by many manufacturing methods, each carefully selected for its end use suitability. This combination gives you the reliable performance you expect from Thomas & Betts Raceway Fittings.

Lower Installed Cost

Lower installed cost is a function of purchase cost, availability, installation advantage, and performance; it comes in every carton of Thomas & Betts Raceway Fittings.



Rigid Metal Conduit Fittings

Specifications — Rigid Metal Conduit / PVC Coated Rigid Metal Conduit

Ref. CEC Rule 12-1000

Rigid Metal Conduit affords maximum mechanical protection to conductors within the raceway. Rigid metal conduit can be installed indoors and outdoors, in dry locations or wet locations, exposed or concealed, in all atmospheric conditions and in hazardous locations.

Galvanized rigid steel conduit installed in concrete does not require supplementary corrosion protection. Galvanized rigid steel conduit, installed in contact with soil, does not generally require supplementary corrosion protection. However, when buried in corrosive soil (corrosive soil is characterized by low resistivity of less than 2,000 ohm-centimeter) or cinders, a protective coating of bitumastic, asphalt-based paint or a PVC coating is applied to the conduit. CEC Rule 12-934 requires that rigid steel conduit installed in or under permanently moist cinder fill be encased in at least two inches of cinder-free concrete unless the conduit is at least 18 inches below the fill. Steel conduit protected from corrosion solely by enamel can only be used indoors and in occupancies not subjected to severe corrosive influences.

Rigid nonferrous metal conduit (aluminum) cannot be directly embedded in concrete containing soluble chlorides such as calcium chloride; unwashed beach sand, seawater, or coral bearing aggregates. However, if adequately treated by a protective coating of bitumastic or asphalt-based paint or PVC coating, the conduit can be installed in concrete containing chlorides.

Supplementary nonmetallic coatings presently used on ferrous rigid metal or nonferrous metal have not been investigated for resistance to corrosion.

CEC Rule 12-920 requires that when conduit enters a box or fitting, a bushing must be provided to protect wires from abrasion unless the design of the box or fitting provides equivalent protection.

According to CEC Rule 12-906 where No. 8 or larger ungrounded conductors enter or leave a conduit, an insulating bushing with a smooth well rounded insulating surface must be provided to protect conductors unless the terminating fitting is equipped with an insulated throat, firmly secured in place providing equivalent protection. The insulating bushing or insulating material must have a temperature rating of not less than the insulation temperature rating of installed conductors. When conduit bushings are constructed wholly of insulating material, a locknut must be installed both inside and outside of the enclosure to which the conduit is attached.

Fittings and couplings are required to be of concrete-tight type when embedded in masonry or concrete or in dry locations and of the raintight type when installed in wet locations.

In wet locations or locations where walls are frequently washed or where there are surfaces of absorbent materials, the entire wiring system including boxes, fittings, conduit and cables must be supported such that there is at least 1/4 inch air space between it and the supporting surface (CEC Rule 2-122).

CEC Rule 12-3022 requires that the raceways be metallically joined together into a continuous electric conductor and must be mechanically connected to all boxes, fittings and cabinets as to provide effective electrical continuity.

Conduit is required to be supported adequately and conduit bends in one run are restricted to the equivalent of four quarter i.e. 360 degrees total.

Rigid Metal Conduit Fittings

Specifications — Rigid Metal Conduit/PVC Coated Rigid Metal Conduit (cont'd)

For further details and complete information please refer to the following:

1. ANSI C80.1 — Rigid Steel Conduit Zinc Coated, Specifications for
2. ANSI C80.2 — Rigid Steel Conduit, Enameled, Specifications for
3. ANSI C80.5 — Rigid Aluminum Conduit. Specifications for
4. ANSI C80.4 — Fittings for Rigid Metal Conduit and Electrical Metallic Tubing, Specifications for
5. WW-C-581 — Federal Specification, Conduit, Metal, Rigid & Coupling, Elbow, and Nipple, Electrical Conduit, Zinc Coated
6. WW-C-540 — Federal Specification, Conduit, Metal, Rigid (Electrical, Aluminum)
7. WW-C-571 — Federal Specification, Conduit, Metal, Rigid, and Coupling, Elbow, and Nipple, Electrical Conduit Enameled
8. UL 6 — Standards for Safety. Rigid Metal Conduit
9. UL 2142 — Standards for Safety. Intermediate Metal Conduit
10. CEC Section 12-1000 — Rigid and Flexible Conduit
11. CSA C22.2 No. 45 — Safety Standards for Rigid Metal Conduit
12. CSA C22.2 No. 18 — Safety Standards for Outlet Boxes, Conduit Boxes and Fittings
13. NEMA FB-1 — Standards Publication. Fittings and Supports for Conduit and Cable Assemblies
14. A-A-50553 Federal — Specification Fittings for Conduit Metal Rigid (Thickwall & Thinwall [EMT] Type)

Please Note

The excerpts and other material herein, whether relating to the Canadian Standards Association, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Rigid Metal Conduit Fittings

Suggested Specifications for Rigid Metal Conduit/PVC Coated Rigid Metal Conduit and Fittings

- Conduit shall be securely fastened in place, at intervals as specified by the code, using suitable straps, hangers and other supporting assemblies as indicated on plans and as manufactured by Thomas & Betts, Series 1276, 690 and 700. All strap hangers and supporting assemblies shall be of rugged construction capable of supporting weight with a reasonable factor of safety and shall be adequately protected against corrosion. Where applicable, it shall conform to Canadian Standards Association Standard C22.2 No. 18.
- In wet locations or in locations where corrosive conditions are present, vertical and horizontal runs of conduit shall be firmly supported so that there is at least 1/4 in. air space between the conduit and the wall or supporting surface. Spacers and supporting straps shall be of malleable iron construction, hot dipped galvanized conforming to Canadian Standards Association Standard C22.2 No. 18 such as Thomas & Betts Series 1276 straps and Series 1350 spacers. Nonferrous metal straps and spacers may be substituted as required.
- Where threaded conduit terminates into a threadless opening, a locknut shall be provided both inside and outside the box or enclosure and the conduit end shall be fitted with an insulating bushing. In wet locations, a suitable gasket shall be provided between the outside locknut and the opening.

Locknuts shall be rugged, of hardened steel or malleable iron construction, electro-zinc plated and capable of cutting through protective coating on box or enclosure to ensure positive bond such as Thomas & Betts Series 140.
- Where raceway and associated fittings are used as part of an equipment grounding system, terminating fittings shall be equipped with bonding type locknuts such as Thomas & Betts Series 106 bonding locknuts. Sealing gaskets shall be constructed of oil resistant/moisture resistant rubber and shall be suitably protected by and permanently bonded to a stainless steel retainer such as Thomas & Betts Series 5302.
- Where threaded rigid metal conduit is installed outdoor or indoors or in locations exposed to continuous or intermittent moisture, a sealing hub type terminating fitting shall be installed. Hubs shall be of malleable iron/steel construction, electro-zinc plated and equipped with a nylon insulated throat and oil resistant/moisture resistant sealing ring as manufactured by Thomas & Betts, Series 370 or Series H050-TB. Female taper hub threads shall be adequately relieved to prevent bottoming of conduit.

Hubs constructed of copper-free aluminum may be substituted when used with rigid nonferrous (aluminum) metal conduit, Thomas & Betts Series 370AL or H050A.

For environmental conditions that are more than normally corrosive to exposed surfaces, hubs suitably protected with PVC coating such as Thomas & Betts Series 485 shall be used.

					
Series 1276 Conduit Strap	Series 690 Conduit Supports	Series 700 Adjustable Beam Clamp	Series 1350 Conduit Spacer	Series 140 Locknut	Series 106 Bonding Locknut
					
Series 5302 Sealing Gasket	Series 370 Threaded Hub (Raintight)	Series 485 PVC Coated Threaded Hubs (Raintight)	Series 8123 Threadless Fitting (Concrete-tight)	Series 8120 Threadless Coupling (Concrete-tight)	Series 8125 Set Screw Fitting (Concrete-tight)
					
Series 8124 Set Screw Fitting (Concrete-tight)					

Rigid Metal Conduit Fittings

Suggested Specifications for Rigid Metal Conduit/PVC Coated Rigid Metal Conduit and Fittings (cont'd)

• Where concrete-tight requirements must be met, or in dry locations, rigid metal conduit or intermediate metal conduit fittings and couplings shall be of the concrete-tight type. Fittings shall be rugged, of ferrous metal construction, electro-zinc plated inside and outside, and furnished with a nylon bushing as manufactured by Thomas & Betts, Series 8123 and 8120. Insulated set screw type fittings such as Thomas & Betts Series 8125 and 8124 may be substituted unless otherwise indicated on drawings.

Components critical to performance such as set screws, split rings, and locknuts shall be hardened or adequately designed to ensure positive bond between conduit and enclosure or conduit runs.

All fittings of the system shall be capable of carrying ground fault currents per the following:

1/2 in. through 1-1/2 in. size...10,000 amps RMS (duration of fault current 3 cycles)

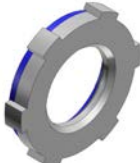
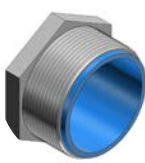

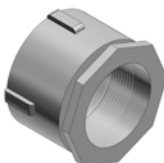

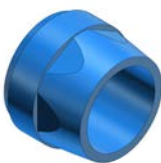
2 in. and above...20,000 amps RMS (duration of fault current 3 cycles)


- All back-to-back nipling of boxes shall be done using locknuts and nylon bushed nipples as manufactured by Thomas & Betts, Series 140 locknuts and Series 1942 nipples. Nipples, or suitably designed bushings such as Thomas & Betts Series 3210, shall also be used where conductors pass through either factory or field punched, cut or drilled holes in metallic members.
- Where neither length of threaded conduit can be rotated, couplings such as Thomas & Betts Series 674 shall be installed in conduit runs.
- Where threaded or threadless conduit terminates outside a box or an enclosure, or where conduit is stubbed up, it shall be equipped with an insulated metallic or nonmetallic bushing such as Thomas & Betts Series 1222 or TRIB50.
- Where code requires bonding and grounding of single or multiple rigid metal conduits or where positive bonding and grounding of conduit to the box, enclosure or auxiliary gutter is required, the end of the conduit shall be equipped with an

insulated metallic grounding and bonding bushing such as Thomas & Betts Series 3870.

Insulated metallic grounding and bonding bushing shall be approved for the purpose. It shall be of malleable iron/steel construction adequately protected against corrosion, assembled with an insulator listed or certified for 150°C/302°F application and flammability rating of 94V-0 with insulator positively secured in place.

Bonding to enclosure shall not be dependent on locknut bushing type contact but by a positive bonding means such as a hardened screw or equivalent.

					
Series 140 Locknut	Series 1942 Insulated Nipple	Series 3210 Knockout Bushing	Series 674 Threaded Coupling	Series 222TB Insulating Bushing	Series TRIB50 Threadless Rigid Insulating Bushing



Series 3870
Insulated Grounding
& Bonding Bussing

Rigid Metal Conduit Fittings

Suggested Specifications for Rigid Metal Conduit/PVC Coated Rigid Metal Conduit and Fittings

- Rigid ferrous metal conduit or PVC coated rigid conduit prior to coating shall be of the hot dipped galvanized type adequately protected against corrosion inside and outside including threads, and conforming to the following applicable specifications:
 - Rigid Ferrous Metal Conduit Federal Specification WW-C-581/ANSI C80.1/UL 6/CSA C22.2 No. 45
 - PVC Coated Ferrous Metal Conduit Applicable listed under (i) and in addition conforming to NEMA Publication No. RNI-2005 (Type A) PVC coating on conduit and associated fittings shall have no sags, blisters, lumps or other surface defects and shall be free of holes.
- Rigid nonferrous metal conduit shall conform to Federal Specification WW-C-540/ANSI C80.5/UL 6/CSA C22.2 No. 45.
- All field cuts shall be square, reamed and deburred. Conduit threads shall be tapered for entire length with 3/4 in. taper per ft. Conduit threads prior to assembly shall be clean and coated with grease metallic type conductive compounds such as Series CP8 KOPR-SHIELD® for ferrous conduit or Series AP8 ALUMA-SHIELD for nonferrous (aluminum) conduit as manufactured by Thomas & Betts.
- To prevent ingress of plaster, dirt, trash or moisture in raceways, boxes, fittings and equipment during course of construction, all open ends shall be closed with rugged thermoplastic plugs as manufactured by Thomas & Betts, Series 1470 and 1451. Plugs shall be firmly secured in place to provide adequate seal and shall be functionally unaffected by moisture. Thermoplastic plugs shall be rated at 105°C/221°F and have a UL flammability rating of 94V-1.



**Cat. #CP8
KOPR-SHIELD***
* TM of Jet-Lube, Inc.



**Cat. #AP8
ALUMA-SHIELD®**



**Series 1451
Knockout Plug**



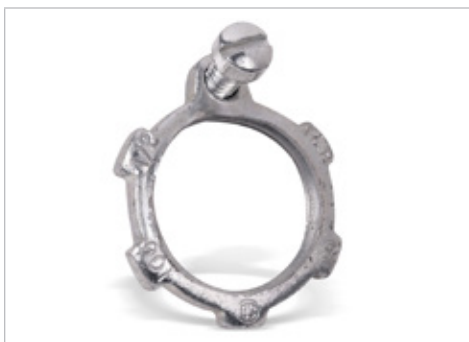
**Series 1470
Plug, Conduit/Fitting**

Rigid Metal Conduit Fittings

Specifications — Locknuts



**140 Series
141AL Series**



106 Series

Application

- To connect externally threaded conduit or fitting to a threadless opening in a box or enclosure
- To effectively bond conduit or fitting to box or enclosure

Features

- Hardened Steel/Malleable Iron/Copper-free Aluminum construction
- Tightens without deformation
- Locknuts specially designed to
 - (1) Provide extended reach for clamping on thin boxes and enclosures
 - (2) Cut through protective coating on box and enclosure thereby ensuring ground continuity
 - (3) Permit tightening from outside
 - (4) Prevent loosening under vibration
- 106 Series provided with a hardened cone point screw

Standard Material

140 Series & 106 Series

- 3/8 in. thru 2 in. Steel (hardened)
- 2-1/2 in. thru 6 in. Malleable Iron
- All screws steel

141AL Series

- All copper-free aluminum (less than 0.4% copper)

Standard Finish

All Steel and Malleable Iron locknuts including bonding screws Electro-zinc plated. All Aluminum locknuts degreased.

Range

- 3/8 in. through 6 in. conduit (all threads straight pipe [NPS]) (140 Series)
- 1/2 in. through 4 in. conduit (106 Series & 141AL Series)

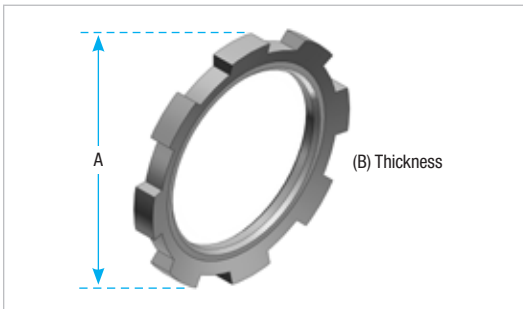
Conformance

UL 514B
CSA C22.2 No. 18.3
NEMA FB-1
ANSI C80.4
Federal Specification W-F-408
Federal Standard H-28 (Threads)

“Case Hardened Locknuts”

Case hardened locknuts make fittings faster and easier to install. Case hardened locknuts do not slip or turn thereby protecting the biting edge. Case hardened locknuts bite through the paint on the enclosure providing excellent continuity of ground (typical T&B/ Thomas & Betts fitting with case hardened locknuts successfully passed minimum fault current of 10,000 amps RMS). Case hardened locknuts when assembled in the intended manner will not vibrate loose thereby ensuring excellent ground continuity.

Rigid and Intermediate Metal Conduit Fittings



Steel or malleable iron (steel thru 2 in.)
or Aluminum 624

Many of the T&B standard conduit and cable fittings are furnished with "case hardened locknuts". This exclusive feature means the locknut tightens up against the box without deforming; the locknut bites into the box providing a positive ground; the fitting can be tightened from outside the box

Locknuts



Std. or M.I.	Cat. No.		Size (in.)	Dimensions (in.)	
	Alum.	SST		A	B
139 [†]	—	—	1/4	27/32	5/32
140 [*]	—	—	3/8	15/16	5/32
141 ^{**}	141AL	141SST	1/2	1-7/64	5/32
142-TB ^{**}	142AL	142SST	3/4	1-3/8	3/16
143	143AL	143SST	1	1-11/16	13/64
144	144AL	144SST	1-1/4	2-5/32	13/64
145	145AL	145SST	1-1/2	2-1/2	13/64
146-TB	146AL	146SST	2	3	7/32
147	147AL	—	2-1/2	3-9/16	13/32
148	148AL	—	3	4-3/16	13/32
149	149AL	—	3-1/2	4-13/16	15/32
150	150AL	—	4	5-5/16	15/32
151	151AL	—	4-1/2	5-15/16	17/32
152	152AL	—	5	6-1/2	17/32
153	153AL	—	6	7-3/4	17/32

* Hex shape

** Case hardened locknuts

Aluminum locknuts comply with federal standard of copper-free aluminum; less than 0.4% copper

[†] Not UL or CSA certified



Steel or malleable iron (steel thru 2 in.)

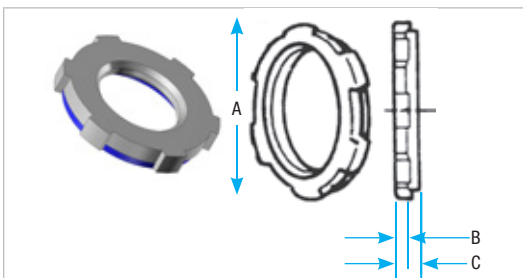
Use anywhere an ordinary locknut is installed to ensure positive bonding of conduit to box and prevent loosening due to vibration. Also can be used for Service Entrance applications in conformance with Code. T&B rigid conduit and EMT (thinwall) fittings comply with Federal Specification WF 408c.

Bonding Locknuts



Cat. No.	Size (in.)	Screw Size (in.)	Dimensions (in.)	
			A	B
106	1/2	8-32 x 7/16	1-3/8	0.125
107	3/4		1-5/8	0.140
108	1		1-15/16	0.170
109	1-1/4		2-5/32	0.170
110-TB	1-1/2		2-1/2	0.170
111	2	1/4-20 x 5/8	3	0.187
112-TB	2-1/2		3-13/32	0.375
113-TB	3		4-13/16	0.375
114	3-1/2		4-29/32	0.438
115-TB	4		5-7/16	0.438

Steel finish: zinc plated



Molded Santprene Seal / Colour: Blue

Provides positive seal against water and oil. For use with rigid and intermediate metal conduits, or fittings to provide watertight or raintight seal at all enclosures. NPS threads..

Fittings

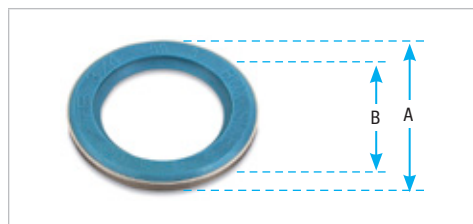


Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
141SL	1/2	1.140	1/8	1/4
142SL	3/4	1.420	5/32	9/32
143SL	1	1.770	11/64	9/32
144SL	1-1/4	2.281	11/64	5/16
145SL	1-1/2	2.598	11/64	9/32
146SL	2	3.175	3/16	19/64

Steel finish: zinc plated

Rigid and Intermediate Metal Conduit Fittings

Sealing Rings with Stainless Steel Retainer

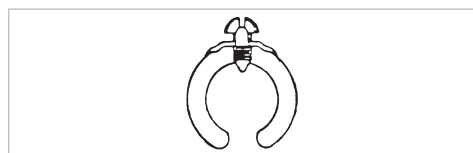


Sealing Ring-Santoprene Thermoplastic Rubber

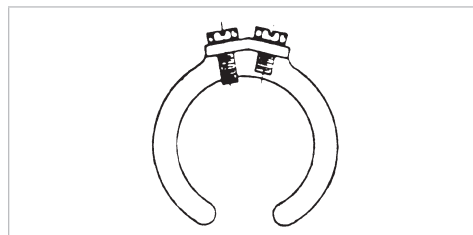
These sealing rings provide a liquid tight, dust tight, seal of fitting at enclosures

Cat. No.	Conduit Size (in.)	Dimensions (in.)	
		A	B±1/64
5302	1/2	1-11/64	3/4
5303	3/4	1-1/2	15/16
5304	1	1-3/4	1-11/64
5305	1-1/4	2-9/64	1-1/2
5306	1-1/2	2-27/64	1-3/4
5307	2	2-59/64	2-15/64
5308	2-1/2	3-7/16	2-43/64
5309	3	4-5/64	3-19/64
5311	4	5-9/32	4-19/64

NEMA 3R, 4, 6 and 13



Series 3650



Series 3651

Bonding and Grounding Wedges

Application

To effectively bond terminating fitting or conduit to a box or enclosure

Features

- Sizes 3/4 in. thru 6 in. equipped with an additional bonding screw to install bonding jumper where required
- Can be added to an existing installation without disconnecting conductors

Standard Material/Finish

1/2 in. size
Steel/Electro-zinc Plated
3/4 in. thru 6 in. size
Bronze/TiPlated

Range

1/2 in. thru 6 in. conduit

Conformity

UL 467
C.S.A. C22.2 No. 41
NFPA70-2008 (ANSI)
Federal Specification A-A-50552



Especially suited for grounding old work, but equally convenient for new, grounding wedges provide grounding without a jumper except in concentric knockouts. When a jumper is required, it fits under a set screw in the grounding wedge.

Update existing installations to meet code requirements for bonding (CEC Section 10-806) without disconnecting wiring. Use on new wiring also.

1. Loosen bushing and position wedge
2. Tighten bushing and bonding screw

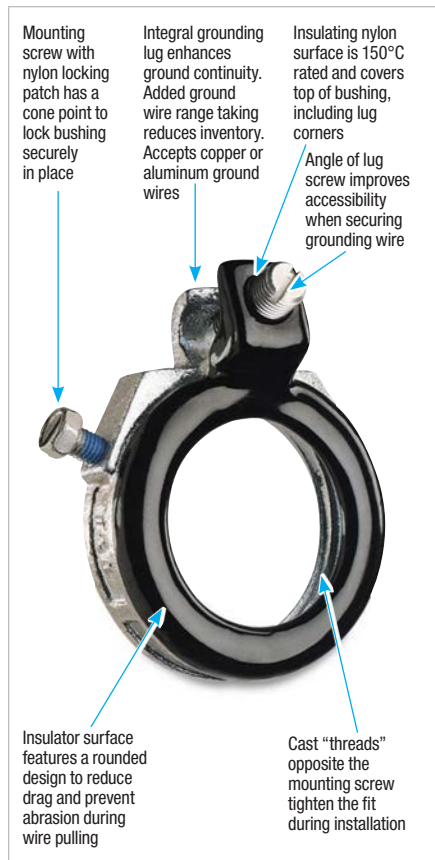
Bonding and Grounding Wedges



Cat. No.	Size (in.)
3650	1/2
3651	3/4
3652	1
3653	1-1/4
3654	1-1/2
3655	2
3656	2-1/2
3657	3
3658	3-1/2
3659	4
3661	5
3662	6

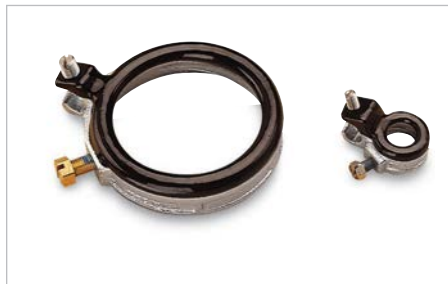
Rigid and Intermediate Metal Conduit Fittings

Blackjack® — Conduit Grounding Bushings



Innovative design makes installation quicker, easier.

The Blackjack® Grounding Bushing never has to be threaded onto a conduit. It is simply placed in position on either a threaded or non-threaded rigid or IMC conduit, with the grounding lug in perfect position to accept the grounding wire. Even in tight installations, it's as simple as one, two, three. Compare the installation with conventional bushings that must be threaded onto the conduit. In tight areas, you may have to remove the grounding lug, keep up with the loose parts, and then reattach the lug. Then you still have to twist and turn the bushing to get the lug in position to accept the grounding wire. The Blackjack® bushing does away with these needless delays for good, making it the ideal grounding bushing and the only logical choice for small spaces, corners, and multiple conduit runs. And, because the grounding lug is an integral part of the bushing, it is designed not to fall off or get lost.



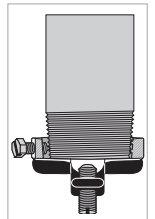
Innovative design improves performance

The Blackjack® bushing provides superior ground continuity

The design of the Blackjack® bushing has an integral, cast-on grounding lug for better ground continuity. This means that the Blackjack® bushing stands up to intense loads.

Secure grip forms lasting bond

The Blackjack® bushing's cone point mounting screw bites securely into both **threaded and non-threaded** rigid conduits. And the Blackjack® bushing's nylon locking patch is designed to prevent the screw from loosening due to vibration.



Reduce inventory

Because the Blackjack® Grounding Bushing is designed for threaded and non-threaded conduits, and the ground lugs are designed to handle an extended range, the number of parts in inventory is reduced by up to two-thirds without losing any application coverage.

Blackjack® — Conduit Grounding Bushings



Lug Screw:

- 14-4: Slotted
- 14-2/0: Slotted
- 6-4/0: Internal Hex Drive

Standard Material/Finish

Body: Malleable Iron or Aluminum

Mounting Screw: (1/2 in.-2 in.)
Stainless Steel,
(2-1/2 in.-6 in.) Brass

Lug Screw: Stainless Steel

Finish: Zinc Plated or Mechanical Galvanized

Range

Conduit: 1/2 in. thru 6 in. threaded or threadless rigid/IMC

Wire Range: #14 AWG to 4/0 AWG CU/AL

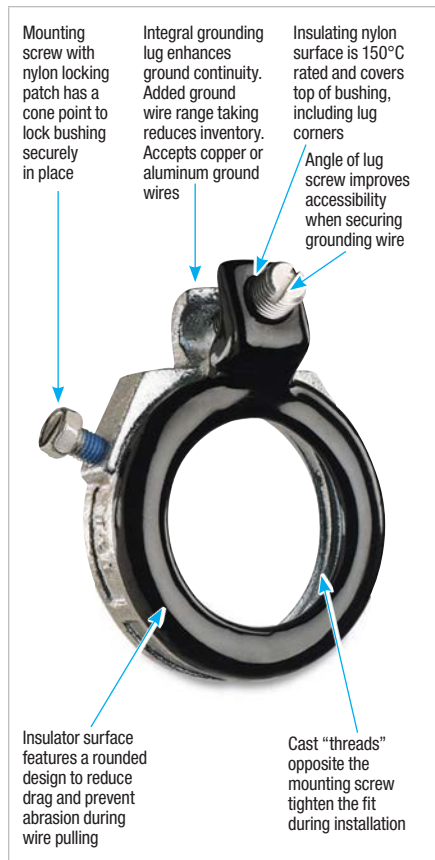
Conformity

UL 514B & UL 467

CSA C22.2 No. 18.3 & CSA C22.2 No. 41

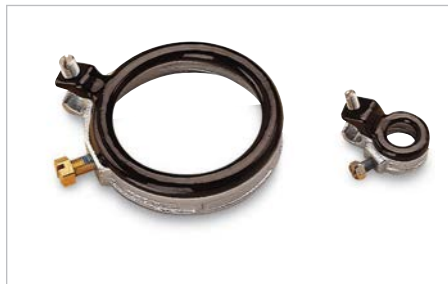
Rigid and Intermediate Metal Conduit Fittings

Blackjack® — Conduit Grounding Bushings



Innovative design makes installation quicker, easier.

The Blackjack® Grounding Bushing never has to be threaded onto a conduit. It is simply placed in position on either a threaded or non-threaded rigid or IMC conduit, with the grounding lug in perfect position to accept the grounding wire. Even in tight installations, it's as simple as one, two, three. Compare the installation with conventional bushings that must be threaded onto the conduit. In tight areas, you may have to remove the grounding lug, keep up with the loose parts, and then reattach the lug. Then you still have to twist and turn the bushing to get the lug in position to accept the grounding wire. The Blackjack® bushing does away with these needless delays for good, making it the ideal grounding bushing and the only logical choice for small spaces, corners, and multiple conduit runs. And, because the grounding lug is an integral part of the bushing, it is designed not to fall off or get lost.



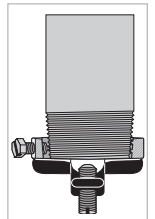
Innovative design improves performance

The Blackjack® bushing provides superior ground continuity

The design of the Blackjack® bushing has an integral, cast-on grounding lug for better ground continuity. This means that the Blackjack® bushing stands up to intense loads.

Secure grip forms lasting bond

The Blackjack® bushing's cone point mounting screw bites securely into both **threaded and non-threaded** rigid conduits. And the Blackjack® bushing's nylon locking patch is designed to prevent the screw from loosening due to vibration.



Reduce inventory

Because the Blackjack® Grounding Bushing is designed for threaded and non-threaded conduits, and the ground lugs are designed to handle an extended range, the number of parts in inventory is reduced by up to two-thirds without losing any application coverage.

Blackjack® — Conduit Grounding Bushings



Lug Screw:

- 14-4: Slotted
- 14-2/0: Slotted
- 6-4/0: Internal Hex Drive

Standard Material/Finish

Body: Malleable Iron or Aluminum

Mounting Screw: (1/2 in.-2 in.)
Stainless Steel,
(2-1/2 in.-6 in.) Brass

Lug Screw: Stainless Steel

Finish: Zinc Plated or Mechanical Galvanized

Range

Conduit: 1/2 in. thru 6 in. threaded or threadless rigid/IMC

Wire Range: #14 AWG to 4/0 AWG CU/AL

Conformity

UL 514B & UL 467

CSA C22.2 No. 18.3 & CSA C22.2 No. 41

Rigid and Intermediate Metal Conduit Fittings

Blackjack® – Conduit Grounding Bushings



Cat. No.		Conduit Size (in.)	Dim.				E Max.	Wire Range
Zinc Plated Malleable Iron	Aluminum		ØA Max.	ØB Max.	ØC Max.	ØD Max.		
BG050-14-20	BGA050-14-20	1/2	1.251	0.569	1.181	2.134	0.696	14-2/0
BG050-14-4	BGA050-14-4		1.251	0.569	1.027	1.940		14-4
BG075-14-20	BGA075-14-20	3/4	1.533	0.772	1.221	2.414		14-2/0
BG075-14-4	BGA075-14-4		1.533	0.772	1.030	2.168		14-4
BG100-14-20	BGA100-14-20	1	1.783	0.993	1.181	2.581		14-2/0
BG100-14-4	BGA100-14-4		1.783	0.993	1.027	2.368		14-4
BG125-14-20	BGA125-14-20	1-1/4	2.220	1.319	1.181	2.987	0.759	14-2/0
BG150-14-20	BGA150-14-20	1-1/2	2.470	1.553	1.181	3.236	0.696	14-2/0
BG200-14-20	BGA200-14-20	2	2.830	2.010	1.181	3.766		14-2/0
BG250-14-20	BGA250-14-20	2-1/2	3.148	2.412	1.181	4.341	0.978	14-2/0
BG250-6-40	BGA250-6-40		3.148	2.412	1.524	4.526		6-4/0
BG300-14-20	BGA300-14-20	3	4.042	3.022	1.181	4.966		14-2/0
BG300-6-40	BGA300-6-40		4.042	3.022	1.524	5.139		6-4/0
BG350-14-20	BGA350-14-20	3-1/2	4.542	3.491	1.181	5.467		14-2/0
BG350-6-40	BGA350-6-40		4.542	3.491	1.524	5.639		6-4/0
BG400-14-20	BGA400-14-20	4	5.042	3.975	1.181	5.966		14-2/0
BG400-6-40	BGA400-6-40		5.042	3.975	1.524	6.139		6-4/0
BG500-14-20	BGA500-14-20	5	6.136	4.991	1.181	7.045		14-2/0
BG500-6-40	BGA500-6-40		6.136	4.991	1.524	7.207		6-4/0
BG600-14-20	BGA600-14-20	6	7.199	6.009	1.181	8.087		14-2/0
BG600-6-40	BGA600-6-40		7.199	6.009	1.524	8.409		6-4/0

Suggested Specifications

Insulated grounding and bonding bushing
(Series BG050-BG600)

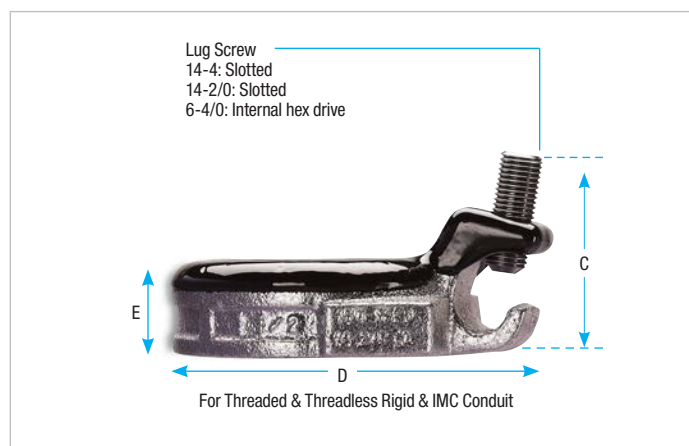
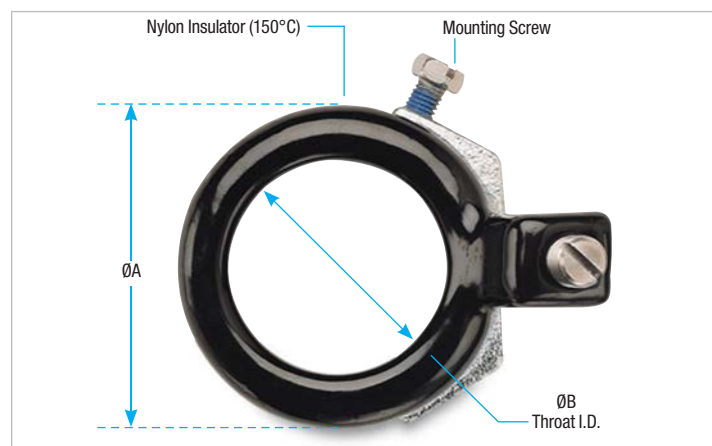
Where code requires bonding and grounding of single or multiple metal conduits, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing Series BG050-14-20 as manufactured by Thomas & Betts.

Grounding and bonding bushings used shall be approved for the purpose and

(i) Shall be of malleable iron/steel/aluminum construction adequately protected against corrosion.

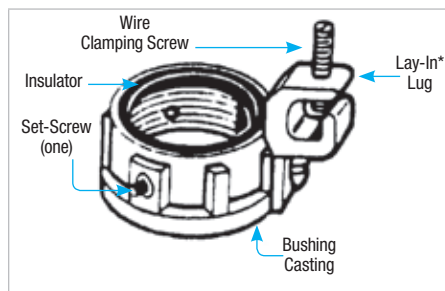
(ii) Bushing insulator shall be listed or certified for 150°C/302°F application with a flammability rating of 94V-0. Insulator must be positively locked in place.

* Mechanical galvanization is available in the 3870 Series; add suffix **MG** to Cat. No.



Rigid and Intermediate Metal Conduit Fittings

Threaded Insulated Grounding Bushing



Application

- For quick installation of bonding jumper to multiple metal conduits (Rigid and IMC)
- Designed to bush conductors and prevent insulation damage

Features

- Ease of installation, lay in lug design
- Cast malleable iron body designed to lock insulator in place within body, reducing common assembly problem resulting in dislodging of insulator
- Insulator rated for 150°C/302°F application

Standard Material / Finish

Body: Electro-zinc plated

Lay-in lug: Aluminum/tin-plated

Insulator: Thermoplastic
150°C/302°F

Application with 94V-0 flammability



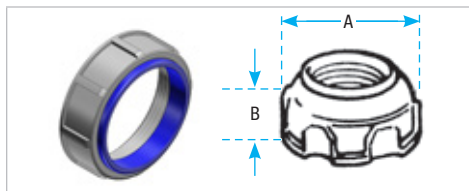
Cat. No.	Conduit Size (in.)	Bushing Dia. (in.)	Throat Dia. (in.)	Lug Length (in.)	Swing Radius (in.)	Bushing Height (in.)	Wire Range AWG CU/AL
3870-TB	1/2	1.125	0.560	1.310	1.212	0.657	14-4
3861		1.125	0.560	1.675	1.402		8-2/0
3871-TB	3/4	1.420	0.742	1.310	1.360	0.660	14-4
3862		1.420	0.742	1.675	1.550		8-2/0
3872	1	1.770	0.944	1.310	1.535	0.735	14-4
3882		1.770	0.944	1.675	1.725		8-2/0
3873	1-1/4	2.190	1.242	1.310	1.745		14-4
3883		2.190	1.242	1.675	1.935	0.770	8-2/0
3874	1-1/2	2.468	1.449	1.310	1.884		14-4
3884		2.468	1.449	1.675	2.074		8-2/0
3875	2	3.031	1.860	1.310	2.165	0.940	14-4
3889		3.031	1.860	1.675	2.355		8-2/0
3876	2-1/2	3.516	2.222	1.310	2.408		14-4
3886		3.516	2.222	1.675	2.598	0.975	8-2/0
3993	3	3.516	2.222	2.230	2.928		6-4/0
3877		4.234	2.761	1.310	2.767		14-4
3887		4.234	2.761	1.675	2.957	0.980	8-2/0
3994	3-1/2	4.234	2.761	2.230	3.287		6-4/0
3878		4.781	3.193	1.310	3.040		14-4
3863		4.781	3.193	1.675	3.230	0.985	8-2/0
3995	4	4.781	3.193	2.230	3.560		6-4/0
3879		5.328	3.623	1.310	3.314	1.200	14-4
3864		5.328	3.623	1.675	3.504		8-2/0
3996	5	5.328	3.623	2.230	3.834		6-4/0
3880		6.328	4.542	1.310	3.814	1.200	14-4
3865		6.328	4.542	1.675	4.000		8-2/0
3998	6	6.328	4.542	2.230	4.334		6-4/0
3881		7.406	5.458	1.310	4.353	1.200	14-4
3866		7.406	5.458	1.675	4.543		8-2/0
3999		7.406	5.458	2.230	4.875		6-4/0

Temperature rating 150°C

Meets Coast Guard Regulation CG293

*Contact your Regional Sales Office for copper lay in lug

Rigid and Intermediate Metal Conduit Fittings



Nylon insulated metallic bushings

Steel or malleable iron (Steel thru 1-1/2 in.)

The Canadian Electric Code 10-906 (2) calls for protection of ungrounded conductors by means of smoothly rounded insulating surfaces at the entrance to raceways, pull boxes, junction boxes, etc. T&B insulated throat fittings, recognizable by the distinctive trademarked blue insulating liner in the throat, meet and surpass this Code requirement. In addition, T&B insulated fittings also reduce wire pulling effort by as much as 50%. Temperature rating 105°C.

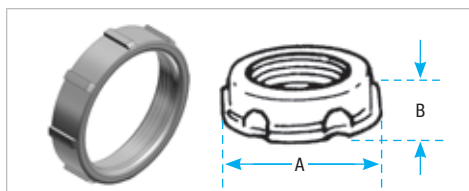
Insulated Throat Fittings



Cat. No. Steel or M.I.	Aluminum	Size (in.)	Dimensions (in.)	
			A	B
1222	1222AL	1/2	1-1/32	29/64
1223	1223AL	3/4	1-9/32	31/64
1224	1224AL	1	1-19/32	19/32
1225	1225AL	1-1/4	1-15/16	21/32
1226	1226AL	1-1/2	2-3/16	23/32
1227	1227AL	2	2-11/16	7/8
1228	1228AL	2-1/2	3-3/16	31/32
1229	1229AL	3	3-27/32	15/16
1230	1230AL	3-1/2	4-7/16	1-1/16
1231	1231AL	4	4-7/8	1-3/32
1232†	1232AL†	4-1/2	5-7/16	1-15/64
586	586AL	5	5-31/32	1-9/32
587	587AL	6	7-3/16	1-11/32

† Not CSA Certified

The aluminum series are not CSA certified



Aluminum, steel or malleable iron
(steel thru 1-1/2 in.)

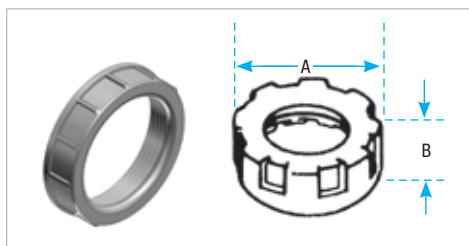
Smoothly rounded shoulder covers end of conduit; broad flange covers knockout hole. High ribs make tightening easy with fingers or with wrench. 1/2 in.-1-1/2 in. sizes, formed in steel, have extra smooth shoulders. Locknut-type base gives improved bonding and resists loosening under conditions of vibration.

Metallic Bushings



Cat. No. Steel or M.I.	Aluminum	Size (in.)	Dimensions (in.)	
			A	B
122	122AL	1/2	1-1/32	13/32
123	123AL*	3/4	1-9/32	13/32
124	124AL	1	1-19/32	1/2
125-TB	125AL	1-1/4	1-15/16	9/16
126	126AL	1-1/2	2-3/16	9/16
127	127AL	2	2-11/16	19/32
128	128AL	2-1/2	3-3/16	13/16
129	129AL	3	3-27/32	13/16
130-TB	130AL	3-1/2	4-7/16	15/16
131-TB	131AL	4	4-7/8	1
132-TB	—	4-1/2	5-7/16	1-5/64
133-TB	133AL	5	6-1/16	1-1/16
134-TB	134AL	6	7-3/16	1-1/16

* Not UL Listed or CSA Certified



All Plastic Insulating Bushings

Impact-resistant plastic insulation. These bushings have ribs for gripping when installing. Perfect threads for easy thread on. UL Listed 105°C. NPT threaded.

Plastic Insulating Bushings

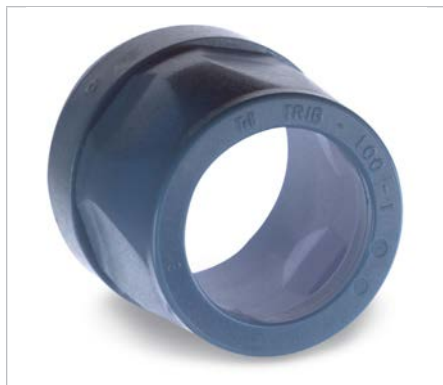


Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
222-TB	1/2	1-1/16	3/8
223-TB	3/4	1-9/32	13/32
224	1	1-37/64	9/16
225-TB	1-1/4	2-1/32	9/16
226	1-1/2	2-15/64	9/16
227	2	2-25/32	5/8
228-TB	2-1/2	3-13/32	3/4
229-TB	3	4-3/32	3/4
230-TB	3-1/2	4-5/8	7/8
231	4	5-3/16	7/8
232	4-1/2	5-5/8	7/8
233	5	6-3/8	1
234	6	7-7/16	1

Flame retardant. UL Rated 94V-1

Rigid and Intermediate Metal Conduit Fittings

Insulating Bushing for Threadless Rigid Conduit and Intermediate Metal Conduit



TRIB50 Series



1. Cut conduit end squarely. Remove sharp edges and burrs on inside and outside diameters by reaming or filing.
2. Slip the pop-on bushing over the end of the conduit.

Application

- When assembled to the end of a threadless conduit, provides a well rounded insulating surface over which conductors may be pulled or on which conductors may bear while in service

Features

- Designed to be popped onto, and bush, conduit end
- Fast easy installation without screws
- High impact thermoplastic construction

Standard Material

High impact thermoplastic listed for 105°C (221°F) application
Flammability Classification 94V-1

Standard Finish

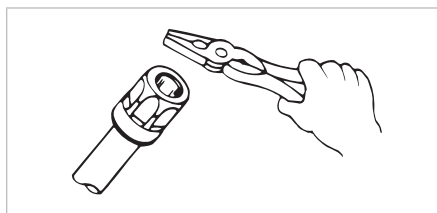
As molded

Range

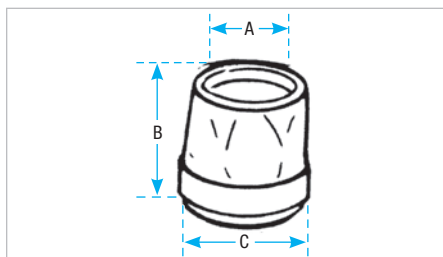
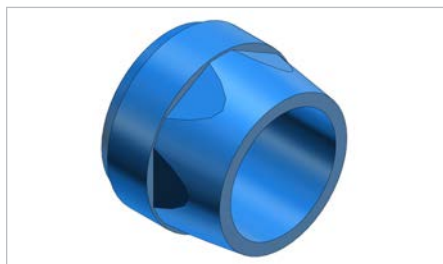
1/2 in. through 4 in. conduit

Conformity

UL 514B
ANSI C80.4
NFPA 70-2008 (ANSI)



3. Using the flat surface of any standard utility tool such as an electricians pliers (or a hammer with a block of wood, for the larger sizes), strike the bushing on its top surface using a Series of light blows until the end of the conduit rests against the bushing throat and conduit stop.



Insulated Metallic Bushing



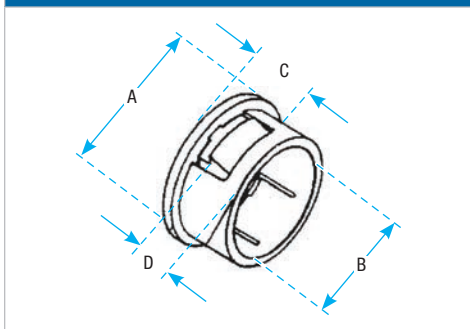
Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
TRIB-50	1/2	19/32	1-9/32	1-1/16
TRIB-75	3/4	25/32	1-25/64	1-1/4
TRIB-100	1	1	1-1/2	1-9/16
TRIB-125	1-1/4	1-5/16	1-5/8	1-59/64
TRIB-150	1-1/2	1-17/32	1-21/32	2-11/64
TRIB-200	2	1-31/32	1-13/16	2-11/16
TRIB-250	2-1/2	2-23/64	2	3-1/4
TRIB-300	3	2-59/64	2-7/32	3-29/32
TRIB-350	3-1/2	3-3/8	2-5/16	4-29/64
TRIB-400	4	3-27/32	2-13/32	5

I.M.C. sizes 1/2 in. thru 4 in.
UL Rated flame retardant 94V-1

Rigid and Intermediate Metal Conduit Fittings



3210 Series



One-piece knockout bushing quickly snaps into outlet box, switch box, or other enclosure left vacant by wiring modifications or maintenance changes. Provides smooth, rounded insulation surface for easy wire pulling. Easily installed by hand, they are available to fit 1/2 in. through 2 in. knockouts. UL Listed 105°C. High impact thermoplastic.

Application

- To bush knockout openings in metal boxes or enclosures

Features

- One piece construction designed to snap in place
- High impact strength self-extinguishing, non-dripping (per UL 94) thermoplastic construction

Standard Material

Thermoplastic rated for 105°C (221°F) application

Standard Finish

As molded

Range

- 0.875 in. through 2.469 in. nominal diameter knockout opening (1/2 in. through 2 in. trade size knockouts)
- HWall thickness of box or enclosure 0.095 in. max. up to 1 in. trade size. 0.140 in. max. 1-1/4 in. through 2 in. trade size

Conformity

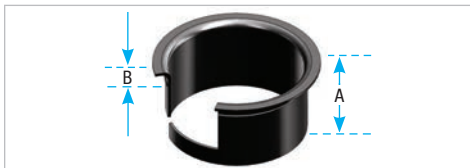
UL 514B
CSA C22.2 No. 18.3
NFPA 70-2008 (ANSI)

Knockout Bushings



Cat. No.	Trade Size (in.)	For use in KO* +.032/-0.16 (in.)	A (in.)	B (in.)	Wall Thickness of Elec. Box (in.)	C (in.)	D (in.)
3210	1/2	0.875	1.000	0.725	0.095 MAX	0.360	0.180
3211	3/4	1.109	1.215	0.940			
3212	1	1.375	1.500	1.200			
3213	1-1/4	1.734	1.865	1.550	0.140 MAX	0.400	0.210
3214	1-1/2	1.984	2.240	1.760			
3215	2	2.469	2.740	2.245			

* Per UL and NEMA standards
Material: Thermoplastic
Flammability classification of 94V-1 Per UL 94
Service temperature: -40°C to 105°C



Slip over wires — insert into bushing — snaps into place High dielectric nylon, 105°C.

An Insuliner® sleeve snapped into a regular bushing makes a CSA Listed insulated bushing. For standard rigid conduit, EMT (thinwall conduit) or any standard bushed outlet. Especially suitable for use with flexible metallic conduit.
Converts ordinary bushing to code approved insulated bushing without disturbing wiring.

INSULINER® Sleeves



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
422	1/2	5/8	0.022
423	3/4	11/16	0.025
424	1	7/8	0.040
425	1-1/4	1	
426-TB	1-1/2	1	0.050
427-TB	2	1-1/8	
428-TB	2-1/2	1-1/4	0.035
429	3	1-1/2	
430-TB	3-1/2	1-25/32	
431	4	2-1/32	
433	5	2-1/2	
434	6	2-1/2	

Oxygen index >28°

Rigid and Intermediate Metal Conduit Fittings

Knockout Plugs

Application

- To bush knockout openings in metal boxes or enclosures

Features

- One piece construction designed to snap in place
- High impact strength self extinguishing non-dripping (per UL 94) thermoplastic construction

Standard Material

Thermoplastic rated for 105°C (221°F) application

Standard Finish

As molded

Range

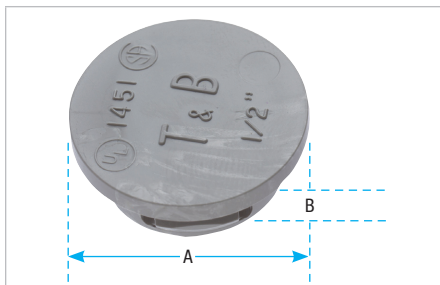
- 0.875 in. through 2.469 in. nominal diameter knockout opening (1/2 in. through 2 in. trade size knockouts)
- Wall thickness of box or enclosure
0.095 in. max. up to 1 in. trade size
0.140 in. max. 1-1/4 in. through 2 in. trade size

Conformity

UL 514B

CSA C22.2 No. 18.3

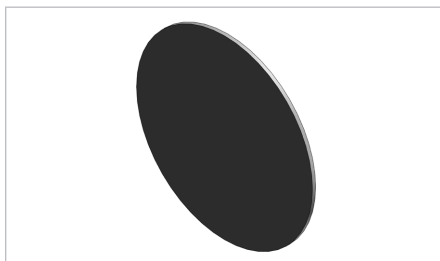
NFPA 70-2008 (ANSI)



105°C rated by UL Made from flame retardant, non-dripping thermoplastic.

Cat. No.	Knockout Trade Size (in.)	Dimensions (in.)	
		A	B
1451	1/2	1.060	0.400
1452	3/4	1.300	
1453	1	1.590	
1454	1-1/4	1.860	0.450
1455	1-1/2	2.240	0.570
1456	2	2.740	

Wall thickness of electrical box 0.095 max.
Meets Coast Guard Regulation CB293



A penny under a bushing will seal the end of the conduit during construction. Made to fit any bushing. Completely salvageable.

Pennies — Steel



Cat. No.	Size (in.)
815-TB	1/2
816	3/4
817	1
818	1-1/4
819	1-1/2
820	2
821	2-1/2
822	3
824-TB	3-1/2
823	4

UL not applicable

Rigid and Intermediate Metal Conduit Fittings

Plug, Conduit, Connectors (Push-Penny® Plugs)

Application

- To plug open end of conduit or fitting in order to prevent ingress of trash, dirt or moisture during construction and remodeling

Features

- Wide range of application; can be used with rigid metal conduit, intermediate metal conduit, electrical metallic tubing, all connectors and all bushings
- Designed to stand up to normal handling and is functionally unaffected by moisture

Standard Material

Polyethylene

Standard Finish

As molded

Conformity

CSA C22.2 No. 18

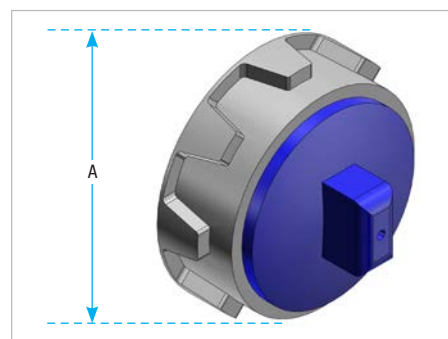
ANSI C80.4

NFPA 70-2008 (ANSI)

NEMA FB-1

CEC Rule: 12-3024

"Unused openings in boxes, cabinets and fittings shall be effectively closed by plugs or plates affording protection substantially equivalent to that of the wall of the box, cabinet or fittings."

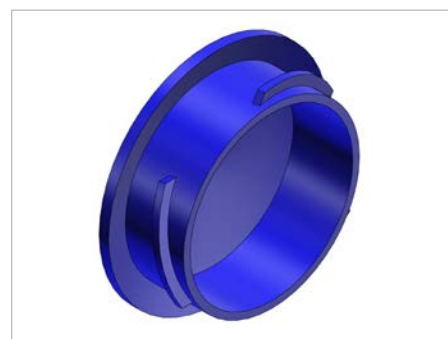


Bushings and Push-Penny® Plugs



Cat. No.	Size (in.)	A (in.)	Assembly consist of	
			Bushing	Push-Penny
1460	1/2	1-1/32	122	1470-TB
1461	3/4	1-9/32	123	1471
1462	1	1-19/32	124	1472
1463	1-1/4	1-15/16	125	1473
1464	1-1/2	2-3/16	126	1474
1465*	2	2-21/32	127	1475

* Maleable Iron
Available in Aluminum
Add suffix **AL** to Cat. No.



Push-Penny® Plugs



Cat. No.	Size (in.)
1470-TB	1/2
1471	3/4
1472	1
1473	1-1/4
1474	1-1/2
1475	2
1476*	2-1/2
1477*	3
1478*	3-1/2
1479*	4

*Not CSA Certified
UL not applicable

Rigid and Intermediate Metal Conduit Fittings

Application

- To effectively bush factory or field-punched, cut, or drilled holes in metal boxes or enclosures
- To couple boxes back-to-back

Features

- Rugged construction
- Insulator curled over to: Bush conductors entering/leaving at any angle. Reduce wire pull effort. Protect threads against damage in handling

Standard Material

1942 Series

Body 1/2 in.-Steel
3/8 in., 3/4 in. through 6 in. - Malleable Iron

Insulator Nylon

842AL Series All Copper-free Aluminum (less than 0.4% copper)

1942 Series

Electro-zinc Plated & Chromate Coated

842AL Series

Degreased

Range 1942 & 842AL Series

1/2 in. through 6 in.

All hub threads straight pipe (NPS)

Conformity

UL 514B

CSA C22.2 No. 18.3

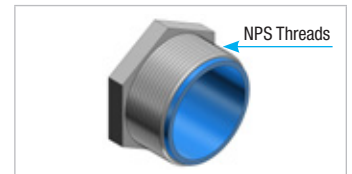
Federal Specification W-F-408

ANSI C80.4

NFPA 70-2008 (ANSI)

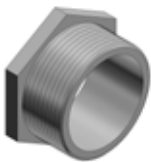
NEMA FB-1

Federal Standard H-28 (Threads)

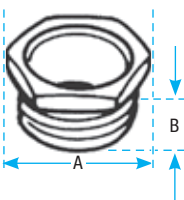


**1942 Series
842AL Series
(Non Insulated)**

Standard Fini



Steel, malleable iron or aluminum

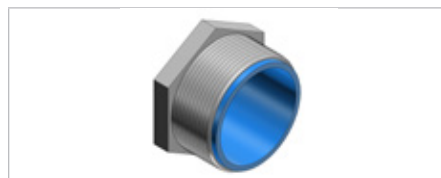


CHASE® Nipples

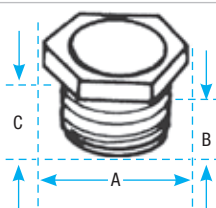


Cat. No. Stl. or M.I.	Alum.	Size (in.)	Dimensions (in.)	
			A	B
841TB	—	3/8	13/16	7/16
842TB	842ALTB†	1/2	15/16	11/32
843TB	843ALTB	3/4	1-3/16	11/32
844	844AL†	1	1-7/16	21/32
845	845AL†	1-1/4	1-3/4	3/4
846	846AL	1-1/2	2-1/16	13/16
847	847AL	2	2-1/2	31/32
848	848AL	2-1/2	3-1/16	1-1/16
849	849AL	3	3-13/16	1-3/16
850	850AL	3-1/2	4-3/8	1-5/16
851	851AL	4	4-3/4	1-5/16
853	853AL	5	5-7/8	1-5/16
854	854AL	6	6-15/16	1-3/8

† Not UL Listed



Steel or malleable iron



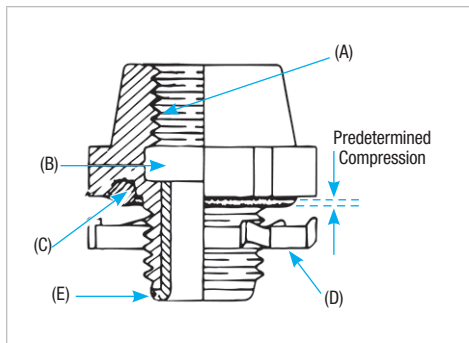
CHASE® Nipples – Nylon Insulated



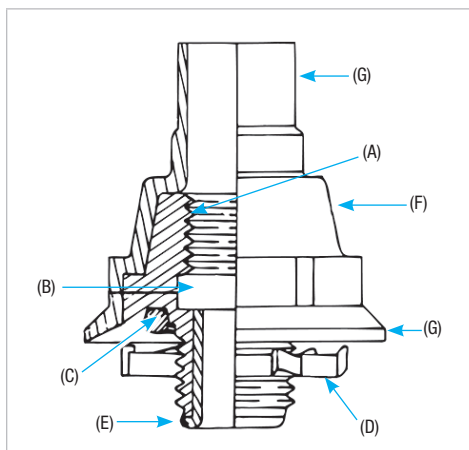
Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
1942	1/2	15/16	1/2	19/32
1943	3/4	1-3/16	17/32	23/32
1944	1	1-7/16	21/32	7/8
1945	1-1/4	1-3/4	25/32	1-1/32
1946	1-1/2	2-1/16	13/16	1-3/32
1947	2	2-9/16	31/32	1-11/32
1948	2-1/2	3-1/16	1-1/16	1-7/16
1949	3	3-13/16	1-3/16	1-19/32
1950	3-1/2	4-3/8	1-5/16	1-25/32
1951	4	4-5/8	1-5/16	1-13/16
1953	5	5-29/32	1-5/16	1-13/16
1954	6	6-13/16	1-3/8	1-7/8

Rigid and Intermediate Metal Conduit Fittings

Threaded Hubs (Bullet® Hubs) for Threaded Rigid Metal Conduit/IMC/PVC Coated Rigid Metal Conduit



**370 Series
370AL Series**



485 Series

Application

- To connect threaded metal conduit (ferrous rigid/nonferrous rigid/PVC coated/ or intermediate metal) to a threadless opening in a box or enclosure in outdoor or indoor location exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Rugged steel/malleable iron/copper-free aluminum construction.
- Tapered internal threads for watertight/ dust tight union (A)
- Threads relieved to prevent bottoming of conduit ensuring sound assembly (B)
- Recessed sealing ring at box end. Captive sealing ring (C)
- Hardened steel/malleable iron/copper-free aluminum locknuts designed to provide high quality ground continuity; extended reach of locknut permits clamping on thin boxes and enclosures (D)
- Insulated throat protects conductors, prevents abrasion and thinning of conductor insulation, reduces wire pull effort (E)
- Suitable for hazardous location use per following:
 - (1) Class II, Division 1 Groups E, F, G, CEC Rule 18-202
 - Class II, Division 2 Groups E, F, G, CEC Rule 18-252
 - Class III, Division 1 Rule 18-302
 - Class III, Division 2 Rule 18-352

- PVC coated 485 Series

- (1) Protects fitting from extremely corrosive surroundings without affecting integrity of electrical grounding path (F)
- (2) Provided with overlapping sleeve for additional seal (G)

Canadian Electric Code Rule 10-602 states that, "Where **dissimilar metals** cannot be avoided at bonding connections as indicated in Rule 2-112 (2). Connections shall be made using methods or material that will minimize deterioration from galvanic action".

Joint Industrial Council (JIC) Electrical Standards also forbid dissimilar metals in contact for the same reason and require that the fittings for metal conduit be of malleable iron or ductile iron and have impact strength comparable to that of the conduit.

"Copper-free Aluminum"

- Copper-free aluminum castings for fittings have a maximum of 0.4% copper. The most detrimental effect of higher percentage of copper on aluminum base alloy is its decrease in corrosion resistance.

Rigid and Intermediate Metal Conduit Fittings

Threaded Hubs (Bullet® Hubs) for Threaded Rigid Metal Conduit/IMC/PVC Coated Rigid Metal Conduit (cont'd)

Standard Material

	370-485 Series	370AL Series
Body	1/2 in. thru 1 in. Steel 1-1/4 in. thru 6 in. Malleable Iron	All Copper-Free Aluminum
Locknut	1/2 in. thru 2 in. Steel (hardened) 2-1/2 in. thru 6 in. Malleable Iron	1/2 in. thru 2 in. Steel (hardened) 2-1/2 in. thru 4 in. Copper-free Aluminum
Screws	Steel (hardened)	
'O' Ring	Buna N	
Insulator	Nylon	
Coating	PVC	

Standard Finish

	370 Series	370AL Series	485 Series
Hub	Electro-zinc Plated	As Cast Chromate Coated	PVC — Outside Electro-zinc
Locknuts	All Ferrous locknuts Electro-Zinc Plated and Chromate Coated		Plated Chromate Coated-Inside
Screws	All Electro-Zinc Plated & Chromate Coated		

Range

370 Series	1/2 in. thru 6 in. Conduit
370AL & 485 Series	1/2 in. thru 4 in. Conduit All hub threads — straight pipe All female threads — taper pipe (NPT)

Conformity

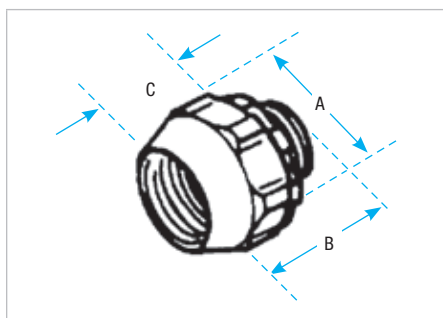
UL 514B CSA 22.2 No. 18.3 ANSI C80.4 NFPA 70-2008 (ANSI) NEMA FB-1 JIC EGP1; JIC EMP 1 Federal Specification W-F-408 Federal Standard H-28 (Threads)

Rigid and Intermediate Metal Conduit Fittings



Nylon insulated

Aluminum, steel, or malleable iron (steel through 1 in.). With Neoprene "O" Ring provides a watertight threaded hub on enclosures. UL Listed 105°C.



Steel/Malleable Iron and Aluminum Hub Fittings†



Cat. No.		Size (in.)	Dimensions (in.)			Wall Thk. Max. (in.)
Stl. or M.I.	Alum.**		A	B	C	
370	370AL	1/2	1-3/8	1-5/16	3/4	5/16
371	371AL	3/4	1-5/8	1-3/8	7/8	
372	372AL	1	2-3/32	1-23/32	1-7/32	
373	373AL	1-1/4	2-9/16	2	1-11/32	
374	374AL	1-1/2	3-3/32	2	1-11/32	
375	375AL	2	3-5/8	1-31/32	1-11/32	
376	—	2-1/2	4-1/8	2-21/32	1-15/16	1/2
377	—	3	5	2-31/32	2	
378	—	3-1/2	5-9/16	3-1/8	2-1/8	
379-TB	—	4	6-9/16	3-1/8	2-1/8	
381-TB	—	5	8	4	2-3/16	
382-TB	—	6	9-3/16	4	2-3/16	

** Aluminum not available with insulated throat

† UL Listed raintight and CSA Certified watertight and dust tight

Bullet® Hub Fittings with Bonding Locknut – Nylon Insulated



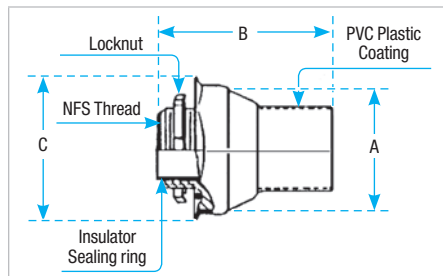
Cat. No.	Size (in.)	Description
401	1/2	Available in steel or malleable iron Supplied with 106 Series bonding nut. Temperature rating: 105°C.
402	3/4	
403-TB	1	
407	2-1/2	
408	3	
409	3-1/2	
410-TB	4	

CSA certified watertight and dust tight

Rigid and Intermediate Metal Conduit Fittings



Steel or malleable iron (steel thru 1-1/4 in.)



PVC Coated Hub for Rigid Conduit



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
485	1/2	1-21/64	2-1/8	1-7/8
486	3/4	1-19/32	2-3/8	2-1/8
487	1	1-27/32	2-3/4	2-3/8
488	1-1/4	2-15/32	3-3/8	3-1/8
489	1-1/2	2-29/32	3-5/8	3-1/2
490	2	3-3/8	3-3/4	4
491	2-1/2	3-27/32	4	4-1/2
492	3	4-21/32	4-5/8	5-3/8
493	3-1/2	5-9/64	4-13/16	5-7/8
494	4	5-3/4	4-9/16	6-7/16

*485 Series are CSA Certified Watertight and Dusttight for Ordinary Locations

Spacing Chart for Bullet® Hubs



Center to Center Spacing Conduit Sizes (in.)											Min. Space from Center of Bullet® Hub to Wall of Box (in.)	KO Diameter Min. (in.)
	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4		
1/2	1-7/16	1-5/8	1-3/4	2-1/8	2-3/8	2-5/8	2-7/8	3-5/16	3-1/2	3-7/8	3/4	7/8
3/4	—	1-3/4	1-7/8	2-1/4	2-1/2	2-3/4	3	3-1/2	3-3/4	4-1/8	7/8	1-1/8
1	—	—	2	2-3/8	2-5/8	2-7/8	3-1/8	3-5/8	3-7/8	4-1/4	1-1/8	1-3/8
1-1/4	—	—	—	2-11/16	2-15/16	3-1/4	3-1/2	4	4-1/4	4-1/2	1-3/8	1-3/4
1-1/2	—	—	—	—	3-1/8	3-1/2	3-3/4	4-1/8	4-3/8	4-3/4	1-5/8	2
2	—	—	—	—	—	3-3/4	4	4-1/2	4-3/4	5	1-7/8	2-1/2
2-1/2	—	—	—	—	—	—	4-1/4	4-3/4	5	5-3/8	2-1/8	3
3	—	—	—	—	—	—	—	5-1/8	5-3/8	5-3/4	2-5/8	3-5/8
3-1/2	—	—	—	—	—	—	—	—	5-5/8	6	2-7/8	4-1/8
4	—	—	—	—	—	—	—	—	—	6-1/4	3-1/4	4-5/8

T&B® Hub Centerline Spacing Chart



Conduit Trade Size (in.)	1/2 (in.)	3/4 (in.)	1 (in.)	1-1/4 (in.)	1-1/2 (in.)	2 (in.)	2-1/2 (in.)	3 (in.)	3-1/2 (in.)	4 (in.)	5 (in.)	6 (in.)
1/2	1-9/16											
3/4	1-43/64	1-25/32										
1	1-27/32	1-61/64	2-1/8									
1-1/4	2-1/32	2-9/64	2-5/16	2-1/2								
1-1/2	2-7/32	2-21/64	2-1/2	2-11/16	2-7/8							
2	2-15/32	2-37/64	2-3/4	2-15/16	3-1/8	3-3/8						
2-1/2	2-23/32	2-53/64	3	3-3/16	3-3/8	3-5/8	3-7/8					
3	3-1/32	3-9/64	3-5/16	3-1/2	3-11/16	3-15/16	4-3/16	4-1/2				
3-1/2	3-11/32	3-21/64	3-5/8	3-13/16	4	4-1/4	4-1/2	4-13/16	5-1/8			
4	3-19/32	3	3-7/8	4-1/16	4-1/4	4-1/2	4-3/4	5-1/16	5-3/8	5-5/8		
5	4-9/32	3-25/64	4-9/16	4-3/4	4-15/16	5-3/16	5-7/16	5-3/4	6-1/16	6-5/16	7	
6	4-11/16	4-51/64	4-31/32	5-5/32	5-11/32	5-19/32	5-27/32	6-5/32	6-15/32	6-23/32	7-13/32	7-13/16
Nearest obstruction to center of hub												
	27/32	61/64	1-1/8	1-5/16	1-1/2	1-3/4	2	2-5/16	2-5/8	2-7/8	2-9/16	3-31/32

Rigid and Intermediate Metal Conduit Fittings

The T&B® Hub

Never before has a single hub fit like this one. Designed for unequalled performance. The innovative engineering of the T&B® Hub will, quite simply, raise your performance expectations for threaded hubs. The revolution in hub design is here, and the fate of our competition is sealed.

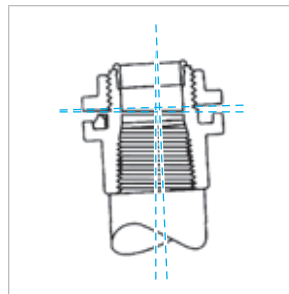
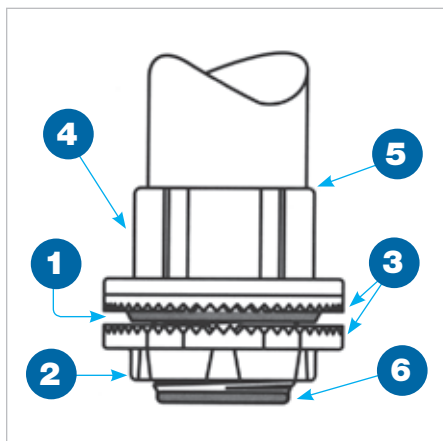


Figure 1

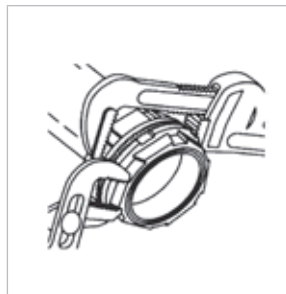


Figure 2

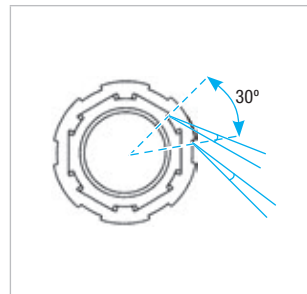


Figure 3

1. Sealing ring and groove with innovative profile outperforms standard 'O' ring design. Sealing ring is captive before installation and resists buckling or slipping during installation. The seal groove is designed for optimum compression of the sealing ring. The sealing ring is designed to provide a complete 360° seal, even when the conduit is not perpendicular with the enclosure. (See Figure 1)

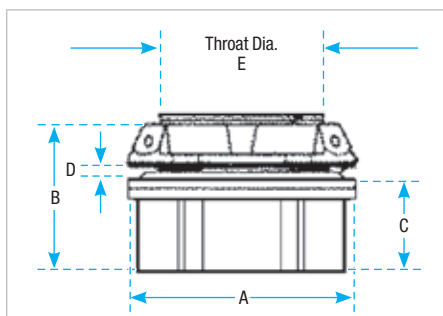
2. Locknut design with peripheral slots and a hexagonal/angled spline spaced every 30° enables easy application of torque with wrench or hammer and screwdriver. (See Figures 2 & 3)

3. Sharper and deeper teeth on locknut and body designed for a more penetrating bite for improved bonding to the enclosure.

4. Hexagonal / splined body design for fast, easy installation with wrench or hammer and screwdriver.

5. Precision machined tapered threads designed to create watertight union.

6. Insulated throat molded from 105°C rated thermoplastic with a flammability rating of 94V-0.



T&B® Hub

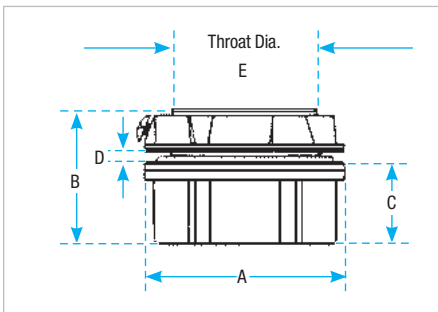


Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)	Dia. (in.)			Max. Panel Thickness D (in.)	Throat Dia. E (in.)
			A	B	C		
H050-TB	H050A	1/2	1-7/16	1-9/16	7/8	3/16	19/32
H075-TB	H075A	3/4	1-21/32	1-19/32	29/32		25/32
H100-TB	H100A	1	2	1-13/16	1-1/16	1/4	1
H125-TB	H125A	1-1/4	2-3/8	1-7/8	1-1/16		1-5/16
H150-TB	H150A	1-1/2	2-3/4	1-7/8	1-1/16		1-17/32
H200-TB	H200A	2	3-1/4	1-15/16	1-5/32		1-31/32
H250-TB	H250A	2-1/2	3-3/4	2-9/16	1-9/16		2-13/32
H300-TB	H300A	3	4-3/8	2-21/32	1-19/32		2-31/32
H350-TB	H350A	3-1/2	5	2-23/32	1-5/8		3-13/32
H400-TB	H400A	4	5-1/2	2-23/32	1-5/8		3-7/8
H500-TB	H500A	5	6-7/8	3-1/32	1-15/16		4-15/16
H600-TB	H600A	6	7-11/16	3-5/32	2		6

Material – Hub and Locknut: zinc or copper free aluminum
Insulating Throat: thermoplastic temp. rating 105°C, Flammability Rating: 94V-0
Sealing Ring: Nitrile (BUNA "N")

For Chrome Plated Hubs add suffix **CP** (i.e. H050CP).
Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures.
U.L. Listed and CSA Certified. CSA Certified use in hazardous locations Class I, Division 2, Class II, Groups E, F and G, Class III, Division 1, 2 and Type 4.
Chrome Plated Hubs (suffix-"CP") are rated NEMA 4X.
For Aluminum Hubs add suffix **A** (i.e. H050A).

Rigid and Intermediate Metal Conduit Fittings



T&B Grounding Hub



Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)	Dimensions (in.)				
			Dia. (in.)			D Max. Panel Thickness	E Throat Dia.
			A	B	C		
H050GR-C	H050GRA-C	1/2	17/16	19/16	7/8	3/16	19/32
H075GR-C	H075GRA-C	3/4	12-1/32	1-19/32	29/32	3/16	25/32
H100GR-C	H100GRA-C	1	2	1-13/16	1-1/16	1/4	1
H125GR-C	H125GRA-C	1-1/4	2-3/8	1-7/8	1-1/16	1/4	1-5/16
H150GR-C	H150GRA-C	1-1/2	2-3/4	1-7/8	1-1/16	1/4	1-17/32
H200GR-C	H200GRA-C	2	3-1/4	1-15/16	1-15/32	1/4	1-31/32
H250GR-C	H250GRA-C	2-1/2	3-3/4	2-9/16	1-9/16	1/4	2-13/32
H300GR-C	H300GRA-C	3	4-3/8	2-21/32	1-19/32	1/4	2-31/32
H350GR-C	H350GRA-C	3-1/2	5	2-23/32	1-5/8	1/4	3-13/32
H400GR-C	H400GRA-C	4	5-1/2	2-23/32	1-5/8	1/4	3-7/8
H500GR-C	H500GRA-C	5	6-7/8	3-1/32	1-15/16	1/4	4-15/16
H600GR-C	H600GRA-C	6	7-11/16	3-5/32	2	5/16	6

Material—Hub and Locknut: zinc or copper-free aluminum
 Insulating Throat: thermoplastic temp. rating 105°C;
 flammability rating: 94V-0
 Sealing Ring: Nitrile (BUNA "N")

For Chrome Plated Hubs add suffix **CP** (i.e. H050GRCP)

For 316 Stainless Steel Hubs add suffix **SST** (i.e. H050GRSST)

For PVC coating add suffix **PVC** (i.e. H050GRPVC-C)

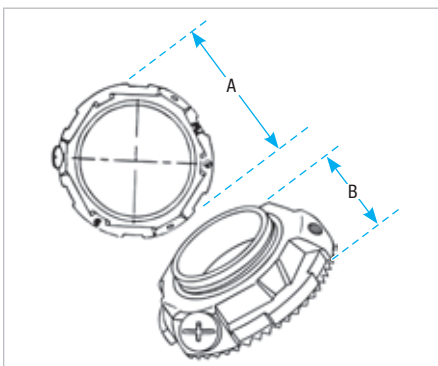
Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures

UL Listed and CSA Certified

CSA approved for use in hazardous locations: Class I, Division 2, Class II, Divisions 1 & 2, Groups E, F & G, Class III, Division 1, 2 and Type 4.



Grounding Locknut for Hubs



T&B Grounding and Bonding Locknut



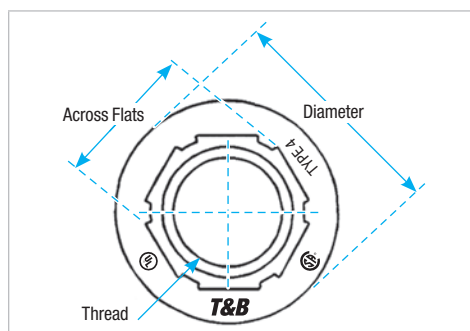
Cat. No. with Lay-In Lug	Cat. No. without Lay-In Lug	Trade Size (in.)	A Dia. (in.)	B Height (in.)	Ground Screw (in.)	Max. Conductor Size
L050GRL	L050GR-C	1/2	1-1/2	13/32	#10-32 x 1/4	#10
L075GRL	L075GR-C	3/4	1-11/16	13/32	#10-32 x 1/4	#10
L100GRL	L100GR-C	1	2	13/32	#10-32 x 1/4	#10
L125GRL	L125GR-C	1-1/4	2-3/8	15/32	1/4-20 x 1/4	#10
L150GRL	L150GR-C	1-1/2	2-3/4	15/32	1/4-20 x 5/16	#8
L200GRL	L200GR-C	2	3-1/4	15/32	1/4-20 x 5/16	#8
L250GRL	L250GR-C	2-1/2	3-3/4	11/16	1/4-20 x 5/16	#6
L300GRL	L300GR-C	3	4-3/8	23/32	1/4-20 x 5/16	#6
L350GRL	L350GR-C	3-1/2	5	23/32	1/4-20 x 5/16	#6
L400GRL	L400GR-C	4	5-1/2	23/32	1/4-20 x 5/16	#4

Material — Locknut: zinc or copper-free aluminum
 For Aluminum Locknuts add suffix **A**. (i.e. L050GRA-C)
 For Chrome Plated Locknuts add suffix **CP**. (i.e. L050GRCP)
 For 316 Stainless Steel Locknuts add suffix **SST**. (i.e. L050GRSST).



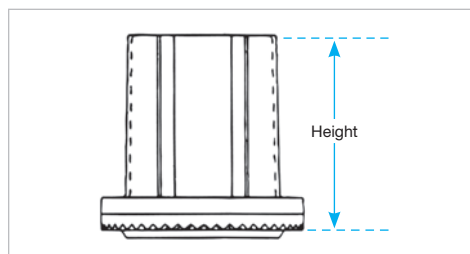
Rigid and Intermediate Metal Conduit Fittings

T&B Bulkhead Fittings



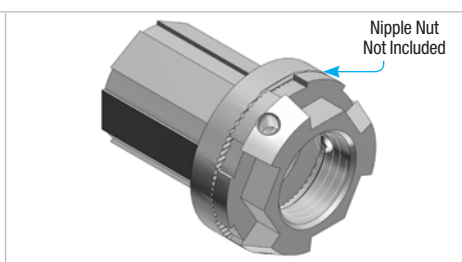
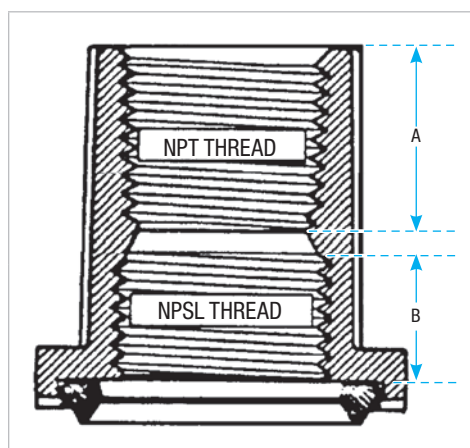
Bulkhead Fitting

Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)
H050BHD	H050BHDA	1/2
H075BHD	H075BHDA	3/4
H100BHD	H100BHDA	1
H125BHD	H125BHDA	1-1/4
H150BHD	H150BHDA	1-1/2
H200BHD	H200BHDA	2
H250BHD	H250BHDA	2-1/2
H300BHD	H300BHDA	3
H350BHD	H350BHDA	3-1/2
H400BHD	H400BHDA	4
H500BHD	H500BHDA	5
H600BHD	H600BHDA	6



Thru Bulkhead Fitting

Cat. No. Zinc	Cat. No. Aluminum	Size (in.)
H050TBF	H050TBFA	1/2
H075TBF	H075TBFA	3/4
H100TBF	H100TBFA	1
H125TBF	H125TBFA	1-1/4
H150TBF	H150TBFA	1-1/2
H200TBF	H200TBFA	2



Thru Bulkhead Hub

Cat. No. Zinc	Cat. No. Aluminum	Size (in.)
H050TBH	H050TBHA	1/2
H075TBH	H075TBHA	3/4
H100TBH	H100TBHA	1
H125TBH	H125TBHA	1-1/4
H150TBH	H150TBHA	1-1/2
H200TBH	H200TBHA	2

Trade Size (in.)	Thread (in.)	Height (in.)	Diameter (in.)	Across Flats (in.)	A (in.)	B (in.)
1/2	1/2-14	1-13/32	1-7/16	1	3/4	1/2
3/4	3/4-14	1-15/32	1-11/16	1-1/4	25/32	17/32
1	1-11-1/2	1-11/16	2	1-17/32	29/32	19/32
1/4	1-1/4-11-1/2	1-25/32	2-3/8	1-27/32	29/32	21/32
1-1/2	1-1/2-11-1/2	1-13/16	2-3/4	1-1/8	29/32	21/32
2	2-1-1/2	1-27/32	3-1/4	2-5/8	15/16	21/32
2-1/2	2-1/2-8	29/32	3-3/4	3-1/8	17/32	7/8
3	3-8	2-9/16	4-3/8	3-25/32	15/16	29/32
3-1/2	3-1/2-8	2-9/16	5	4-9/32	1-3/8	7/8
4	4-8	2-9/16	5-1/2	4-27/32	1-3/8	7/8
5	5-8	2-23/32	6-5/8	5-29/32	1-15/32	7/8
6	6-8	3	7-11/16	7-1/32	1-1/2	31/32

Material— Hub, Body and Locknut: zinc or copper-free aluminum
 Insulating Throat: thermoplastic temp. rating 105°C; Flammability rating: 94V-0
 Sealing Ring: Nitrile (BUNA "N")
 For Chrome Plated Bulkhead add suffix **CP**

Rigid and Intermediate Metal Conduit Fittings

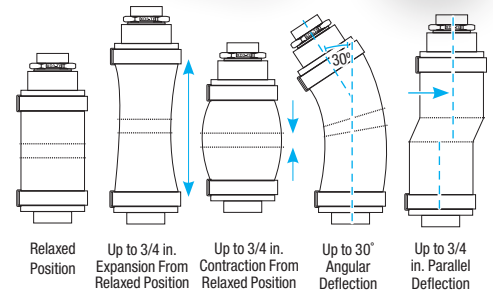
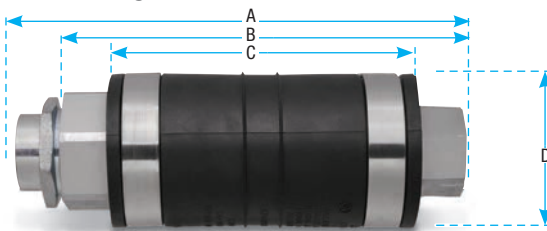
T&B XD Expansion/Deflection Coupling for Rigid Conduit

Watertight, flexible connections support movement and thermal expansion

Use the XD Expansion/Deflection Coupling to join two conduit runs in applications where movement in any direction is required. The coupling provides a flexible, watertight connection, accommodating axial or parallel movement of up to 3/4 in. and angular movement of up to 30° from normal position. While similar fittings exist on the market today, this new and enhanced XD Expansion/Deflection Coupling ships complete with an Erickson® conduit union to significantly reduce installation time and effort and includes a stainless steel inner sleeve for extreme durability, protection and easier wire pulling.

The hubs are zinc-plated and then coated with aluminum acrylic paint for dual-layer corrosion protection. In addition, the copper ground mounting plates and internal grounding bonding jumper are entirely enclosed inside the coupling for added security against vandalism and theft.

- Accommodates axial expansion/contraction up to 3/4 in., parallel deflection up to 3/4 in. and angular misalignment up to 30°
- Suitable for use indoors, outdoors, direct buried or embedded in concrete
- Watertight, flexible neoprene outer jacket, zinc-plated and acrylic-painted hubs and stainless steel tamper-proof straps ensure superior corrosion resistance — ideal for use in harsh environments
- Copper ground mounting plates and internal grounding bonding jumper both entirely enclosed to safeguard against theft
- Includes an Erickson® conduit union for faster, easier installation to reduce labor costs
- Durable stainless steel inner sleeve provides a constant, smooth inner diameter in any position to ease wire pulling and protect wire insulation from damage
- NPT threaded hubs fit standard threaded rigid metal conduit
- Can also be used with rigid PVC conduit with the use of standard adapters (not supplied)

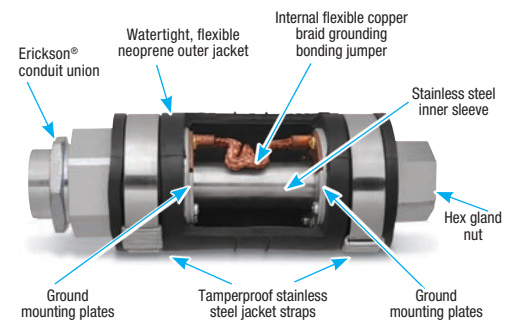


Standard Material/Finish

- Hub** Ductile cast iron, zinc-plated and aluminum acrylic painted
- Inner Sleeve** Stainless Steel
- Internal Grounding Bonding Jumper** Flexible copper braid
- Ground Mounting Plates** Copper
- Hub Rings** Zinc-plated steel
- Outer Jacket** Molded neoprene (natural black)
- Jacket Straps** Stainless Steel



Cat. No.	Hub Size (in.)	Dimensions (in.)			
		A	B	C	D
XD3-TB	1	9-13/16	8-15/32	6-7/16	3-11/32
XD4-TB	1-1/4	9-3/16	8-3/8	6-7/8	3-7/8
XD5-TB	1-1/2	9-1/4	8-7/32	6-3/4	4-5/32
XD6-TB	2	9-3/4	8-21/32	7-1/4	4-11/16
XD7-TB	2-1/2	11-3/4	11-3/8	8-1/2	4-7/8
XD8-TB	3	10-1/2	9-21/32	7-21/32	5-15/16
XD9-TB	3-1/2	10-9/16	9-3/4	7-3/4	6-5/8
XD010-TB	4	13-3/16	11-27/32	8-7/8	7-9/32
XD012-TB	5	14	12-15/16	11	8-9/32
XD014-TB	6	14-5/16	13-3/8	11-3/8	9-19/32



Certifications/Compliances

- CSA Certified to C22.2 and UL Listed to UL 514B No. 18 Suitable for Wet Locations (hub sizes 1 in.–2-1/2 in.)
- Watertight
- NEC Article 250.98 compliant

Rigid and Intermediate Metal Conduit Fittings

T&B XJG Conduit Expansion Couplings for Rigid Conduit

Easy to Install — Save Time and Money on the Job
No Disassembly Required!

Suggested Specifications for expansion fittings for rigid steel or Intermediate Metal Conduit

Used where:

- Raceways require expansion fittings to compensate for thermal expansion and contraction.
- Expansion fittings and telescoping sections of metal raceway must be made electrically continuous by bonding jumpers or other means

- Fitting will be constructed from cast iron with exterior and interior zinc plating for corrosion protection
- The fitting shall be constructed so that disassembly is not required during installation
- Fitting shall be raintight after installation
- The fitting shall have an internal bonding jumper constructed of a copper braid, sized to meet UL fault current test requirements and comply with bonding requirements — CEC article 10-612 and 10-614
- External bonding jumper shall not be required to comply with CEC requirements
- Accepted Manufacturer: Thomas & Betts — XJG-TB Series

Standard Material/Finish

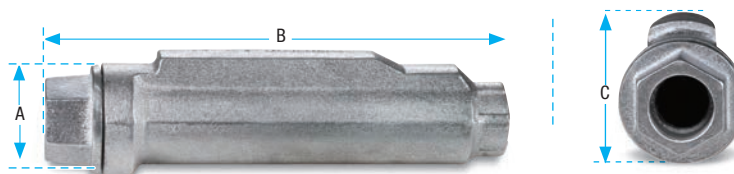
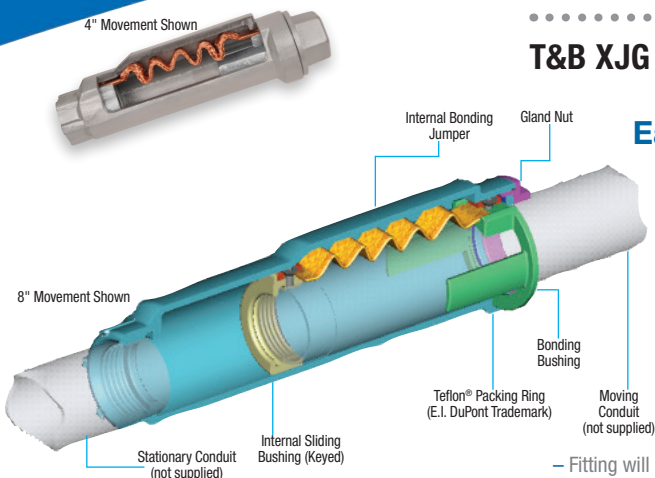
Body Malleable or Ductile Iron,
available PVC Coated

Internal Bonding Jumper Copper Braid

Exterior and Interior Finish Zinc plating, aluminum acrylic paint

Packing PTFE/Synthetic fiber Material
(Teflon® Coated)

Teflon® is a trademark of DuPont.



Cat. No.	Size (in.)	Movement (in.)	Dimensions (in.)		
			A	B	C
XJG24-TB	3/4	4	2.43	10.00	2.75
XJG28-TB	3/4	8	2.43	14.00	2.75
XJG34-TB	1	4	2.67	10.00	2.99
XJG38-TB	1	8	2.67	14.00	2.99
XJG44-TB	1-1/4	4	3.36	10.56	3.68
XJG48-TB	1-1/4	8	3.36	14.56	3.68
XJG54-TB	1-1/2	4	3.36	10.56	3.68
XJG58-TB	1-1/2	8	3.36	14.56	3.68
XJG64-TB	2	4	3.86	11.25	4.18
XJG68-TB	2	8	3.86	15.25	4.18
XJG74-TB	2-1/2	4	4.96	12.12	5.25
XJG78-TB	2-1/2	8	4.96	16.12	5.25
XJG84-TB	3	4	4.96	12.12	5.25
XJG88-TB	3	8	4.96	16.12	5.25
XJG94-TB	3-1/2	4	6.37	12.87	6.75
XJG98-TB	3-1/2	8	6.37	16.87	6.75
XJG104-TB	4	4	6.37	12.87	6.75
XJG108-TB	4	8	6.37	16.87	6.75
XJG1208-TB	5	8	7.99	18.87	8.56

Also available in PVC Ocal™ coating and for EMT.

Rigid and Intermediate Metal Conduit Fittings

T&B XJG-EMT Conduit Expansion Couplings for EMT

Features

- Fast and easy installation — no disassembly required
- No external grounding strap needed — internal bonding jumper is protected from tampering and the environment

Standard Material/Finish

Body Malleable or ductile iron

Internal

Bonding Jumper Tinned copper braid

Exterior and

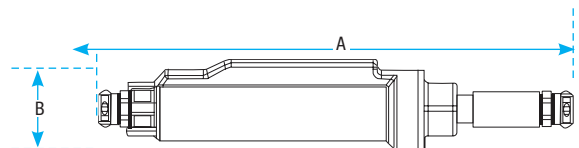
Interior Finish Zinc plating, aluminum acrylic paint

Packing PTFE/Synthetic fiber material

Certifications/Compliances

- CSA Certified to C22.2 and UL Listed to UL 514B No. 18
Suitable for Wet Locations (hub sizes 1 in.–2-1/2 in.)
- NEC Article 250.98 compliant

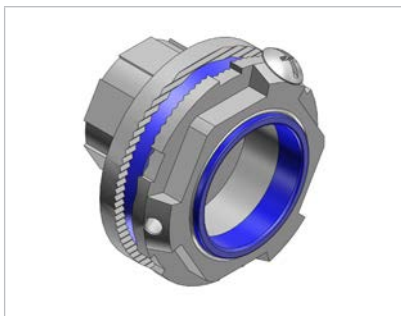
Note: XJG-EMT couplings are not raintight and are for use in dry locations only.
They are UL Listed for use with aluminum EMT.



Cat. No.	Size (in.)	Movement (in.)	A (length in.)	B (height in.)
XJG24-EMT	3/4	4	17.39	2.75
XJG28-EMT	3/4	8	21.39	2.75
XJG34-EMT	1	4	17.42	2.99
XJG38-EMT	1	8	21.42	2.99
XJG44-EMT	1-1/4	4	18.27	3.46
XJG48-EMT	1-1/4	8	22.27	3.46
XJG54-EMT	1-1/2	4	18.69	3.68
XJG58-EMT	1-1/2	8	22.69	3.68
XJG64-EMT	2	4	19.04	4.18
XJG68-EMT	2	8	23.04	4.18
XJG74-EMT	2-1/2	4	23.23	4.52
XJG78-EMT	2-1/2	8	27.23	4.52
XJG84-EMT	3	4	24.09	5.25
XJG88-EMT	3	8	28.09	5.25
XJG94-EMT	3-1/2	4	28.70	6.00
XJG98-EMT	3-1/2	8	28.70	6.00
XJG104-EMT	4	4	29.30	6.75
XJG108-EMT	4	8	29.30	6.75

Rigid and Intermediate Metal Conduit Fittings

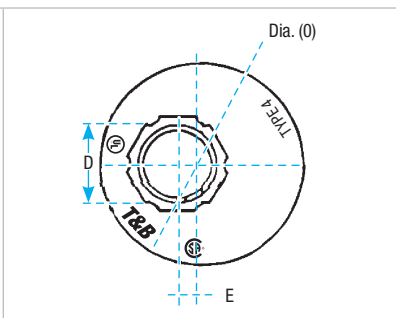
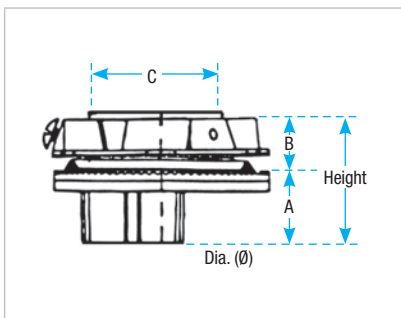
Offset Reducers



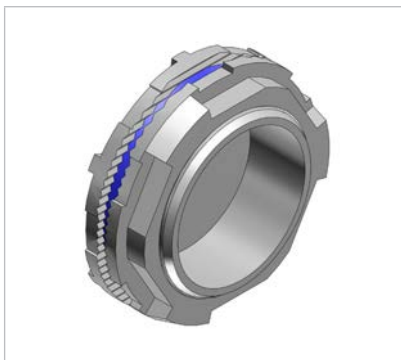
Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)	Height (in.)	Diameter (in.)	Dimensions (in.)				
					A	B	C	D	E
H150-0750RGR-TB	H150-0750RGRA-TB	1-1/2-3/4	1-21/32	2-3/4	15/16	23/32	1-29/32	1-9/32	11/32
H150-1000RGR-TB	H150-1000RGRA-TB	1-1/2-1	1-25/32	2-3/4	1-1/16	23/32	1-29/32	1-9/16	7/32
H150-1250RGR-TB	H150-1250RGRA-TB	1-1/2-1-1/4	1-25/32	2-3/4	1-1/16	23/32	1-29/32	1-7/8	1/32
H250-2000RGR-TB	H250-2000RGRA-TB	2-1/2-2	2-1/8	3-3/4	1-3/16	15/16	2-29/32	2-21/32	3/32

Material— Offset Reducer and Locknut: zinc or copper-free aluminum
 Insulating Throat: thermoplastic temp. rating 105°C; Flammability rating 94V-0
 Sealing Ring: Nitrile (BUNA "N")

For Chrome Plated Offset Reducer add suffix **CP**. (i.e. H150-1250RGRCP-TB)

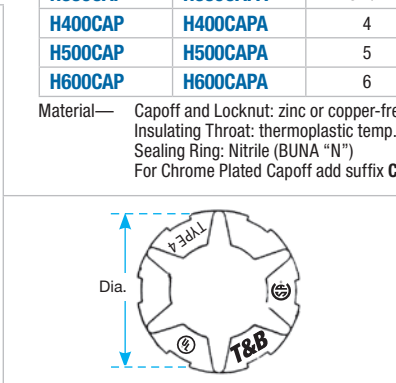
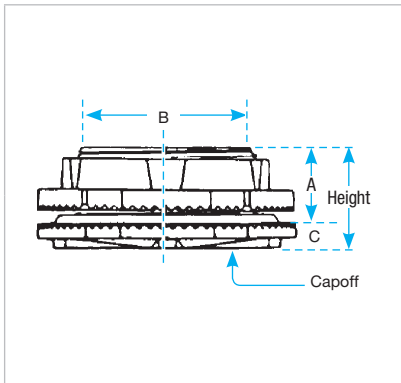


Capoffs



Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)	Height (in.)	Diameter (in.)	Dimensions (in.)		
					A	B	C
H050CAP	H050CAPA	1/2	1-13/32	1-7/16	19/32	27/32	3/16
H075CAP	H075CAPA	3/4	1-15/32	1-11/16	19/32	1-1/16	3/16
H100CAP	H100CAPA	1	1-11/16	2	11/16	1-5/16	1/4
H125CAP	H125CAPA	1-1/4	1-25/32	2-3/8	23/32	1-21/32	1/4
H150CAP	H150CAPA	1-1/2	1-13/16	2-3/4	23/32	1-29/32	1/4
H200CAP	H200CAPA	2	1-27/32	3-1/4	23/32	2-3/8	1/4
H250CAP	H250CAPA	2-1/2	2-9/32	3-3/4	7/8	2-29/32	1/4
H300CAP	H300CAPA	3	2-9/16	4-3/8	7/8	3-1/32	11/32
H350CAP	H350CAPA	3-1/2	2-9/16	5	29/32	4-1/32	11/32
H400CAP	H400CAPA	4	2-9/16	5-1/2	29/32	4-1/2	11/32
H500CAP	H500CAPA	5	2-23/32	6-5/8	29/32	5-9/16	11/32
H600CAP	H600CAPA	6	3	7-5/8	31/32	6-5/8	11/32

Material— Capoff and Locknut: zinc or copper-free aluminum
 Insulating Throat: thermoplastic temp. rating 105°C; flammability rating 94V-0
 Sealing Ring: Nitrile (BUNA "N")
 For Chrome Plated Capoff add suffix **CP**. (i.e. H050CAPCP)



Rigid and Intermediate Metal Conduit Fittings

Threadless Fittings/Couplings for Threadless Rigid Metal Conduit and Intermediate Metal Conduit

Application

- To connect and effectively bond threadless rigid metal conduit/intermediate metal conduit to a box or enclosure, or to couple ends of threadless conduit

Features

- Steel/Malleable Iron Construction
- Case hardened ring bites into conduit for high quality continuity and grip
- Nylon insulator firmly secured in place protects conductors and reduces wire pulling effort by as much as 50%; prevents thread damage in handling
- Case hardened steel locknut or malleable iron locknut designed to provide a positive bond
- Suitable for concrete tight application
- Raintight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (1/2 in. through 1-1/2 in. size) and 20,000 amps RMS (2 in. and above sizes) duration of current 3 cycles

Standard Material

Nut, Gland	1/2 in. to 1 in. Steel 1-1/4 in. to 4 in. Malleable Iron
Body	All Malleable Iron
Ring	Steel (case hardened)
Insulator	Nylon
Locknut	1/2 in. thru 2 in. Steel (hardened) 2 in. thru 4 in. Malleable Iron

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

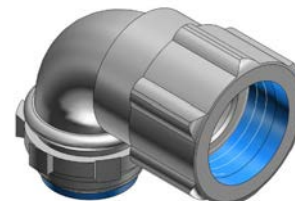
- 8123 & 8120 Series** 1/2 in. through 4 in. Size Conduit
- 8130 Series** 1/2 in. and 3/4 in. Size Conduit
- All hub threads** Straight Pipe (NPS)

Conformity

UL 514B
CSA C22.2 No. 18.3
ANSI C80.4
NFPA 70-2008 (ANSI)
NEMA FB-1
Federal Specification W-F-408
Federal Standard H-28 (Threads)



8123 Series

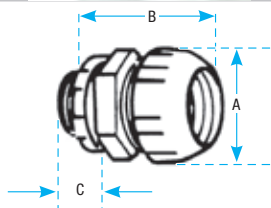


8130 Series



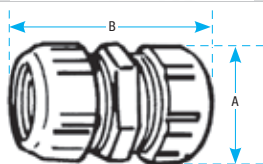
8120 Series

Rigid and Intermediate Metal Conduit Fittings



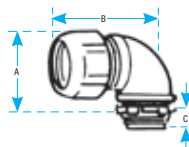
A split steel ring with diagonal serrations grips the conduit and bites into it for positive ground. Makes a permanent connection and eliminates the need for cutting a thread on the conduit. Insulation helps to guarantee continuity of service with protection of the conductor at the critical point — the fitting bushing.

Malleable iron construction.



Eliminate conduit threading. When tightened with a wrench they make a UL Listed and CSA Certified concrete-tight connection

Malleable iron construction.



Ideal for entering enclosure or conduit body at right angles. Eliminates need to thread conduit. As with straight couplings, this fitting makes a concrete-tight connection.

Malleable iron construction.

Nylon Insulated Threadless Fittings



Cat. No.	Nylon Insul.	Non-Insul.	Conduit Size (in.)	Dimensions (in.)		
				A	B	C
8123	8121		1/2	1-11/32	1-15/16	3/4
8223	8221		3/4	1-5/8	2	3/4
8323	8321		1	1-7/8	2-7/16	7/8
8423	8421		1-1/4	2-3/8	2-9/16	11/16
8523	8521		1-1/2	2-5/8	2-3/4	3/4
8623	8621		2	3-1/4	2-15/16	27/32
8723-TB	8721		2-1/2	3-15/16	3-15/16	1-1/8
8823-TB	8821		3	4-11/16	4-1/8	1-7/32
8853	8851		3-1/2	5-3/16	4-1/4	1-1/8
8973	8971		4	5-11/16	5	1-1/8

Threadless Couplings



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
8120	1/2	1-9/32	2
8220	3/4	1-19/32	2-5/16
8320	1	1-7/8	2-11/16
8420	1-1/4	2-3/8	2-13/16
8520	1-1/2	2-5/8	3-5/8
8620	2	3-1/4	3-13/16
8720	2-1/2	3-15/16	5-3/8
8820	3	4-11/16	5-1/2
8850	3-1/2	5-3/16	5-1/2
8970	4	5-11/16	5-1/2

Threadless Short Elbows – Nylon Insulated



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
8130	1/2	1-11/32	1-1/2	1/2
8131	3/4	1-5/8	1-3/4	9/16
8132	1	1-7/8	1-15/16	11/16
8134	1-1/2	2-23/32	3-1/8	13/16

Rigid and Intermediate Metal Conduit Fittings

Specifications — Set-Screw Fitting/Coupling for Threadless Rigid Metal Conduit and Intermediate Metal Conduit



8125 Series



8124 Series

Application

- To connect and effectively bond threadless rigid metal conduit or intermediate metal conduit to a box or enclosure or to couple ends of threadless conduit

Features

- Thickwall steel or malleable iron body
- Hardened hex head cup point screw to provide high quality bond
- Captive screw, will not vibrate loose
- Nylon insulated throat meets and exceeds all codes requirements for bushing:
 - (1) Prevents thinning of insulation
 - (2) Reduces installation effort
 - (3) Prevents first thread damage
- Coupling provided with positive center stop
- Suitable for concrete-tight application
- Capable of carrying ground fault currents up to 10,000 amps RMS (1/2 through 1-1/2 in. size) and 20,000 amps RMS (2 in. and above sizes)

Standard Material

Body 1/2 in. thru 2 in. Steel
2-1/2 in. thru 4 in. Malleable Iron

Locknut 1/2 in. thru 2 in. Steel (hardened)
2-1/2 in. thru 4 in. Malleable Iron

Screw Steel (hardened)

Insulator Nylon

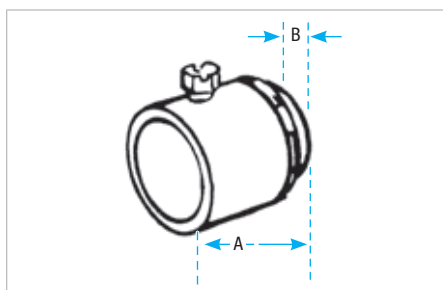
Standard Finish

Electro Zinc Plated & Chromate Coated

Conformity

UL 514B
CSA C22.2 No. 18.3
ANSI C80.4
NFPA 70-2008 (ANSI)
NEMA FB-1
Federal Specification W-F-408
Federal Standard H-28 (Threads)

Rigid and Intermediate Metal Conduit Fittings



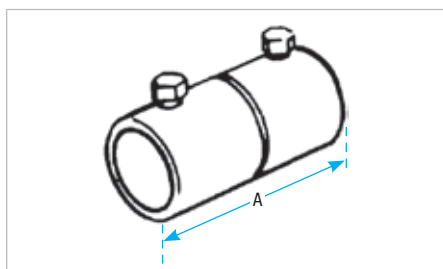
Eliminate conduit threading with these set screw fittings. Captive hex head screws tighten down onto conduit for positive holding strength and ground. The fittings are furnished with insulated throats reducing wire pulling effort by as much as 50%. Approved concrete-tight.

Insulated Set-Screw Fitting



Cat. No.	Conduit Size (in.)	Dimensions (in.)	
		A	B
8125	1/2	1-3/8	13/32
8225	3/4	1-1/2	7/16
8325	1	1-13/16	35/65
8425	1-1/4	2	5/8
8525-TB	1-1/2	2-5/16	5/8
8625	2	2-7/16	11/16
8725-TB	2-1/2	3-3/8	1
8825	3	3-7/16	1
8855	3-1/2	3-7/8	1-1/16
8975	4	4-3/16	1-1/8

Sizes 1/2 in.-2 in. made of steel. Sizes 2-1/2 in.-4 in. are malleable iron



Eliminate the need for threading conduit ends when joining rigid conduit with these set screw couplings. Captive hex head screws provide positive holding strength and ground continuity. Approved concrete-tight.

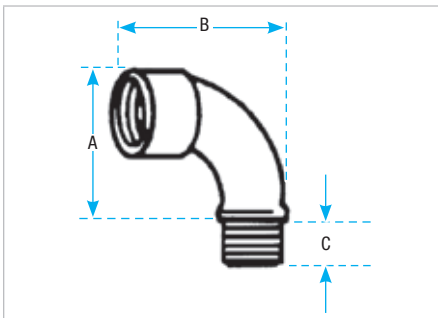
Set Screw Coupling



Cat. No.	Conduit Size (in.)	Dimensions (in.)
		A
8124	1/2	2-1/2
8224	3/4	2-11/16
8324-TB	1	2-27/32
8424	1-1/4	3
8524	1-1/2	3-3/8
8624	2	3-5/8
8724-TB	2-1/2	3-7/8
8824-TB	3	4-1/4
8974	4	5-3/8

Sizes 1/2 in.-2 in. made of steel; sizes 2-1/2 in.-4 in. are malleable iron

Rigid and Intermediate Metal Conduit Fittings

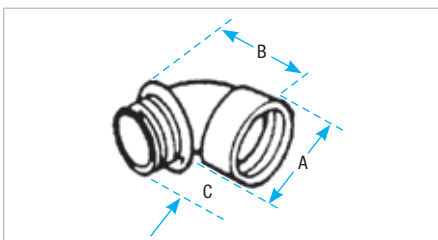


The noninsulated elbow has smoothly rounded shoulders to protect conductor insulation
Malleable iron

Bushed Elbows



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
460TB	1/2	1-13/16	1-1/8	5/8
461TB	3/4	2-1/4	1-1/2	9/16
462	1	2-23/32	1-23/32	11/16
463	1-1/4	3-1/8	2-1/16	25/32



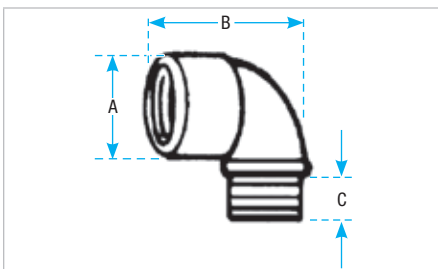
The integral insulation of the insulated elbow is a guarantee that the bushing of every fitting will be smooth
Malleable iron

Short Elbows – Nylon Insulated



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
4290	1/2	1-7/32	1-1/4	1/2
4291	3/4	1-7/16	1-5/16	9/16
4292	1	1-23/32	1-9/16	11/16
4293	1-1/4	2-7/32	2-1/16	13/16
4294	1-1/2	2-15/32	2-3/16	13/16

Not UL Listed



When an insulated elbow is not desired, the non-insulated short elbow should be used
Malleable iron

Short Elbows



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
4250	1/2	1-5/16	1-1/4	7/16
4251	3/4	1-17/32	1-5/16	1/2
4252	1	1-13/16	1-9/16	5/8
4253	1-1/4	2-9/32	2-1/16	11/16
4254	1-1/2	2-9/16	2-3/16	11/16
4255	2	3-3/32	2-9/16	11/16

Rigid and Intermediate Metal Conduit Fittings

Threaded Couplings (ERICKSON®) Couplings for Threaded Rigid Metal Conduit and Intermediate Metal Conduit



674 Series
675AL Series

Application

- To couple and effectively bond threaded ends of rigid metal conduit/intermediate metal conduit where neither length of conduit can be rotated

Features

- Malleable Iron/Steel/Copper-free Aluminum Construction
- Free fitting threads ensure easy assembly.
- Permits conduit coupling without rotating either conduit
- Provides rigid in-line coupling with high quality grounding; will not loosen under vibration
- Suitable for concrete-tight application.
- Capable of carrying ground fault currents up to 10,000 amps RMS (1/2 in. through 1-1/2 in. size) and up to 20,000 amps RMS (2 in. and above) (duration of fault current 3 cycles) (674 Series tested)

Standard Material

674 Series

Bushing and Body Malleable Iron
Ring Steel up to 2 in. or Malleable Iron

675AL Series

Bushing and Body Aluminum
Ring Aluminum

Standard Finish

674 Series: Electro Zinc Plated & Chromate Coated

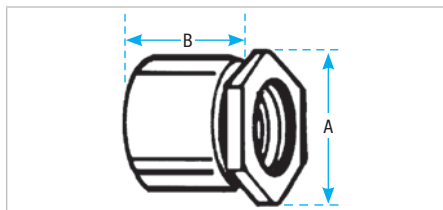
675AL Series: Degreased

Range

- 674 Series:** 3/8 in. thru 6 in. Conduit
- 675AL Series:** 1/2 in. thru 6 in. Conduit
- All straight pipe threads (NPS)

Conformity

UL 514B
CSA C22.2 No. 18.3
NEMA FB1
ANSI C80.4
NFPA 70-2008 (ANSI)
Federal Specification W-F-408
Federal Standard H-28 (Threads)



With an Erickson® coupling, a conduit run may be completed when neither conduit can be turned. A conduit run may also be broken without taking down the whole run. Conduit joined with Erickson® Couplings is rigid and in line and vibration will not loosen the connections.

ERICKSON® Couplings



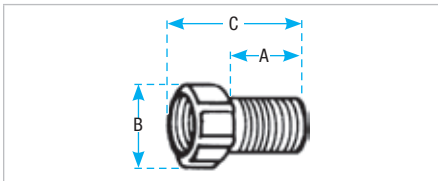
Cat. No.	Alum.*	Size (in.)	Dimensions (in.)	
			A	B
674	—	3/8	1-1/8	1-1/8
675	675AL	1/2	1-15/32	1-1/4
676	676AL	3/4	1-9/16	1-13/32
677	677AL	1	1-29/32	1-5/8
678	678AL	1-1/4	2-3/8	1-13/16
679	679AL	1-1/2	2-5/8	1-31/32
680-TB	680AL	2	3-7/32	2-7/32
681	681AL	2-1/2	3-3/32	2-11/16
682	682AL	3	4-7/16	2-29/32
683	683AL	3-1/2	5	3
684	684AL	4	5-1/2	3-3/16
685	685AL†	4-1/2	6-1/4	3-15/32
686	686AL	5	6-25/32	3-3/4
687	687AL	6	8	4-1/32

* Copper-free Aluminum (less than 0.4% Copper)

UL Listed and CSA Certified concrete-tight

† Not CSA Certified

Rigid and Intermediate Metal Conduit Fittings

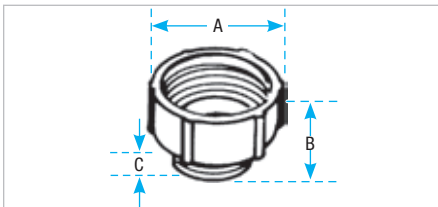
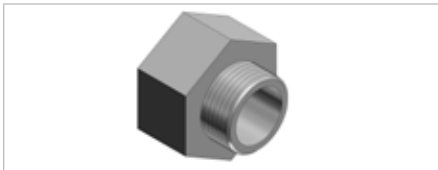


Ideal when longer thread length is needed. Will combine with any fitting having a male thread. Male thread of panel fitting extension is 1 in. long.
Malleable iron

Panel Fitting Extensions



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
1440	1/2	1-1/4	1-3/16	1-7/8
1441	3/4	1-1/4	1-13/32	1-15/16
1442	1	1-3/16	1-21/32	1-15/16
1443	1-1/4	1-1/4	2-1/8	2

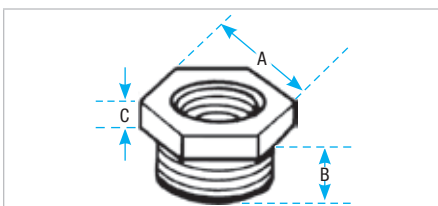
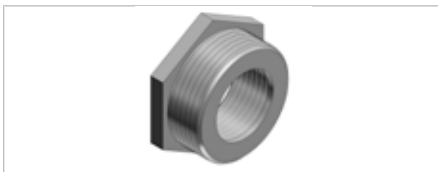


Adapt an outlet hole to the next larger size of conduit. Rough ends of conduit carefully covered by built-in bushing.
Malleable iron

Male Enlargers



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
1245	1/2	1-1/4	1-3/16	1-7/8
1246	3/4	1-1/4	1-13/32	1-15/16
1244	1	1-3/16	1-21/32	1-15/16
1247	1-1/4	1-1/4	2-1/8	2



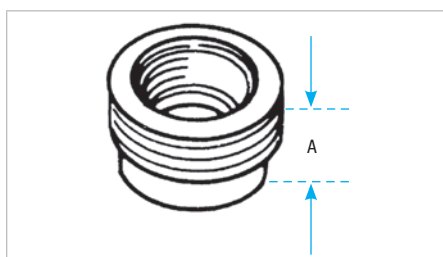
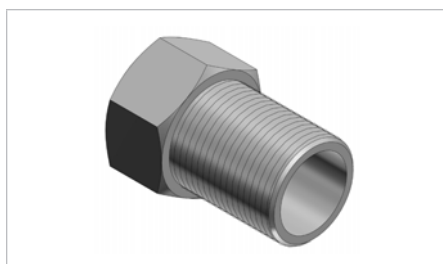
Adapt an outlet hole to the next larger size of conduit. Rough ends of conduit carefully covered by built-in bushing.
Malleable iron

Female Reducers



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
1250-TB	3/4 to 1/2	1-1/8	5/8	3/16
1261	1 to 1/2	1-7/16	1-7/16	3/16
1251	1 to 3/4	1-3/8	11/16	3/16
1262	1-1/4 to 1/2	1-13/16	21/32	3/16
1263	1-1/4 to 3/4	1-13/16	23/32	3/16
1252	1-1/4 to 1	1-3/4	25/32	7/32
1253	1-1/2 to 1-1/4	2	13/16	1/4
1254	2 to 1-1/2	2-3/8	1-3/16	9/32
1255	2-1/2 to 2	3	1-1/4	3/8
1256	3 to 2-1/2	3-5/8	1-1/2	1/2
1257	3-1/2 to 3	4-1/8	1-9/16	1/2
1258	4 to 3-1/2	4-5/8	1-3/16	1/2

Rigid and Intermediate Metal Conduit Fittings

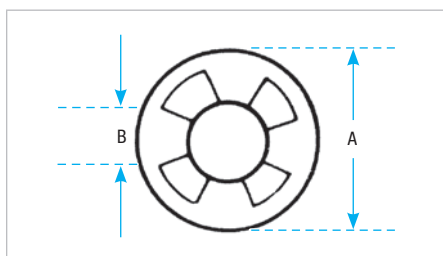
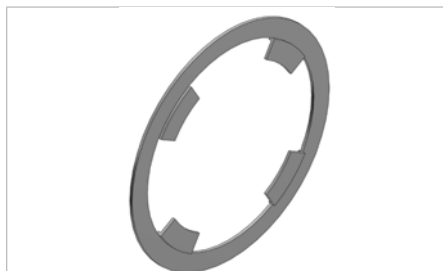


For reducing the threaded opening in conduit bodies or any female threaded fitting. Smooth, built-in bushing completely covers rough ends of conduit. Iron or steel construction. Steel from 600-TB thru 606-TB, also 614 & 615.

Threaded Reducers



Cat. No.		Size (in.)	Dimensions (in.)	
Stl. or M.I.	Alum.		A	
600-TB	600AL-TB	1/2 to 3/8	5/8	
601-TB	601AL-TB	3/4 to 1/2	19/32	
602-TB	602AL-TB	1 to 1/2	19/32	
603-TB	603AL-TB	1 to 3/4	19/32	
604-TB	604AL-TB	1-1/4 to 1/2	19/32	
605-TB	605AL	1-1/4 to 3/4	19/32	
606-TB	606AL	1-1/4 to 1	11/16	
607	607AL	1-1/2 to 1/2	15/16	
608	608AL	1-1/2 to 3/4	15/16	
609	609AL	1-1/2 to 1	1-3/32	
610	610AL	1-1/2 to 1-1/4	27/32	
611-TB	611AL	2 to 1/2	23/32	
612	612AL	2 to 3/4	1-1/16	
613	613AL	2 to 1	1-1/16	
614-TB	614AL	2 to 1-1/4	1-1/16	
615-TB	615AL	2 to 1-1/2	27/32	



Washers reduce knockout hole in outlet box. Newly designed of galvanized steel. These washers, used in pairs, interlock and form a rib which centers the washers and conduit in the knockout.

Reducing Washers



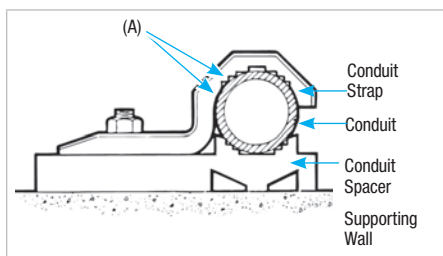
Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
3700	3/4 to 3/8	1-3/8	45/64
3701	3/4 to 1/2		7/8
3702	1 to 3/8		45/64
3703	1 to 1/2	1-5/8	7/8
3704	1 to 3/4		1-3/32
3705-TB	1-1/4 to 3/8		45/64
3706	1-1/4 to 1/2	2	7/8
3707	1-1/4 to 3/4		1-3/32
3708	1-1/4 to 1		1-23/64
3709	1-1/2 to 3/8	2-1/4	45/64
3710	1-1/2 to 1/2		7/8
3711	1-1/2 to 3/4		1-3/32
3712	1-1/2 to 1	2-3/4	1-23/64
3713	1-1/2 to 1-1/4		1-23/32
3714	2 to 1/2		7/8
3715-TB	2 to 3/4	2-3/4	1-3/32
3716	2 to 1		1-23/64
3717	2 to 1-1/4		1-23/32
3718	2 to 1-1/2		1-31/32

Rigid and Intermediate Metal Conduit Fittings

Conduit Straps for Threaded Rigid Metal Conduit and Intermediate Metal Conduit



**1275 Series
1276AL Series**



Application

- To support and securely fasten rigid metal conduit and intermediate metal to the supporting surface

Features

- Rugged malleable iron/copper-free aluminum construction—snugly fits on the conduit
- Designed to prevent accumulation of moisture and start of corrosion on vertical run of conduit (A)

Standard Material

1275 Series

Malleable Iron

1276AL Series

All copper-free aluminum

Standard Finish

1275 Series

Hot Dipped Galvanized

1276AL Series

As Cast

Range

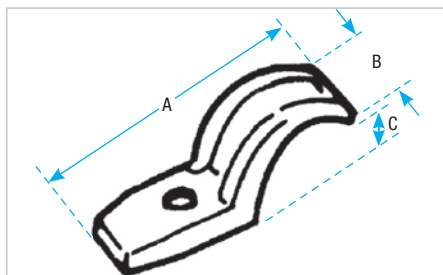
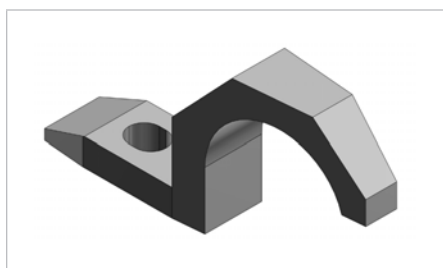
- 1275 Series**
3/8 in. through 6 in. conduit
- 1276AL Series**
1/2 in. through 6 in. conduit

Conformity

CSA C22.2 No. 18.3

ANSI C80.4

NFPA 70-2008 (ANSI)



Designed to fit each size of conduit snugly. High reinforcing ribs on each side increase strength, reduce weight. Hot-dipped galvanized finish.

Pipe Straps – Malleable Iron or Aluminum



Cat. No.	Mal. Iron	Alum.	Size (in.)	Dimensions (in.)			Screw Size (in.)
				A	B	C	
1275†		1275AL	3/8	1-15/16	19/32	1/4	1/4
1276†		1276AL†	1/2	2-11/32	23/32	1/2	
1277†		1277AL†	3/4	2-11/16	21/32	5/8	
1278†		1278AL†	1	3-3/32	11/16	13/16	
1279†		1279AL†	1-1/4	4-1/8	13/16	29/32	5/16
1280†		1280AL	1-1/2	4-1/2	15/16	1-17/32	3/8
1281		1281AL	2	5-3/16	1-1/8	1-1/4	7/16
1282*		1282AL	2-1/2	5-15/16	1-1/2	1-3/4	1/2
1283*		1283AL	3	6-11/16	1-5/8	2-3/16	
1284		1284AL	3-1/2	7-19/32	1-3/4	2-3/4	
1285*		1285AL	4	8-5/16	1-7/8	2-13/16	
1286**		1286AL**	4-1/2	9-3/16	1-15/16	2-15/16	5/8
1287		1287AL	5	9-15/16	2	3-1/4	
1288		1288AL	6	11-1/2	2-7/16	4-1/8	

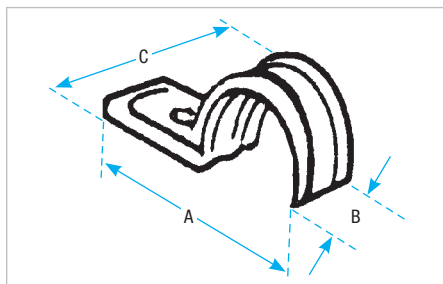
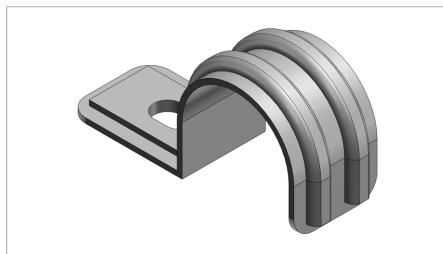
* May be used with EMT of same size

† Not snap on type

UL not applicable

** Not CSA Certified

Rigid and Intermediate Metal Conduit Fittings



Elongated bolt hole makes alignment easy, even when holes in mounting surface are off center. Snap on features. Steel.

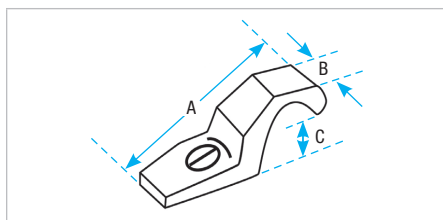
Zinc plated.

Pipe Straps – Steel



Cat. No.	Conduit Size (in.)	Dimensions (in.)			Screw Size (in.)
		A	B	C	
1210C†	3/8	1-15/32	3/4	11/16	1/4
1211C	1/2	2	3/4	15/16	
1212C	3/4	2-5/16	3/4	1"	
1213C	1	3-13/16	3/4	1-17/64	
1214TB*	1-1/4	2-31/32	1-9/16	1-9/16	3/8
1215TB*	1-1/2	3-23/32	1-13/16	1-13/16	
1216TB*	2	4-7/16	2-5/16	2-5/16	

† Not snap on type
UL not applicable
* Not CSA Certified



Malleable iron. Designed to fit each size of conduit snugly. High reinforcing ribs on each side increase strength, reduce weight.

Corrosion Resistant PVC Coated Rigid Conduit Straps



Cat. No.	Size (in.)	Bolt Size (in.)	Dimensions (in.)		
			A	B	C
1275CR	3/8	1/4	2	21/32	1/4
1276CR	1/2		2-13/32	25/32	1/2
1277CR	3/4		2-3/4	23/32	5/8
1278CR	1		3-5/32	3/4	13/16
1279CR	1-1/4	3/8	4-5/32	25/32	7/8
1280CR	1-1/2		4-9/16	1	1-7/32
1281CR	2	1/2	5-1/4	1-3/16	1-1/4

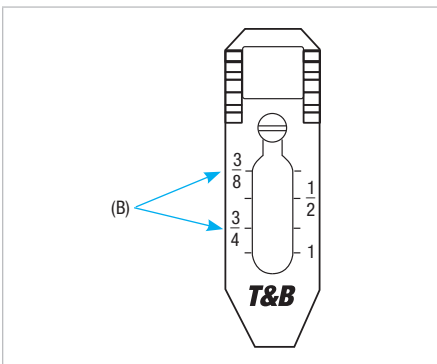
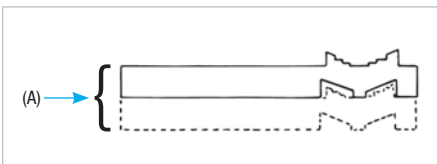
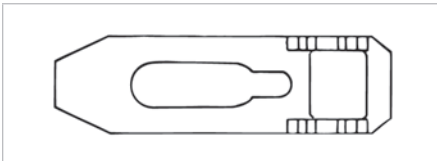
UL not applicable

Rigid and Intermediate Metal Conduit Fittings

Conduit Spacers for Rigid Metal Conduit, Intermediate Metal Conduit and Electrical Metal Tubing



1350 Series
1350AL Series



Application

- Provides mounting surface for conduit where installation requires air space between conduit and supporting surface

Features

- Prevents conduit rusting from wall condensation
- Spacers can be stacked one atop the other facilitating installation and eliminating expensive conduit off setting (A)
- Designed to cover wide range; marked with accurate size marking for proper positioning (B)

Standard Material

1350 Series

Malleable Iron

1350AL Series

Copper-free aluminum

Standard Finish

1350 Series

Hot Dipped Galvanized

1350AL Series

As Cast

Range

1/2 in. through 6 in. conduit

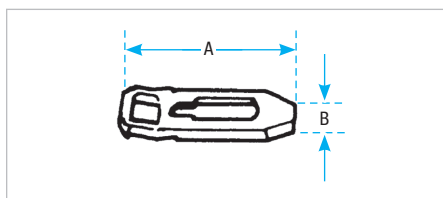
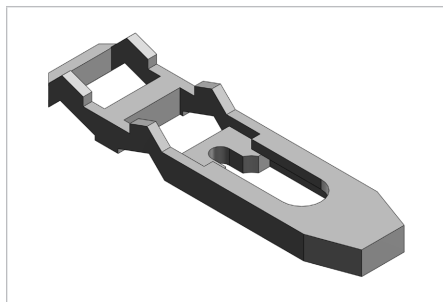
Conformity

CSA C22.2 No. 18.3

ANSI C80.4

NFPA 70-2008 (ANSI)

Rigid and Intermediate Metal Conduit Fittings



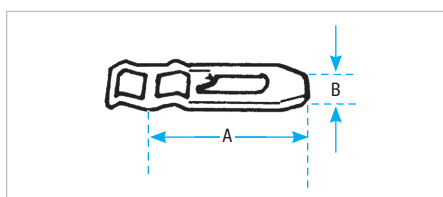
Used with T&B conduit straps to permit space between conduit and mounting surface. Eliminates need for costly offset-bending conduit and possible corrosive moisture traps when conduit is mounted directly to a surface. Hot-dipped galvanized finish, premountable and stackable to eliminate offsetting.

Pipe Spacers



Cat. No.	Mal. Iron	Alum.	Size (in.)	Screw Size	Dimensions (in.)	
					A	B
1350		1350AL	3/8, 1/2, 3/4, 1	#7	3	7/8
1351		1351AL	1-1/4-1-1/2-2	#12	5	1-3/16
1352		1352AL	2-1/2-3	#12	9-9/16	1-3/4
1353		1353AL	3-1/2-4	#14	7-9/16	2

Conforms to CEC Rule 12-012 (5)
UL not applicable



Corrosion resistant PVC coated malleable iron. Pre-mountable, stackable to eliminate offsetting. Spacers can be stacked for offsets on wall or into outlet box.

Prevents conduit rusting from wall condensation. Eliminates offsetting of conduit.

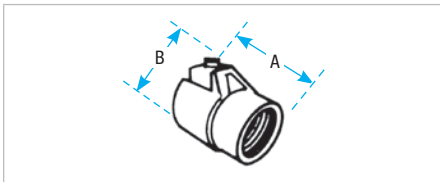
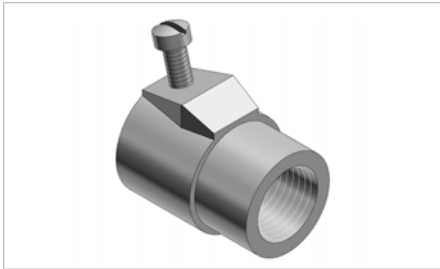
Pipe Spacers – PVC Coated



Cat. No.	Conduit Size (in.)	Screw Size	Dimensions (in.)	
			A	B
1350CR	1/2-3/4-1	#7	3	7/8
1351CR	1-1/4-1-1/2-2	#12	5	3/8
1352CR	2-1/2-3	#12	6-9/16	1-3/4
1353CR	3-1/2-4	#14	7-9/16	2

Conforms to CEC Rule 12-012 (5)
UL not applicable

Rigid and Intermediate Metal Conduit Fittings

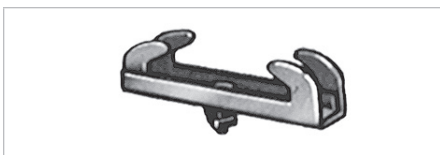


A one-piece fitting that couples armoured cable or flexible conduit to threaded rigid conduit. Tite-Bite® wedge holds conduit securely with a double grip. With a Chase® nipple, this fitting will connect flexible conduit to outlet boxes, allowing more wiring space in the box than the usual fitting. Malleable iron.

Tite-Bite® Combination Couplings Armoured Cable for Threaded Rigid



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
440	1/2	1-5/8	1-27/32
441	3/4	1-3/4	2-1/8
442	1	2	2-17/32



Includes bolts Steel

Beam Clamps Adjustable



Cat. No.	Description
700TB	Fits Flange 2-3/4 in. - 7-3/8 in.
703*	Special Bolt and 3 Nuts

* Not CSA Certified



These supports will fit any flange, tapered or straight up to 5/8 in. thick. The broad hook holds the conduit at any desired angle. Holds standard rigid conduit, EMT, or I.M.C. Malleable iron.

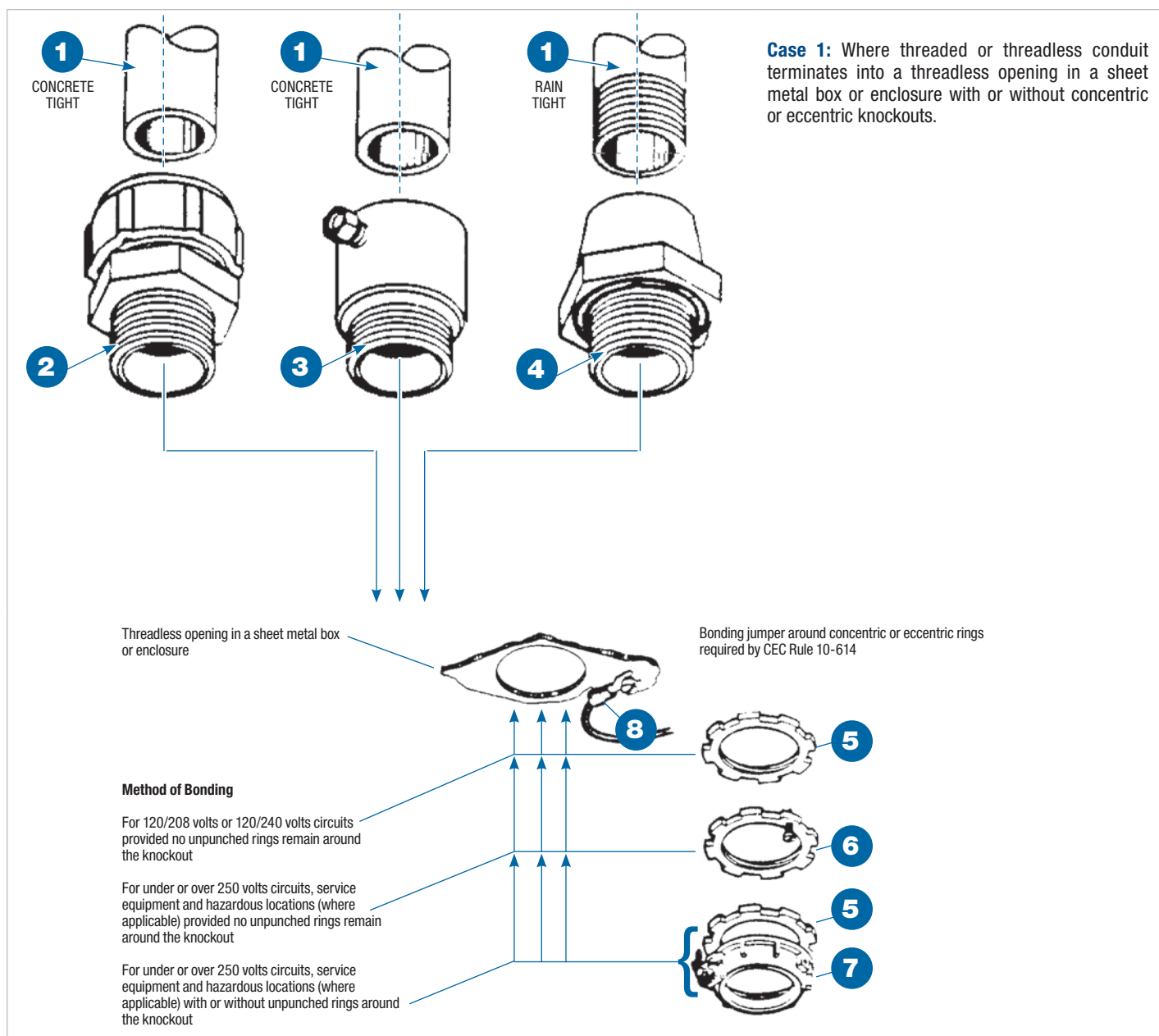
Conduit Supports



Cat. No.	Size (in.)
690TB	1/2
691TB	3/4
692TB	1
693TB	1-1/4

Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding



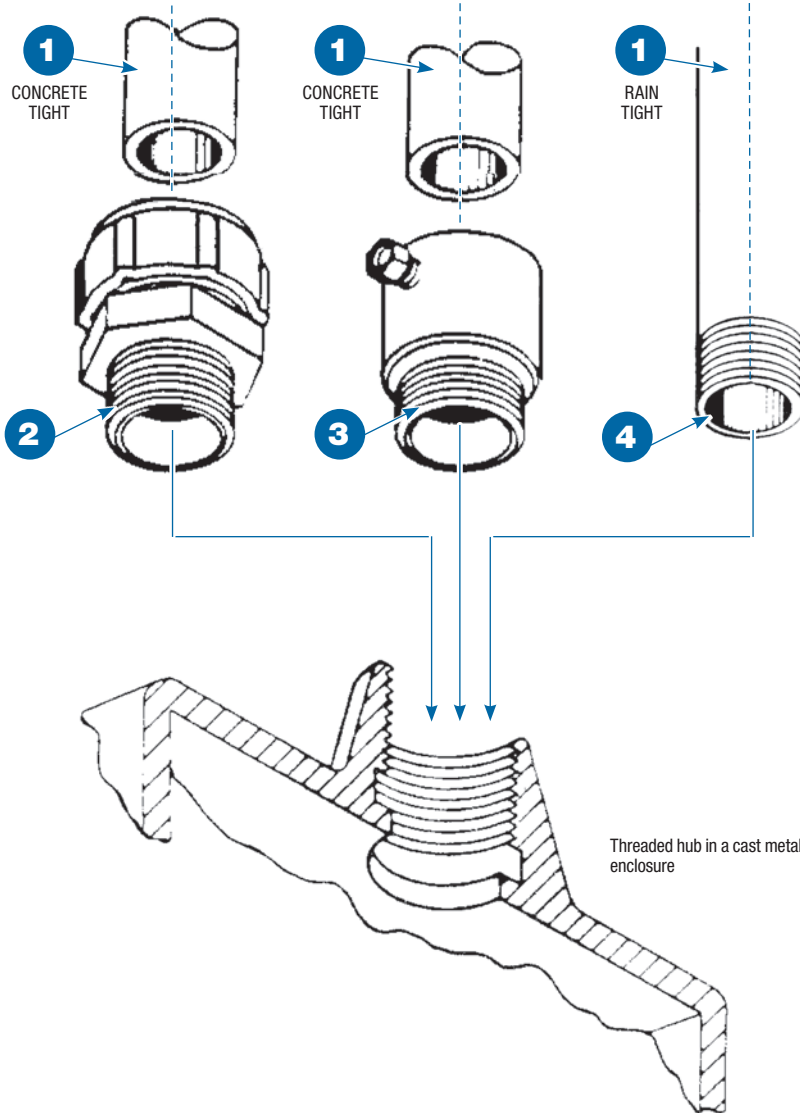
- (1) Threaded or threadless rigid metal conduit or intermediate metal conduit
- (2) T&B Series 8123 or 8124 Threadless Fittings

- (3) T&B Series 8125 Set Screw Fitting
- (4) T&B Series 370 or H050-TB Sealing Hub (Bullet® Hubs)
- (5) T&B Series 140 Locknuts

- (6) T&B Series 106 Bonding Locknut
- (7) T&B Series 3870 Bonding & Grounding Bushing
- (8) T&B Sta-Kon® or Colour-Keyed® lug

Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



Case 2: Where threaded or threadless conduit terminates into a threaded hub in a cast metal enclosure.

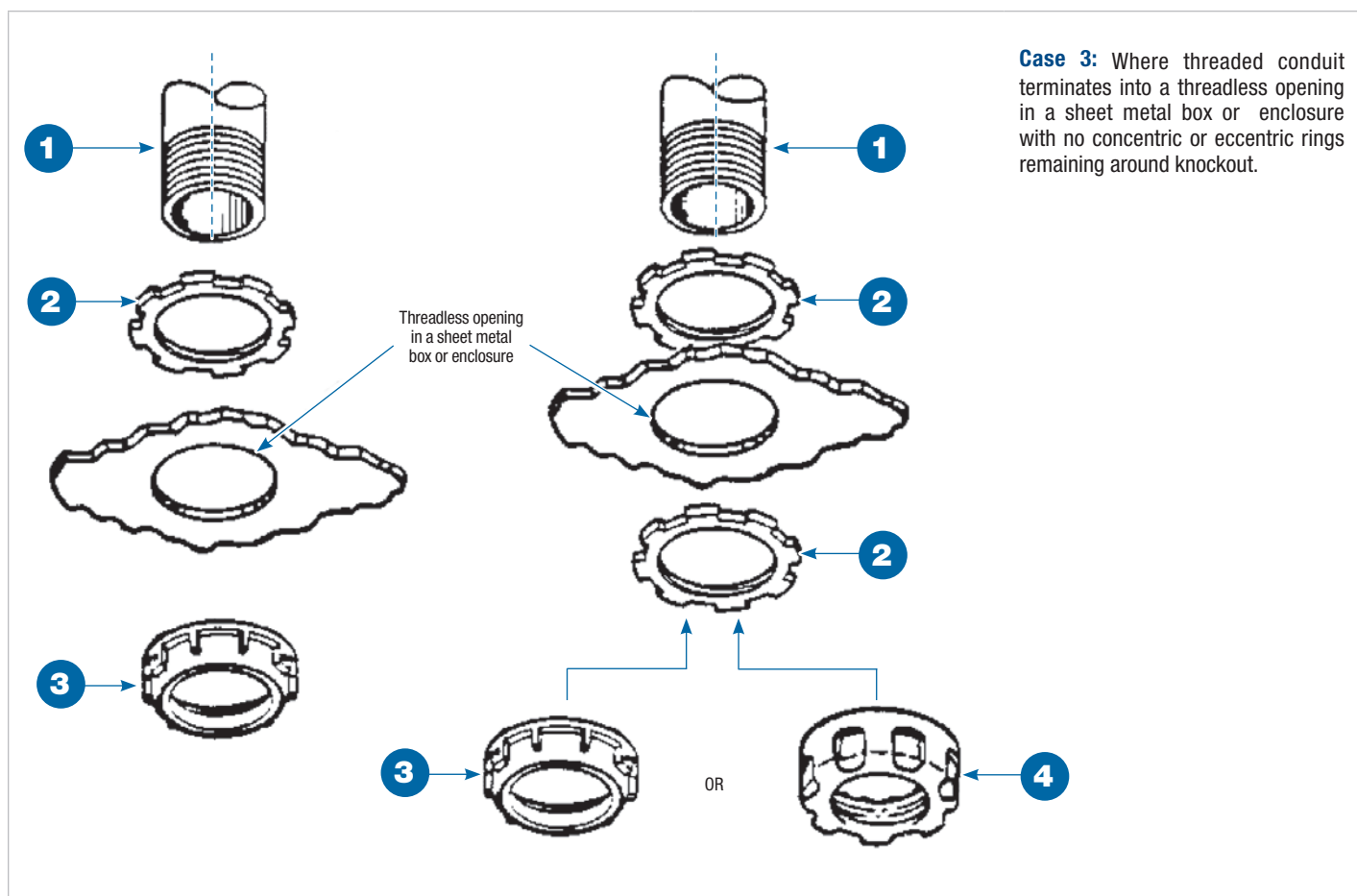
Methods of Bonding

- For
- (1) 120/208 or 120/240 volts circuits (CEC 10-610)
 - (2) Over 250 volts circuits (CEC 10-610)
 - (3) Service equipment (CEC 10-604)
 - (4) Hazardous Locations 18-074 (where applicable)
 - 18-124 (Class I, Zone 1)
 - 18-160 (Class I, Zone 2)
 - 18-218 (Class II, Division 1)
 - 18-268 (Class II, Division 2)
 - 18-316 (Class III, Division 1)
 - 18-366 (Class III, Division 2)

- (1) Threaded or threadless rigid metal conduit or intermediate metal conduit
- (2) T&B Series 8123 Threadless Fitting
- (3) T&B Series 8125 Set Screw Fitting

Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



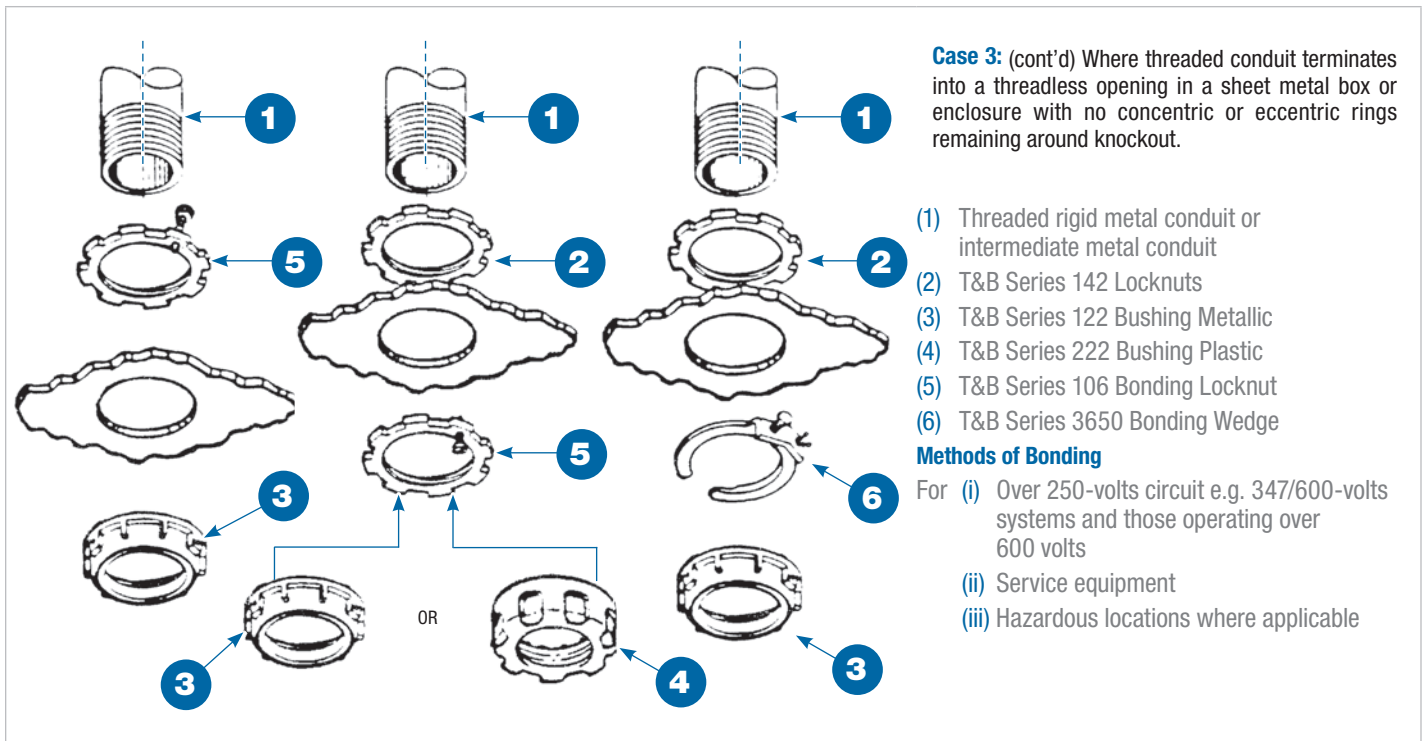
Method of bonding for 120/208 volt or 120/240 volts circuits (other than service equipment).

Method of bonding for over 250 volts circuits e.g. 600/347 volt systems and those operating over 600 volts (other than service equipment).

Note: Any of the bonding methods described for service equipment may also be used

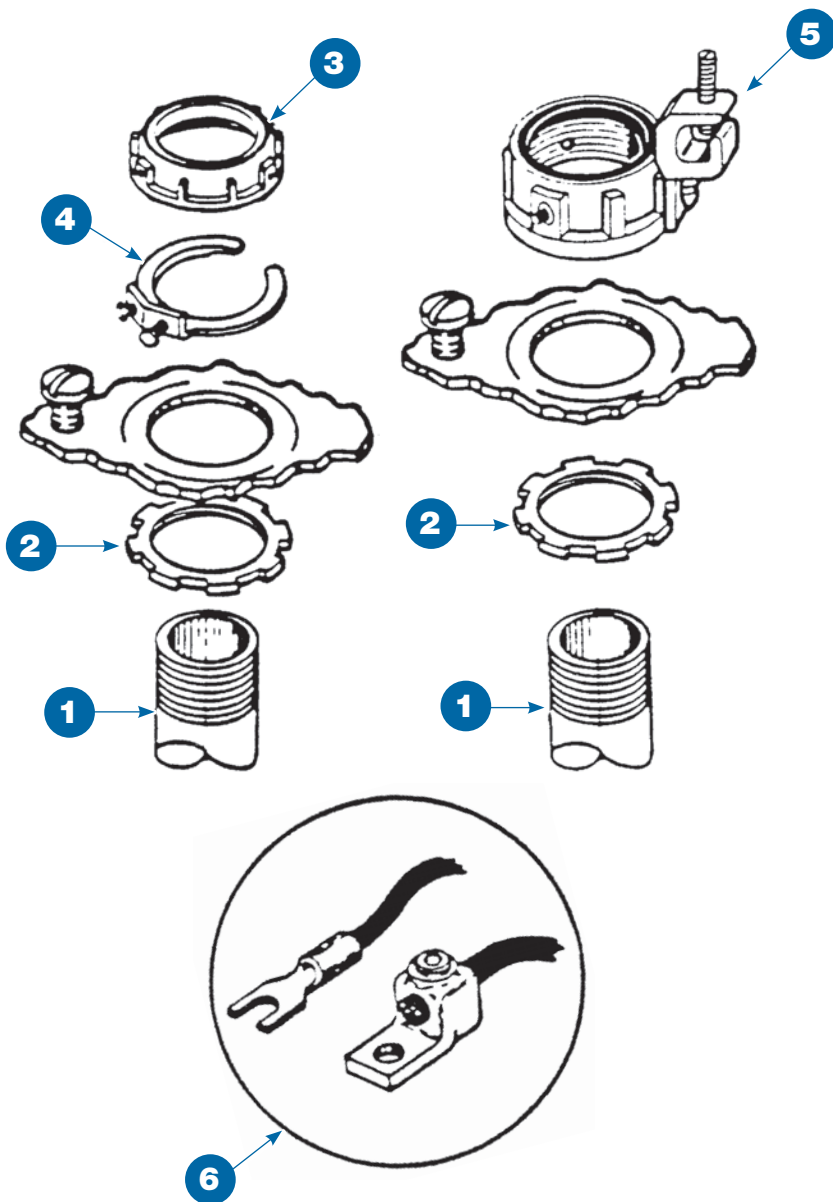
Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



Case 4: Where threaded conduit terminates into a threadless opening in a sheet metal box or enclosure with concentric or eccentric rings remaining around knockout.

Methods of bonding for under or over 250-volts, for service equipment and for hazardous locations where applicable.

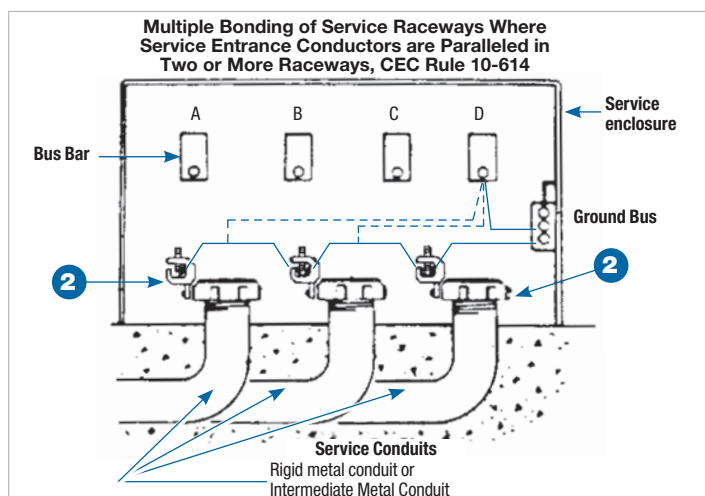
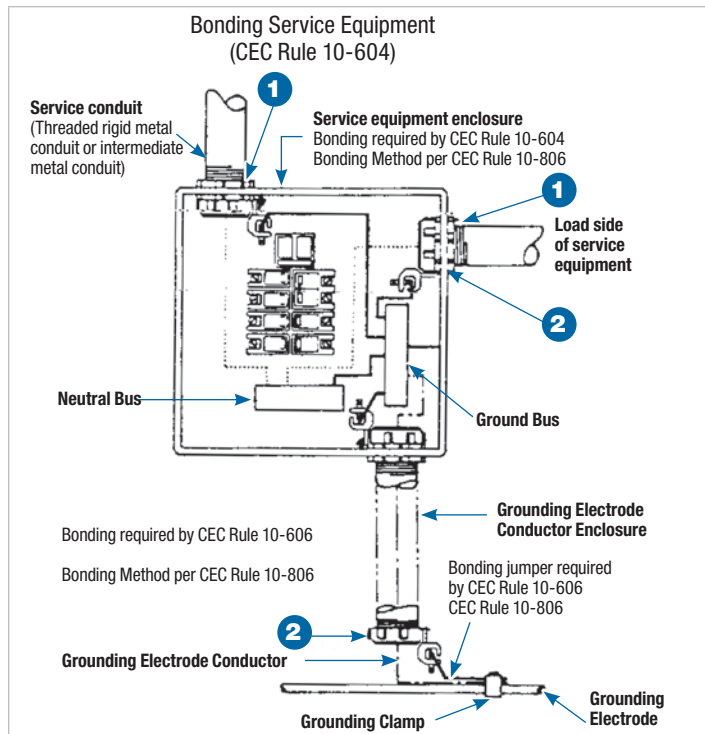
Note: Bonding jumper required by CEC Rule 10-614

- (1) Threaded rigid metal conduit or intermediate metal conduit
- (2) T&B Series 142 Locknuts
- (3) T&B Series 122 Bushing, Metallic
- (4) T&B Series 3650 Bonding Wedge
- (5) T&B Series 3870 Bonding and Grounding Bushing
- (6) T&B Typical Mechanical or Pressure Type Fitting

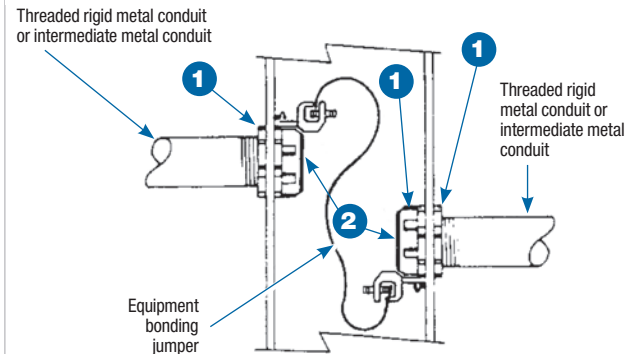
Note: For raintight applications, a sealing ring, T&B Series 5302, may be used between outside of box or enclosure and the outside locknut.

Rigid and Intermediate Metal Conduit Fittings

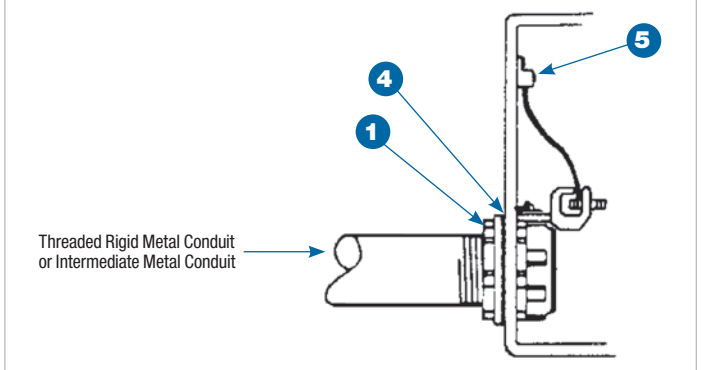
Methods of Bonding and Grounding (cont'd)



Install Bonding Jumper to Assure Electrical Continuity Between Isolated Sections of Raceways (CEC Rule 10-614)



- (i) Installing bonding jumper around unpunched concentric or eccentric knockouts in sheet metal box or enclosure [CEC Rule 10-806]
- (ii) Installing bonding jumper in hazardous locations where 'locknut bushing' or 'double locknut' type of contact is unacceptable method for bonding purposes [CEC Rule 18-074]



- 1 T&B Series 142 Locknut
- 2 T&B Series 3870 Bonding and Grounding Bushing (Threaded)
- 3 T&B Series 5262 Sealing "O" Ring
- 4 T&B Typical Bolted or Pressure Lug

Suggested Specifications

Insulated grounding and bonding bushing (Series 3870)

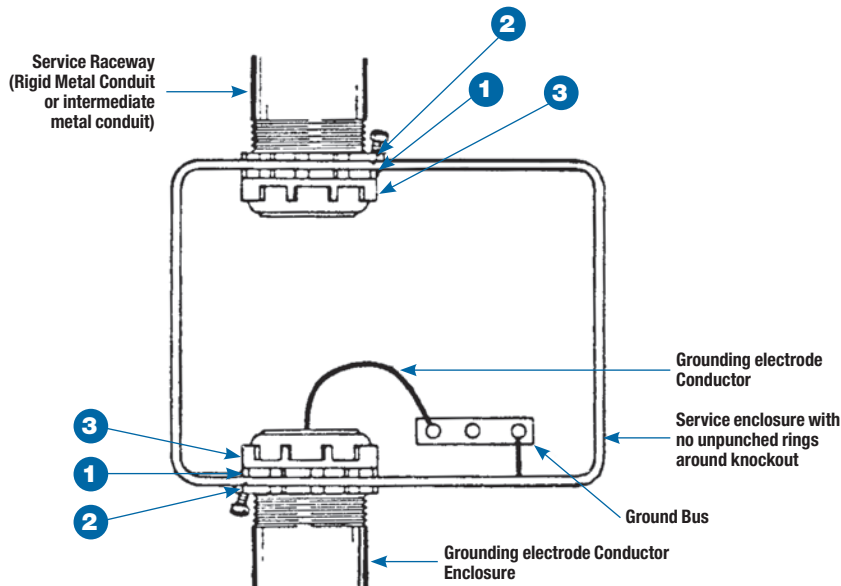
Where code requires bonding and grounding of single or multiple metal conduits, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing such as Series 3870 manufactured by Thomas & Betts.

Grounding and bonding bushings used shall be approved for the purpose and

- (1) Shall be of malleable iron/steel/aluminum construction adequately protected against corrosion
- (2) Bushing insulator shall be listed or certified for 150°C/302°F application with a flammability rating of 94V-0. Insulator must be positively locked in place

Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



- (1) T&B Series 142 Locknut
- (2) T&B Series 106 Bonding Locknuts
- (3) T&B Series 122 Bushing

Suitable for Bonding Raceway, EMT or Terminating Fitting to a sheet metal box or enclosure where

- (a) No unpunched concentric or eccentric rings remain around the knockout
- (b) Ordinary locknut is unacceptable for bonding purposes such as
 - (i) Service Equipment Enclosures CEC Rule 10-614
 - (ii) Bonding for circuits over 250 volts (where required) CEC Rule 10-614
 - (iii) Bonding in Hazardous Locations regardless of the voltage of the system CEC Rule 18-074

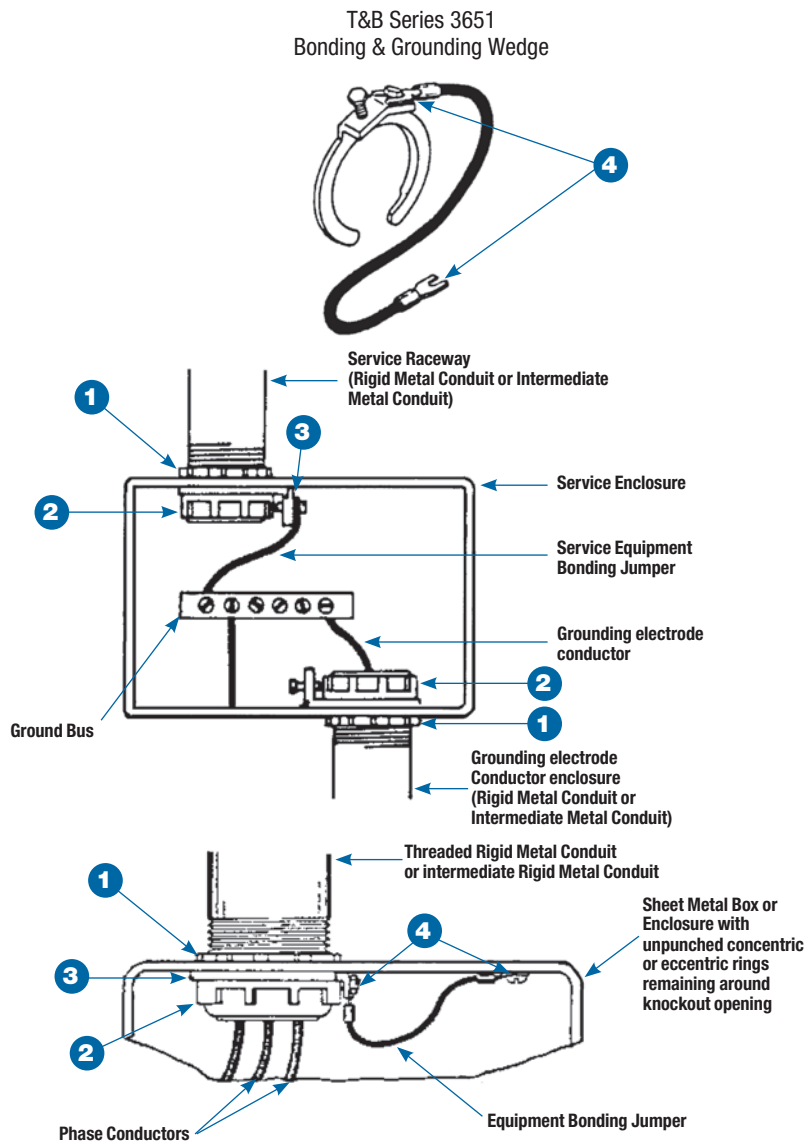
Suggested Specifications

Bonding Type Locknut (Series 106)

Where drawings indicate installation of a bonding type locknut to effectively bond a terminating fitting or metal conduit to a cabinet, box, enclosure or an auxiliary gutter, the locknuts installed shall be of hardened steel/malleable iron construction, electro-zinc plated, such as Series 106 manufactured by Thomas & Betts.

Rigid and Intermediate Metal Conduit Fittings

Methods of Bonding and Grounding (cont'd)



- (1) T&B Series 142 Locknut
- (2) T&B Series 122 Metallic Bushing
- (3) T&B Series 3651 Bonding & Grounding Wedge
- (4) T&B Pressure (crimp type) Terminal Lug

Acceptable Method for Bonding Following

- (i) Service Equipment
CEC Rule 10-614
- (ii) Bonding for Circuits over 250 volts
CEC Rule 10-614
- (iii) Bonding in Hazardous Locations
CEC Rule 18-074

When installed with a bonding jumper, acceptable method of bonding where unpunched rings remain around concentric or eccentric knockouts in sheet metal boxes or enclosures. [CEC Rule 10-614].

Suggested Specifications

Bonding and Grounding Wedge (Series 3650)

Bonding and Grounding Wedges installed to effectively bond terminating fitting or metal conduit to a cabinet, box, enclosure or an auxiliary gutter or to install bonding jumper around concentric or eccentric knockouts shall be of the type as manufactured by Thomas & Betts — Series 3650.

Bonding and Grounding Wedge shall be of rugged bronze/tin-plated or steel/electro-zinc plated.

Electrical Metallic Tubing (EMT) Fittings

Specifications — Electrical Metallic Tubing (EMT)

Ref. CEC Rule 12-000 not exceeding 750 Volts

Electrical Metallic Tubing (EMT) is similar to rigid steel conduit but is much lighter, weighing approximately 40 percent as much as rigid steel conduit of the same nominal size. EMT can be used, reference CEC Rule 12-1402, for both exposed or concealed work provided that, during installation or afterwards, it is not subjected to severe physical damage. Galvanized Steel EMT installed in concrete, on grade or above, generally requires no supplementary corrosion protection. However, when installed in concrete below grade level and in contact with soil or cinders, supplementary corrosion protection consisting of a protective coating of bitumastic or asphalt base paint or plastic is generally applied. EMT run in or under permanently moist cinder fill must be encased in at least two inches of cinder-free concrete unless the conduit is at least 18 inches below the fill.

Aluminum EMT cannot be directly embedded in concrete containing soluble chlorides such as calcium chloride, unwashed beach sand, sea water or coral bearing aggregates. When adequately treated with a protective coating of bitumastic or asphalt base paint or plastic coating, the raceway can be installed in concrete containing chlorides.

In wet locations where walls are frequently washed or where there are surfaces of absorbent material, the entire wiring system, including boxes, fittings, conduits and cables, must be supported such that there is at least 1/4 inch air space between it and the supporting surface.

Fittings and couplings are required to be of concrete tight type when embedded in masonry or concrete or in dry locations and of the raintight type when installed in wet locations (CEC Rule 12-1410).

Where No. 4 or larger underground conductors enter or leave a conduit, an insulating bushing with a smooth well-rounded insulating surface must be provided to protect conductors unless the terminating fitting is equipped with an insulated throat, firmly secured in place providing equivalent protection. The insulating bushing or insulating material must have a temperature rating of not less than the insulation temperature rating of installed conductors.

CEC Rule 12-3022 requires that the raceways be metallically joined together into a continuous electric conductor and must be mechanically connected to all boxes, fittings and cabinets as to provide effective electrical continuity.

EMT is not permitted to be threaded. Cut ends of tubing are required to be reamed. Code requires that EMT be adequately supported and restricts bends in one run to the equivalent of four quarters or 360 degrees total.

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For further details and complete information please refer to the following:

1. NEC Article 358...Electrical Metallic Tubing
2. ANSI C80.3 — Electrical Metallic Tubing, Zinc Coated
3. UL797 — Standards for Safety, Electrical Metallic Tubing
4. ANSI C80.4...Fittings for Rigid Metal Conduit and Electrical Metallic Tubing
5. UL 514A and 514B, Standards for Safety, Outlet Boxes and Fittings
6. WW-C-563...Conduit, Metal, Rigid, and Bend and Elbow, Electrical Conduit, Thinwall Type (EMT)
7. W-F-408...Fittings for Conduit, Metal, Rigid, (Thickwall & Thinwall (EMT) Type)
8. NEMA FB-1...Standards Publication, Fittings and Supports for Conduit & Cable Assemblies
9. CEC Section 12-1400...Electrical Metallic Tubing
10. CSA C22.2 No. 83...Safety Standards for Electrical Metallic Tubing
11. CSA C22.2 No. 18.1 and 18.3 Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Electrical Metallic Tubing (EMT) Fittings

Suggested Specifications for Electrical Metallic Tubing (EMT) Fittings

- Ferrous Electrical Metallic Tubing (EMT) shall be of the hot dipped galvanized type conforming to applicable specifications WW-563/ANSI 80.3/UL 797/CSA C22.2 No. 83. EMT protected solely by enamel shall not be used.
- Where lengths of EMT are coupled together or connected to boxes or enclosures or where EMT is coupled to threaded rigid metal conduit or IMC, fittings approved for intended applications shall be used, and:
 - (1) Shall be of rugged steel/malleable iron construction electro-zinc plated inside/outside including threads. Fitting throat shall be bushed with a nylon insulator.
 - (2) Shall be of raintight type for installations exposed to weather or wet locations such as Thomas & Betts Series 5123, 5120 and 530.
- Where electrical metallic tubing and associated fittings are used as part of equipment grounding system:
 - (1) A bonding type locknut such as Thomas & Betts Series 106 shall be installed where hub type fitting terminates into a threadless opening
 - (2) Compression ring type fittings such as Thomas & Betts Series 5123 and 5120 shall be used for terminating and coupling.
- EMT shall be securely fastened in place at intervals as specified by the code using straps, hangers and other supporting assemblies as indicated on plans, and as manufactured by Thomas & Betts, Series 4176 straps. In wet locations or where supporting surfaces are of absorbent materials vertical and horizontal runs of conduit shall be firmly supported such that there is at least 1/4 in. air space between conduit and supporting surface
- Spacers and supporting straps shall be of rugged malleable iron or steel construction, hot dipped galvanized, and conforming to requirements of Canadian Standards Association Standard C22.2 No. 18.3 as manufactured by Thomas & Betts, Series 4176 straps and Series 1350 spacers.

Raintight type fittings may be substituted for concrete tight application.



Series 5123
Insulated EMT Fitting (Raintight)
(Compression Type)



Series 5120
EMT Coupling (Raintight)
(Compression Type)



Series 1350
Pipe Spacers



Series 106
Bonding Locknut



Series 4176
Pipe Straps

Electrical Metallic Tubing (EMT) Fittings

Specifications — Fittings for Electrical Metallic Tubing (EMT) Compression Type, Raintight



5123 Series



**5120 Series
4230 Series — 90° Fittings**

Application

- To connect and effectively bond electrical metallic tubing to a box or an enclosure
- To provide a raintight connection between tubing and the fitting
- To couple ends of tubing

Features

- Rugged all steel construction
- Rings designed to positively bond conduit to fitting; unique locknut design provides effective bond between fitting and box or enclosure; ground continuity is assured
- Nylon insulator firmly secured in place—protects conductors, reduces wire pulling effort and prevents thread damage in handling
- Locknuts are designed with extended reach to lock fitting on to a thin box or an enclosure
- Locknuts tighten without deformation; will not vibrate loose

Standard Material

All Steel except Insulator

Insulator Thermoplastic, UL
Rated 105°C

Standard Finish

All Steel Parts Electro Zinc Plated
& Chromate Coated

Insulator As Molded

Range

• **Conduit Size** 1/2 in. thru 2 in.

• **Hub Size** 1/2 in. thru 2 in. NPS

Hubs provided with straight pipe threads NPS

Conformity

UL 514B

CSA 22.2 No. 18.3

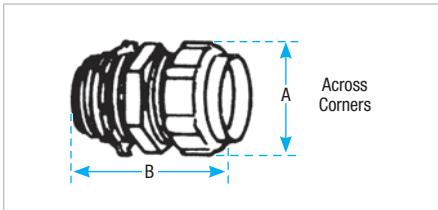
NFPA 70-2008 (ANSI)

NEMA FB-1

Federal Specification W-F-408

Federal Standard H-28 (Threads)

Electrical Metallic Tubing (EMT) Fittings

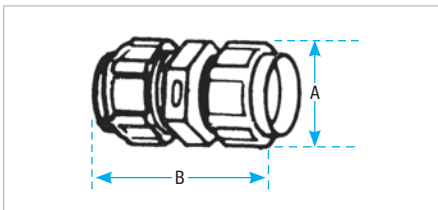


EMT Fittings – Nylon Insulated



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
5123	1/2	1-3/64	1-21/32
5223	3/4	1-21/64	1-27/32
5323	1	1-11/16	1-7/8
5423	1-1/4	2-1/16	2-11/32
5523	1-1/2	2-5/16	2-23/32
5623	2	2-25/32	2-13/16

UL Listed and CSA Certified concrete-tight

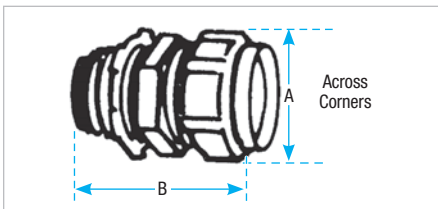


EMT Couplings



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
5120	1/2	1-1/16	1-27/32
5220	3/4	1-5/16	2-1/8
5320	1	1-11/16	2-1/8
5420	1-1/4	2-1/16	2-29/32
5520	1-1/2	2-5/16	3-1/16
5620	2	2-3/4	3-7/32

UL Listed and CSA Certified concrete-tight



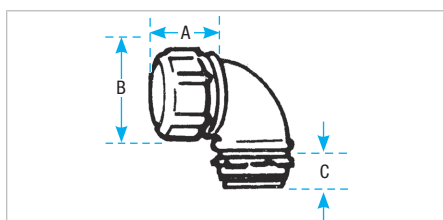
EMT Fittings



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
5121-TB	1/2	1-1/16	1-9/16
5221	3/4	1-5/16	1-21/32
5321	1	1-11/16	1-3/4
5421	1-1/4	2-1/16	1-11/32
5521-TB	1-1/2	2-5/16	2-9/16
5621	2	2-3/4	2-3/4

UL Listed and CSA Certified concrete-tight
T&B EMT (thinwall) fittings comply with Federal Spec. WF408B

Electrical Metal Tubing (EMT) Fittings



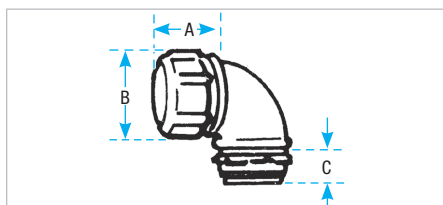
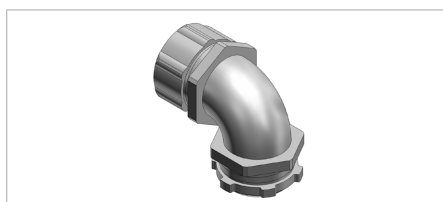
Ideal for cramped locations or tight corners where large radius conduit elbows will not fit or would appear unworkmanlike. Shoulders on body of 1/2 in. size are hex-shaped to provide positive holding for standard installation tools. Use insulated type for simple, and safe, installations. Malleable iron. CSA rated 105°C.

Short Elbows – Insulated



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
4240	1/2	1-7/8	1-1/8	11/16
4241-TB	3/4	1-11/16	1-3/8	1/2
4242	1	1-7/8	1-5/8	5/8
4243-TB	1-1/4	2-3/4	2-5/16	11/16
4244	1-1/2	3-1/16	2-5/8	11/16
4245	2	3-3/8	3-7/32	3/4

UL Listed and CSA Certified raintight



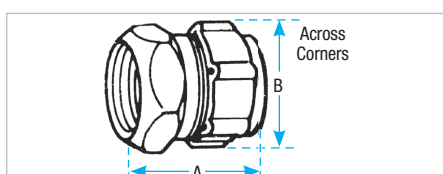
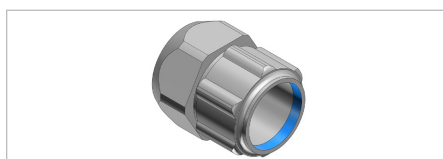
Ideal for cramped locations or tight corners where large radius conduit elbows will not fit or would appear unworkmanlike. Shoulders on body of 1/2 in. size are hex-shaped to provide positive holding for standard installation tools.

Short Elbows Malleable Iron



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C
4230	1/2	1-7/16	1-9/32	7/16
4231	3/4	1-11/16	1-19/32	1/2
4232	1	1-7/8	1-27/32	5/8
4233	1-1/4	2-3/4	2-15/32	11/16
4234	1-1/2	3-1/16	2-3/4	11/16
4235	2	3-3/8	3-5/16	11/16

UL Listed and CSA Certified raintight



For connecting EMT to threaded rigid and intermediate metal conduit

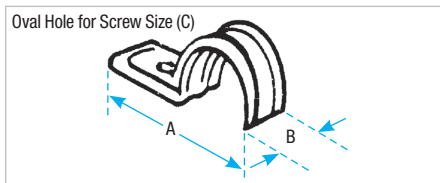
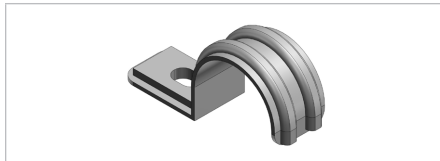
Combination Coupling – Steel



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
530-TB	1/2	1-3/8	1-1/16
531	3/4	1-1/2	1-11/32
532	1	1-19/32	1-21/32

UL Listed and CSA Certified raintight

Electrical Metallic Tubing (EMT) Fittings



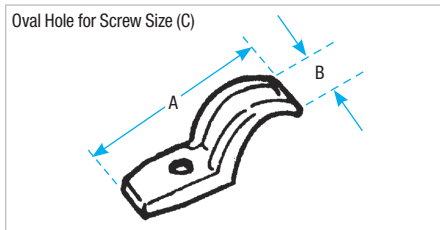
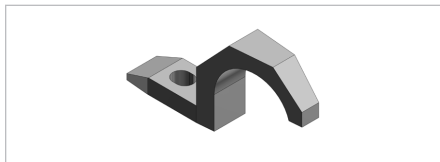
Elongated bolt hole makes alignment easy, even when holes in mounting surface are out of alignment. Snap on features hold strap in place.

Pipe Straps – Steel



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C (Bolt Hole)
4159C	1/2	1-27/32	3/4	1/4
4160C	3/4	2-1/32		
4161C	1	2-11/32		
4162*	1-1/4	2-7/8		
4163*	1-1/2	3-11/16	1-1/4	11/32
4164*	2	4-1/16	1-1/8	13/32

Not UL Listed
*Not CSA
Conform to CEC 12-1404



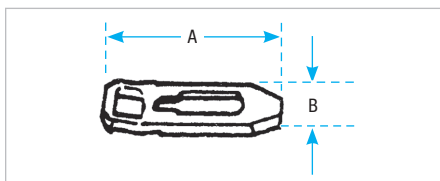
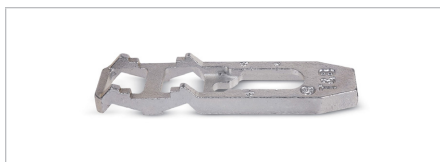
Designed to fit each size of conduit snugly. High reinforcing ribs on each side increase strength, reduce weight. Hot dipped galvanized finish.

Pipe Straps – Malleable Iron



Cat. No.	Size (in.)	Dimensions (in.)		
		A	B	C (Bolt Hole)
4175-C	3/8	1-1/2	5/8	17/64
4176	1/2	2-5/32	21/32	1/4
4177	3/4	2-9/16	11/16	1/4
4178	1	3	3/4	1/4
4179	1-1/4	3-3/4	1-3/16	5/16
4180	1-1/2	4-3/16	1-5/16	3/8
4181	2	5-3/16	1-1/8	7/16
1282*	2-1/2	5-15/16	1-1/2	1/2
1283*	3	6-11/16	1-5/8	1/2
1284*	3-1/2	7-19/32	1-3/4	5/8
1285*	4	8-5/16	1-7/8	5/8

Not UL Listed
*Not CSA
Conforms to CEC 12-1404



Used with T&B conduit straps to permit space between conduit and mounting surface. Eliminates need for costly offset-bending conduit and possible corrosive moisture traps when conduit is mounted directly to a surface. Malleable iron. Hot-dipped galvanized finish, pre-mountable and stackable to eliminate offsetting.

Pipe Spacers



Cat. No.	Size (in.)	Dimensions (in.)	
		A	B
1350	1/2, 3/4, 1	3	7/8
1351	1-1/4, 1-1/2, 2	5	1-3/16
1352	2-1/2, 3	9-9/16	1-3/4
1353	3-1/2, 4	7-9/16	2

Conforms to CEC 12-012 (5)

Flexible Cord and Cable Fittings

Specifications — Flexible Cord and Cable

Ref. CEC Section 4 (Conductors)

In the Canadian Electrical Code, Flexible Cords are known by their trade names “Hard Service Cord”, “Junior Hard Service Cord” and “Vacuum Cleaner Cord”.

Depending on jacket material, flexible cords listed are suitable for use where immersed in water or where occasionally or continuously in contact with oil or immersed in oil, or outdoors and in mobile homes and recreational vehicles.

Flexible cord is permitted by Code for use in portable appliances or stationary equipment requiring movement for service and repair and for wiring in cranes, hoists and elevators. Flexible cord is also permitted to be used to prevent transmission of noise or vibration.

Flexible cord is not permitted as a substitute for fixed wiring of structures or where concealed behind building walls, ceilings or floors. Running flexible cord through holes in walls, ceilings, floors or through doorways, windows or similar openings is also prohibited.

CEC Section 4 requires that flexible cords be so connected to devices and to fittings that tension is not transmitted to joints or terminal screws. Use of suitable strain relief fittings designed for the purpose is one of the recommended alternatives.

Please refer to the following for further details and complete information:

1. UL 62, ANSI C33.1...Safety Standard for Flexible Cord and Fixture Wire
2. UL 514A and 514B, Safety Standard for Outlet Boxes and Fittings
3. CEC Section 4...Conductors
 - 4-012...Uses of Flexible Cord
 - 4-040...Uses of Portable Power Cable
 - 12-010 (4)...Flexible Cords in Ducts and Plenum Chambers
 - 22-108 (2)...Bonding conductor for Flexible Cords for Portable Equipment
 - 44-350 (1) (b)...Flexible Cords for Portable Stage Equipment
 - 50-018 (2)...Flexible Cords suitable for extra-hard usage are permitted on Solar photovoltaic systems

70-108...Power Supply Cord-Factory- Built Relocatable Structures and Non-relocatable Structures

76-002...Temporary Wiring

76-010...Feeders

78-058 (2)...Marinas and Yacht Clubs

78-104 (2)...Marine Wharves, Structures, and Fishing Harbours

4. CSA C22.2 No. 49...Safety Standards for Flexible Cords and Cables and Fixture Wires

5. CSA C22.2 No. 18.1 and 18.3...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Following is a brief description of the three cords:

Type of Cord	Hard Service Cord	Junior Hard Service Cord	Vacuum Cleaner Cord
1. Use	Extra Hard Pendant, Portable	Hard Pendant, Portable	Light Pendant, Portable
2. Voltage Rating	Up to 600 volts	Up to 300 volts	Up to 300 volts
3. Conductor Material	Copper (Stranded)	Copper (Stranded)	Copper (Stranded)
4. Type Designation (Depends on Jacket Material)			
i. Rubber Jacket	Type S	Type SJ	Type SV
ii. Oil Resistant Rubber Jacket	Type SO	Type SJO	Type SVO
iii. Thermoplastic Jacket	Type ST	Type SJT	Type SVT
iv. Oil Resistant Thermoplastic Jacket	Type STO	Type SJTO	Type SVTO

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Flexible Cord and Cable Fittings

Suggested Specifications for Flexible Cord and Cable Fittings



2520 and 2530 Series
Liquidtight Flexible
Cord & Cable Fittings



2920NM Series
Nonmetallic Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series



2631 Series
Liquidtight Flexible
Cord & Cable Fittings



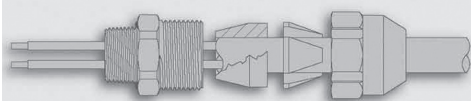
2920AL Series
Aluminum Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series



2672 Series
Flexible Cord Fittings
(Plastic)



2920S Series
Steel Liquidtight
Flexible Cord & Cable Fittings
The Ranger™ Series



TCF Series
Aluminum Tray/Cord Fitting



2920SST Series
Stainless Steel Liquidtight
Flexible Cord & Cable Fittings

- Flexible cord or cable and associated fittings shall be suitable for conditions of use and location and approved for the purpose by a nationally recognized testing laboratory, inspection agency or product evaluation organization.
- Flexible cord or cable shall be so connected to the device or fitting that tension will not be transmitted to joints or terminal screws. Sufficient slack shall be provided to avoid sharp flexing and straining. Cord or cable shall be installed in such a manner that liquid will tend to run off the surface instead of draining towards the fitting.
- Where flexible cord or cable exposed to intermittent or constant moisture and subjected to mechanical strain is terminated into a threaded or threadless opening, terminating fittings shall be of watertight strain relief type such as Thomas & Betts Series 2920, 2920AL, 2920NM, 2520, 2631 or 2672. Fittings shall be equipped with a beveled moisture resistant/oil resistant synthetic rubber bushing.
- Where space is limited inside the enclosure, a female hub type fitting such as Thomas & Betts Series 2631 shall be furnished. A captive resilient sealing 'O' ring shall be included to positively protect against damage from overtorquing.

Flexible Cord and Cable Fittings

Suggested Specifications for Flexible Cord and Cable Fittings (cont'd)



Series 3300
Nonmetallic Sheathed
Cable & Flexible Cord Fitting



Series 5262
Sealing Gasket



Series 1942
Insulated Nipple



Series 3210
Knockout Bushings

- Where flexible cord or cable exposed to moisture is terminated into a threadless opening using male threaded hub type fittings such as Thomas & Betts Series 2520 or 2920, a suitable moisture resistant/oil resistant synthetic rubber gasket such as Thomas & Betts Series 5262 shall be provided between the outside of box or enclosure and fitting shoulder. Resilient gasket shall be adequately protected by and permanently bonded to a metallic retainer.
- Where exposed to environmental conditions that are more than normally corrosive, watertight strain relief fittings shall be of high impact thermoplastic construction such as Thomas & Betts Series 2672 or 2920NM.
- Where flexible cord or cable passes through either factory or field punched, cut or drilled holes in metal members, the cord or cable shall be protected by thermoplastic bushing such as Thomas & Betts Series 3210, 3300. Bushing shall be firmly secured in opening. Nylon bushed metallic fittings such as Thomas & Betts Series 1942 may be substituted as required.
- For wet location, fittings furnished with synthetic rubber bushing such as Thomas & Betts Series 2530 or 2672 shall be installed.

Flexible Cord and Cable Fittings

How to Select T&B Flexible Cord Fittings

Step 1.
Determine Diameter Range in chart by using cord size and type or by measuring the diameter of your cord.

Step 2.
Determine catalogue number by choosing the hub size and type (straight or 90°) for the diameter range determined by step 1.

This chart can be used as a guide for selecting the proper fitting for the UL Listed and CSA Certified cords. Cords vary in sizes and cord diameter should be measured whenever possible.



Cat. No.		Hub Size (in.)	Diameter Range (in.)	SV, SVO, SVT, SVTO Cord Sizes
Straight	90°			
2671	2680	3/8	0.125-0.275	18-2, 18-3



Cat. No.		Hub Size (in.)	Diameter Range (in.)	SV, SO, ST, STO Cord Sizes	SJO, SJO, SJTO, SJ Cord Sizes
Straight	90°				
2920NM	4960NM	1/2	0.125-0.375	18-2, 18-3*	18-2, 18-3, 18-4, 16-2,
2930NM	4970NM	3/4			16-3, 16-4*, 14-2, 14-3*
2921NM	4961NM	1/2			18-3, 18-4, 18-5, 18-6, 18-7*
2931NM	4971NM	3/4	0.310-0.560	18-3, 18-4*, 18-5, 16-2*	16-3, 16-4, 16-5, 16-6*, 14-2,
2940NM	—	1			14-3, 14-4, 12-2, 12-3, 12-4, 10-2
2922NM	—	1/2		16-5, 16-6, 14-2, 14-3, 14-4,	
2932NM	4972NM	3/4	0.500-0.750	14-5, 12-2, 12-3, 12-4, 12-5,	12-4, 10-2, 10-3, 10-4
2941NM	—	1		10-2, 10-3, 10-4, 8-2	
2942NM	—	1	0.700-0.950	10-4, 10-5, 8-3, 8-4	
—	2688	1	0.560-0.690	14-3*, 14-4, 14-5*, 12-2, 12-3, 12-4*, 10-2, 10-3*	10-2*, 10-3, 10-4
—	2685	1	0.660-0.780	14-5, 12-4*, 12-5, 10-3*, 10-4	10-4
2696	—	3/4	0.770-0.895	10-5, 8-2, 8-3*	
—	2686	1			
2678	2687	1	0.870-1.020	8-3*, 8-4*	
2699	—	1	0.890-1.090	8-4, 8-5*, 6-2, 6-3*, 6-4*, 4-2*	
2702	—	1-1/4			
2703	—	1-1/4		4-2*, 4-3, 2-2*	
2704	—	1-1/4	1.270-1.470	4-4, 2-2*	
2705	—	1-1/2	0.890-1.150	8-4, 8-5, 6-2, 6-3, 6-4*, 4-2*	
2706	—	1-1/2	1.140-1.400	6-5, 6-4*, 4-2*, 4-3, 4-4*, 2-2, 2-3*	
2707	—	1-1/2	1.390-1.650	4-4*, 2-3*, 2-4	
2708	—	2	1.190-1.530	6-5, 4-2*, 4-3, 4-4, 2-2, 2-3, 2-4*	
2709	—	2	1.520-1.860	2-4*	
2710	—	2	1.850-2.190	2-4*	

* Actual cord diameter must be determined before proper fitting can be selected. Measure cord, if available, or refer to cord manufacturer's catalogue.

Flexible Cord and Cable Fittings

Flexible Cord and Power Cable Chart

Type of Cord	AWG Size of Conductors	Number of Conductors and Approximate O.D. (in.)		
		2 Conductor	3 Conductor	4 Conductor
SV, SVO, SVT	18	0.250	0.260	—
SJ, SJO, SJT, SJTO	18	0.300	0.330	0.360
	16	0.330	0.360	0.390
	14	0.375	0.395	0.420
S, SO, ST, STO, and Portable Power Cables	18	0.385	0.400	0.430
	16	0.400	0.425	0.480
	14	0.530	0.560	0.605
	12	0.600	0.635	0.665
	10	0.640	0.690	0.745
	8	0.700-0.840	0.750-0.910	0.820-0.990
	6	0.820-0.930	0.885-1.010	0.975-1.100
	4	1.080	1.170	1.270
	3	1.170	1.240	1.340
	2	1.270	1.340	1.480
	1	1.440	1.510	1.680
	1/0	1.520	1.650	1.790
	2/0	1.650	1.750	1.930
	3/0	1.770	1.890	2.070
	4/0	1.920	2.070	2.260
	250	2.160	2.390	—
	14	—	—	0.410
	12	—	—	0.450
	10	—	—	0.530
Bus Drop Cables	8	—	—	0.670
	6	—	—	0.850
	4	—	—	0.950
	2	—	—	1.000

Note: The above dimensions are approximate and may vary depending upon the manufacturer

Flexible Cord and Cable Fittings

Specifications — Liquidtight Flexible Cord and Cable Fittings

Application

- A liquidtight fittings to connect flexible cord or power cable to a box or enclosure and provide adequate strain relief.

Features

- Liquidtight connection with box or enclosure is assured by:
 - (1) Taper threaded hub on 2520 Series for female hub application (A)
 - (2) Using sealing ring Series 5262 with 2520 Series for knockout application (B)
 - (3) Captivated sealing 'O' ring on 2631 Series (C)
- Neoprene bushing makes liquidtight installation; applies pressure against cable the full length of bushing (D)
- Thermoplastic or stainless steel retaining ring (E)
 - (1) Will not abrade cord/cable jacket
 - (2) Reduces installing torque effort

- UL Listed for liquidtightness, strain relief and as an outlet bushing; CSA certified watertight

Standard Material

Gland, Body	Steel/Malleable Iron/Zinc Die Cast
Retaining Ring	Thermoplastic/ Stainless Steel
Bushing	Neoprene
'O' Ring	Buna N

Standard Finish

Electro Zinc Plated & Chromate Coated

Range

- 2520 Series, straight 0.125 in. outside diameter to 3.200 in. outside diameter Cord or Cable
- 2200 Series, 45° 0.125 in. outside diameter to 1.485 in. outside diameter Cord or Cable

- 2267 Series, 90° 0.125 in. outside diameter to 1.875 in. outside diameter Cord or Cable Cord/Cable Type S, SO, SV, ST, STO, SJ, SJO, SJT, SJTO, SVO & SVT

Conformity

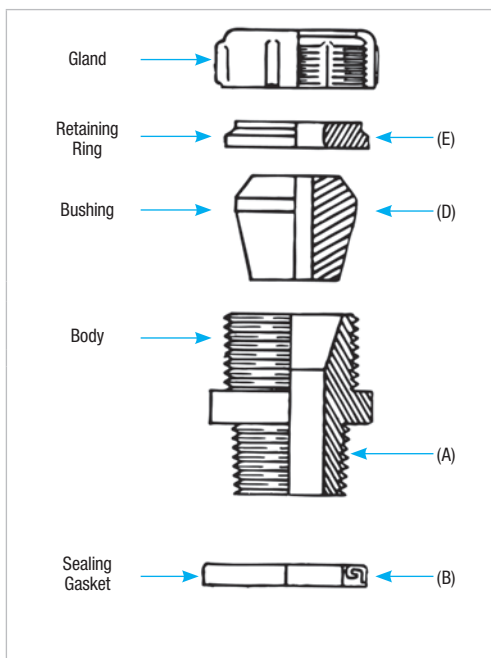
UL 514B
CSA C22.2 No. 18.3
NFPA 70-2008 (ANSI)



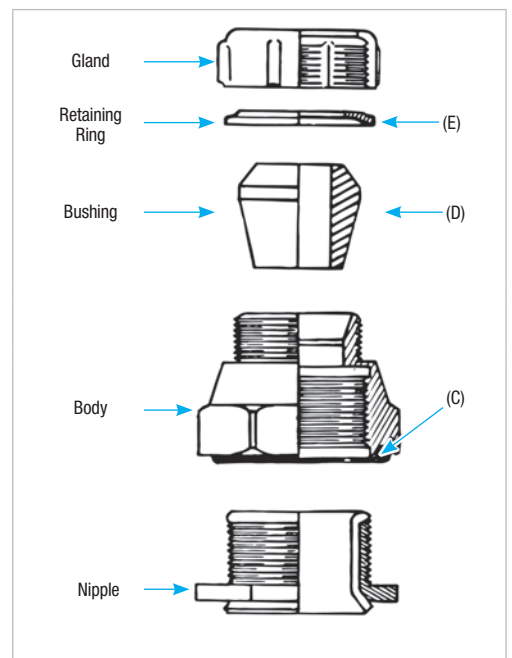
2520 Series



2631 Series



2520 Series



2631 Series

Flexible Cord and Cable Fittings

Liquidtight Strain Relief Fittings



Cat. No.	Cable Size Range min.-max.	Hub Size (in.)	Throat Dia. Min. (in.)	Fig.	Dimensions (in.)		
					A	B	C
2516†	(0.060-0.125)	1/4	23/64	2	53/64	1-7/16	15/32
2517†	(0.120-0.250)		23/64		53/64	1-7/16	15/32
2518†	(0.060-0.150)	3/8	29/64		31/32	1-1/2	15/32
2519†**	(0.150-0.300)		29/64		31/32	1-1/2	15/32
2520	(0.125-0.250)	1/2	9/16	1	1-5/32	1-11/16	5/8
2521	(0.250-0.375)		9/16		1-5/32	1-11/16	5/8
2522	(0.375-0.500)		9/16		1-5/32	1-11/16	5/8
2523	(0.450-0.560)		9/16		1-5/32	1-11/16	5/8
2524*	(0.500-0.625)		5/8		1-3/8	1-3/4	5/8
2525*	(0.625-0.750)		5/8		1-3/8	1-3/4	5/8
2530	(0.125-0.250)	3/4	13/16	1	1-3/8	1-3/4	9/16
2531	(0.250-0.375)		13/16		1-3/8	1-3/4	9/16
2532	(0.375-0.500)		13/16		1-3/8	1-3/4	9/16
2534	(0.500-0.625)		13/16		1-3/8	1-3/4	9/16
2535	(0.625-0.750)		13/16		1-3/8	1-3/4	9/16
2536*	(0.750-0.880)		3/4		1-11/16	1-15/16	5/8
2541	(0.250-0.375)	1	49/64	1	1-3/8	1-23/32	9/16
2542	(0.375-0.500)		49/64		1-3/8	1-23/32	9/16
2544	(0.500-0.625)		49/64		1-3/8	1-23/32	9/16
2545	(0.625-0.750)		49/64		1-3/8	1-23/32	9/16
2546	(0.750-0.875)		63/64		1-11/16	1-7/8	23/32
2547	(0.875-0.985)		63/64		1-11/16	1-7/8	9/16
2548*	(0.880-1.065)		29/32		2-3/32	2-3/8	25/32
2549*	(1.065-1.205)		29/32		2-3/32	2-3/8	25/32

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body

† UL not applicable

** Not CSA Certified

Complies with JIC standards

UL Listed as liquidtight strain relief, and outlet bushing. CSA certified watertight when used with 5262 Series Sealing Ring. Gasket (Sold separately)

Temperature rating: 105°C

For Wiremesh Grips refer to page B74

Cat. No.	Cable Size Range min.-max.	Hub Size (in.)	Throat Dia. Min. (in.)	Fig.	Dimensions (in.)		
					A	B	C
2558	(0.880-1.065)	1-1/4	1-17/64	1	2-3/32	2-5/32	13/16
2559	(1.065-1.205)		1-17/64		2-3/32	2-5/32	13/16
2556*	(1.187-1.375)		1-1/4		2-11/32	2-1/2	13/16
2557*	(1.375-1.485)		1-1/4		2-11/32	2-1/2	13/16
2562	(0.812-1.000)	1-1/2	1-7/16	1	2-11/32	2-1/2	11/16
2563	(1.000-1.187)		1-7/16		2-11/32	2-7/16	11/16
2564	(1.187-1.375)		1-7/16		2-11/32	2-7/16	11/16
2565*	(1.375-1.625)		1-29/64		2-13/16	2-5/8	13/16
2573	(1.125-1.375)	2	1-7/8	1	2-13/16	2-5/8	13/16
2574	(1.375-1.625)		1-7/8		2-13/16	2-5/8	11/16
2575	(1.625-1.875)		1-7/8		2-13/16	2-5/8	11/16
2576*	(1.750-1.965)		1-29/32		3-7/32	3-1/2	27/32
2577*	(1.937-2.187)		1-29/32		3-7/32	3-1/2	27/32
2584	(1.750-1.965)	2-1/2	2	1	3-7/32	3-3/4	1-1/32
2585*	(1.937-2.187)		2		3-7/32	3-3/4	1-1/32
2586*	(2.156-2.360)		2-5/32		3-15/16	4-1/4	1-1/32
2587*	(2.350-2.565)		2-5/32		3-15/16	4-1/4	1-1/32
2592	(2.156-2.360)	3	2-13/32	1	3-15/16	4-1/4	1-1/32
2593	(2.350-2.565)		2-13/32		3-15/16	4-1/4	1-1/32
2594	(2.535-2.750)		2-13/32		3-15/16	4-1/4	1-1/32
2595*	(2.735-2.985)		2-13/16		4-11/16	4-13/16	1-1/8
2596*	(2.970-3.220)		2-13/16		4-11/16	4-13/16	1-1/8

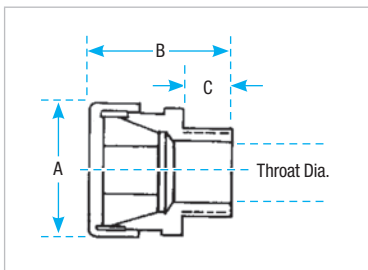
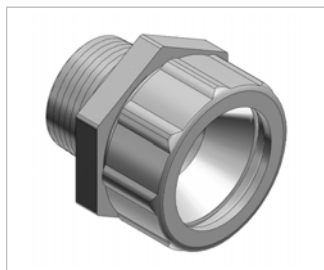


Fig. 1

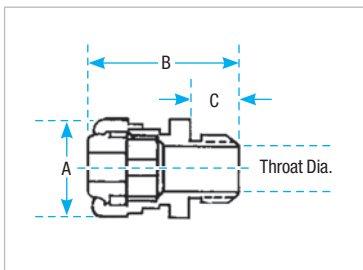


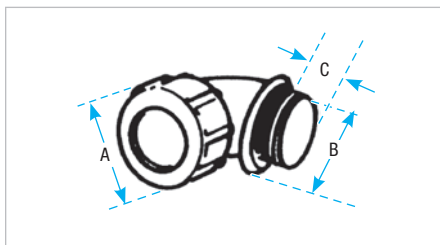
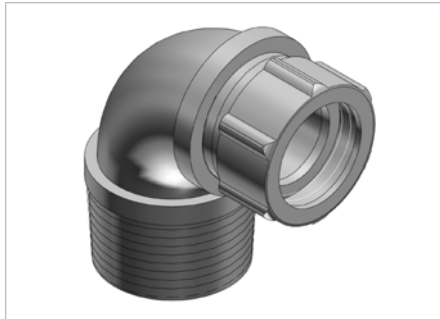
Fig. 2



Sealing Ring Gasket
sold separately

5262 Series

Flexible Cord and Cable Fittings



Swing Radius

90° with neoprene bushings, tapered hub threads, malleable iron

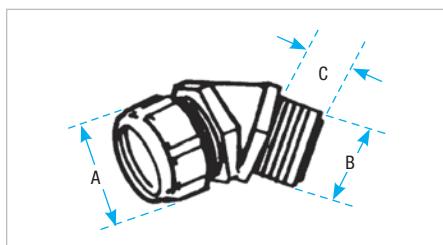
Strain Relief Fittings



Cat. No.	Cable Size min.-max.	Hub Size (in.)	Dimensions (in.)			Throat Dia. (in.)
			A	B	C	
2267	(0.125-0.250)	1/2	1-5/32	1-23/32	5/8	19/32
2268	(0.250-0.375)		1-5/32	1-23/32	5/8	19/32
2269	(0.375-0.500)		1-5/32	1-23/32	5/8	19/32
2270	(0.450-0.560)		1-5/32	1-23/32	5/8	19/32
2250*	(0.500-0.625)		1-3/8	1-11/16	9/16	39/64
2251*	(0.625-0.750)		1-3/8	1-11/16	9/16	39/64
2252	(0.125-0.250)	3/4	1-3/8	1-3/4	41/64	25/32
2271	(0.250-0.375)		1-3/8	1-5/8	41/64	25/32
2272	(0.375-0.500)		1-3/8	1-5/8	41/64	25/32
2273	(0.500-0.625)		1-3/8	1-5/8	41/64	25/32
2274*	(0.620-0.750)		1-3/8	1-5/8	41/64	25/32
2253*	(0.750-0.880)		1-11/16	1-31/32	9/16	25/32
2254	(0.375-0.500)	1	1-3/8	2	13/16	1
2255	(0.500-0.625)		1-3/8	2	13/16	1
2256*	(0.625-0.750)		1-3/8	2	13/16	1
2275	(0.750-0.875)		1-11/16	2	13/16	1
2276	(0.875-0.985)		1-11/16	2	13/16	1
2257*	(0.880-1.065)		2-3/32	2-21/32	25/32	15/16
2258*	(1.065-1.205)		2-3/32	2-21/32	25/32	15/16
2277	(0.880-1.065)	1-1/4	2-3/32	2-7/8	27/32	1-5/16
2278	(1.065-1.205)		2-3/32	2-7/8	27/32	1-5/16
2279*	(1.187-1.375)		2-11/32	2-13/16	13/16	1-11/32
2280*	(1.375-1.485)		2-11/32	2-13/16	13/16	1-11/32
2281	(0.812-1.000)	1-1/2	2-11/32	2-7/8	13/16	1-15/32
2282	(1.000-1.187)		2-11/32	2-7/8	13/16	1-15/32
2283*	(1.187-1.375)		2-11/32	2-7/8	13/16	1-15/32
2284	(1.125-1.375)	2	2-13/16	3-1/4	27/32	1-31/32
2285	(1.375-1.625)		2-13/16	3-1/4	27/32	1-31/32
2286	(1.625-1.875)		2-13/16	3-1/4	27/32	1-31/32

* Remove sufficient outer covering of cable to permit conductors to pass through fitting body
Complies with JIC standards and Federal Specs W-F-406B, W-F-408B
Meets Coast Guard CG293
For Wiremesh Grips refer to page B74

Flexible Cord and Cable Fittings



Swing Radius 4

5° with neoprene bushings, tapered hub threads, malleable iron

Strain Relief Fittings



Cat. No.	Cable Size min.-max. (in.)	Hub Size (in.)	Dimensions (in.)			Throat Dia. (in.)
			A	B	C	
2200	(0.125-0.250)	1/2	1-5/32	1-9/32	9/16	37/64
2201	(0.250-0.375)		1-5/32	1-9/32	9/16	37/64
2202	(0.375-0.500)		1-5/32	1-9/32	9/16	37/64
2203	(0.450-0.560)		1-5/32	1-9/32	9/16	37/64
2204*	(0.500-0.625)		1-3/8	1-13/32	9/16	37/64
2205*	(0.625-0.750)		1-3/8	1-13/32	9/16	37/64
2206-TB	(0.125-0.250)	3/4	1-3/8	1-13/32	5/8	25/32
2207-TB	(0.250-0.375)		1-3/8	1-13/32	5/8	25/32
2208-TB	(0.375-0.500)		1-3/8	1-13/32	5/8	25/32
2209	(0.500-0.625)		1-3/8	1-13/32	5/8	25/32
2210	(0.625-0.750)		1-3/8	1-13/32	5/8	25/32
2211*	(0.750-0.880)		1-11/16	1-1/2	1-1/2	3/4
2213	(0.375-0.500)	1	1-3/8	1-1/2	25/32	15/16
2214	(0.500-0.625)		1-3/8	1-1/2	25/32	15/16
2215	(0.625-0.750)		1-3/8	1-1/2	25/32	15/16
2216	(0.750-0.875)		1-11/16	1-15/32	25/32	15/16
2217*	(0.875-0.985)		1-11/16	1-15/32	25/32	15/16
2218*	(0.880-1.065)		2-3/32	1-31/32	25/32	15/16
2219*	(1.065-1.205)		2-3/32	1-31/32	25/32	15/16
2222*	(1.187-1.375)	1-1/4	2-11/32	2-1/4	13/16	1-21/64
2223*	(1.375-1.485)		2-11/32	2-1/4	13/16	1-21/64

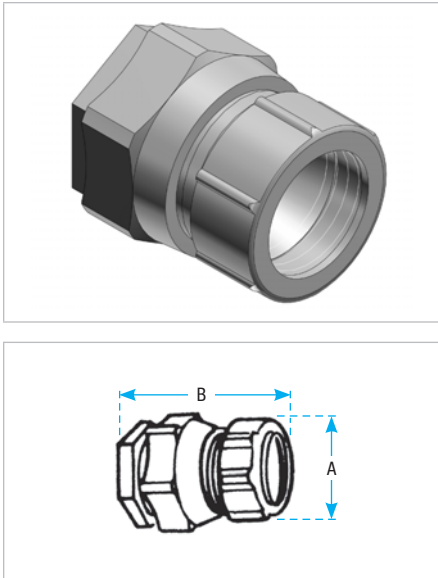
* Remove sufficient outer covering of cable to permit conductors to pass through fitting body

UL Listed as liquidtight strain relief, and outlet bushing

CSA certified watertight

For Wiremesh Grips refer to page B74

Flexible Cord and Cable Fittings



CHASE® Liquidtight Cord Fittings



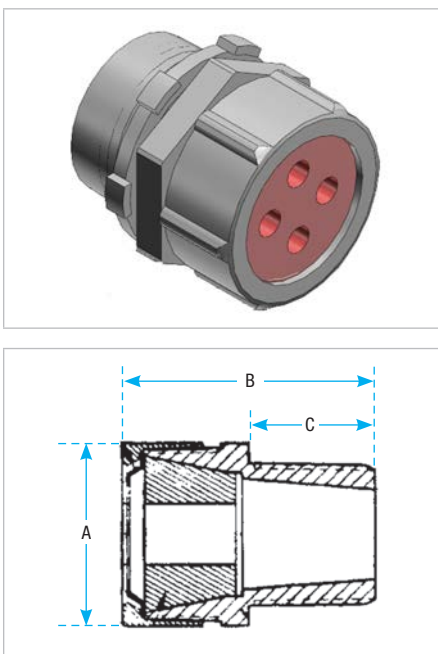
Cat. No.	Cable Size Range min.-max. (in.)	Hub Size (in.)	Throat Diam. (in.)	Dimensions (in.)	
				A	B
2631	(0.125-0.250)	1/2	9/16	1-1/16	1-5/8
2632	(0.250-0.375)				
2633	(0.375-0.500)				
2634	(0.450-0.560)				
2637	(0.125-0.250)	3/4	25/32	1-3/8	1-3/16
2638	(0.250-0.375)				
2639	(0.375-0.500)				
2640	(0.500-0.625)				
2641	(0.625-0.750)				

CSA certified watertight.

UL Listed as liquidtight strain relief, and outlet bushing

Temperature Rating: 105°C

Chase Liquidtight Cord Fittings are ideal for installation where space is limited inside the enclosure



Multi-Hole Cord Grip

Cat. No.	Hub Size (in.)	No. of Diam.	Cord Diam. (in.)	Dimensions (in.)		
				A	B	C
2520-2	1/2	2	0.220	1.125	1.687	0.625
2530-2	3/4	2	0.220	1.375	1.750	0.625
2531-2	3/4	2	0.260	1.375	1.750	0.625
2531-3	3/4	3	0.260	1.375	1.750	0.625
2541-2*	1	2	0.300	1.625	1.718	0.781
2542-2*	1	2	0.375	1.625	1.718	0.781
2540-3	1	3	0.225	1.625	1.718	0.781
2541-3	1	3	0.300	1.625	1.718	0.781
2540-4	1	4	0.220	1.625	1.718	0.781
2555-2	1-1/4	2	0.500	2.093	2.375	0.812

Range of cord diameter ± 0.010 in.

In many applications you have only room for one fitting but you need to run two cables, for example, proximity switches. Now you can provide strain relief and liquidtight protection with T&B's new multi-hole liquidtight strain relief fittings. With the ever increasing number of signal cables, now you have a solution to the problem of how to strain relieve multiple cables in one fitting.

*UL Listed only

Temperature Rating: 105°C

Flexible Cord and Cable Fittings

The Ranger™ Series — Liquidtight Strain Relief Fittings

The only fitting to take a 0.250 inch cable range.

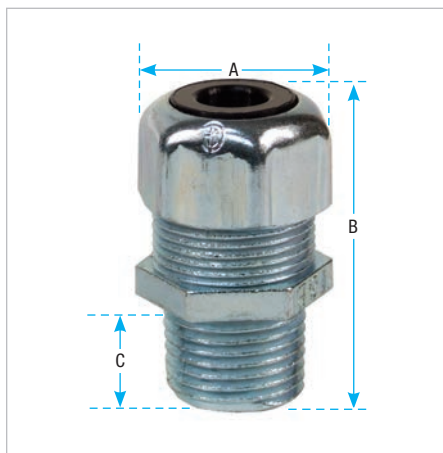
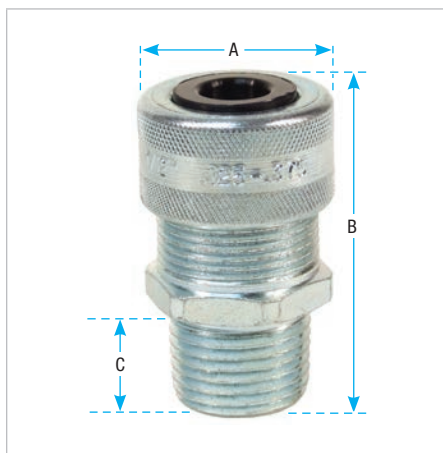
New materials and computer aided designs helped T&B develop a strain relief fitting that will take twice the cable range of ordinary strain relief fittings.

Application

A liquidtight fitting to secure flexible cord or power cable to a box or enclosure and provide strain relief.

Features

- Extended range with superior strain relief
- Reduced overall size, fits into tighter spaces
- Gland nut designed to restrict cable bending



Range

	Series	Hub Size
0.125 in. thru 0.950 in.	2920S	1/2 thru 1
	4920	
	4960	
	2920AL	
	4960AL	
	2920NM	
0.125 in. thru 0.750 in.	4960NM	1/2 thru 3/4

Standard Material/Finish

	2920S Series 4920 Series 4960 Series	2920NM Series 4960NM Series	2920AL Series 4960AL Series
Body	Steel (ST) 45° & 90° (Malleable Iron)	Nylon (Weather Stabilized)	Aluminum (ST) Malleable Iron (90°)
Gland	Steel	Nylon (Weather Stabilized)	Aluminum
Grip	Plastic	Nylon (Weather Stabilized)	Aluminum
Bushing	Santoprene	Oil Resistant Elastomer	Aluminum

Liquidtight Strain Relief Fittings – Straight



Cat. No.	Hub Size (in.)	Throat Dia.	Cord Range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920S	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921S		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922S*		9/16	0.500-0.750	1-3/8	1-3/4	5/8
2930S	3/4	13/16	0.125-0.375	1-3/8	1-25/32	3/4
2931S		13/16	0.310-0.560	1-3/8	1-25/32	3/4
2932S		13/16	0.500-0.750	1-3/8	1-25/32	3/4
2940S	1	1-1/16	0.310-0.560	1-3/8	1-3/4	13/16
2941S		1-1/16	0.500-0.750	1-3/8	1-3/4	13/16
2942S		31/32	0.700-0.950	1-5/8	1-7/8	13/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

Liquidtight Strain Relief Fittings



Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range min.-max. (in.)	Dimensions (in.)		
				A	B	C
2920	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922*		9/16	0.500-0.750	1-3/8	1-3/4	5/8
2930	3/4	13/16	0.125-0.375	1-3/8	1-25/32	3/4
2931		13/16	0.310-0.560	1-3/8	1-25/32	3/4
2932		13/16	0.500-0.750	1-3/8	1-25/32	3/4
2940	1	1-1/16	0.310-0.560	1-3/8	1-3/4	13/16
2941		1-1/16	0.500-0.750	1-3/8	1-3/4	13/16
2942		31/32	0.700-0.950	1-5/8	1-7/8	13/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

Flexible Cord and Cable Fittings

T&B Ranger™ Stainless Steel Liquidtight Cord Fittings



Pharmaceutical Processing

Food Processing

Pulp & Paper Mills

Wastewater Treatment

Saltwater Applications

Petrochemical Refining

Type 304 Stainless Steel Construction for Harsh Environments!

Until now, there has been no ideal solution for liquidtight connections of portable cord to a box or enclosure in corrosive environments. Steel fittings rust and nonmetallic fittings cannot withstand high temperatures or ultraviolet exposure.

In response to customer demand, Thomas & Betts has developed the latest addition to its high-performance line of T&B Ranger™ Cord Fittings. Made of Type 304 stainless steel, T&B Ranger™ Stainless Steel Liquidtight Cord Fittings stand up to highly corrosive environments – such as washdown areas in food and beverage or pharmaceutical processing – as well as high temperatures and UV exposure.

Like all T&B Ranger™ Liquidtight Cord Fittings, the new stainless steel fittings offer twice the cord diameter range of similar fittings, so you can do more with fewer sizes to order and stock. They form a non-slip mechanical grip, providing a liquidtight seal and the strain relief required for flexible portable cord connections.

Also available in other materials to meet all your cord-fitting needs!



2920 Series

Steel/malleable iron in straight, 45° and 90°



2920AL Series

Aluminum in straight and 90°



2920NM Series

Nonmetallic in straight and 90°

Bevelled Rubber Bushing Ensures Superior Compression and Sealing



- Each fitting covers a 0.25 in. cord diameter range – twice that of ordinary strain relief fittings
- Superior corrosion resistance in washdown areas and other corrosive environments
- Stands up to heat and UV exposure better than nonmetallic fittings
- Beveled, moisture and oil resistant synthetic rubber bushing system ensures superior compression and sealing of fitting to cord
- Bushing marked with cord range for easy identification out of box

T&B Stainless Steel Cord Fittings – 1/4 in.-3/8 in. Hub Sizes

Cat. No.	Hub Size (in.)	Cord Dia. Range (in.)	Dimensions (in.)		
			A	B	C
2918SST	1/4	0.118 - 0.256	1.000	0.250	0.625
2919SST	3/8	0.157 - 0.315	1.313	0.438	0.750

T&B Stainless Steel Cord Fittings – 1/2 in.-1 in. Hub Sizes

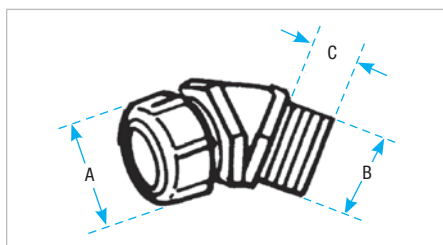
Cat. No.	Hub Size (in.)	Cord Dia. Range (in.)	Dimensions (in.)		
			A	B	C
2920SST	1/2	0.125 - 0.375	1.935	0.610	1.125
2921SST		0.310 - 0.560	1.935	0.610	1.125
2922SST*		0.500 - 0.750	2.003	0.610	1.125
2930SST	3/4	0.125 - 0.375	2.063	0.630	1.125
2931SST		0.310 - 0.560	2.063	0.630	1.125
2932SST		0.500 - 0.750	2.063	0.630	1.125
2940SST	1	0.310 - 0.560	2.178	0.785	1.500
2941SST		0.500 - 0.750	2.218	0.785	1.500
2942SST		0.700 - 0.950	2.218	0.785	1.500

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body



Flexible Cord and Cable Fittings

The Ranger™ Series

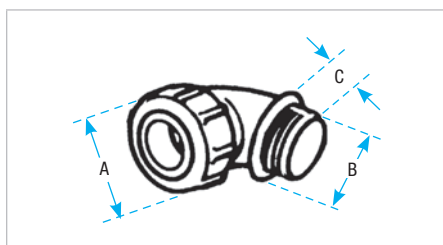


Liquidtight Strain Relief Fittings – 45° Angle



Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4920	1/2	37/64	0.125-0.375	1-1/8	1-5/16	9/16
4921			0.310-0.560	1-1/8	1-5/16	9/16
4922*			0.500-0.750	1-3/8	1-7/16	9/16
4932	3/4	25/32	0.500-0.750	1-3/8	1-7/16	5/8
4933			0.700-0.950	1-5/8	1-17/32	1-1/2

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body



Swing Radius

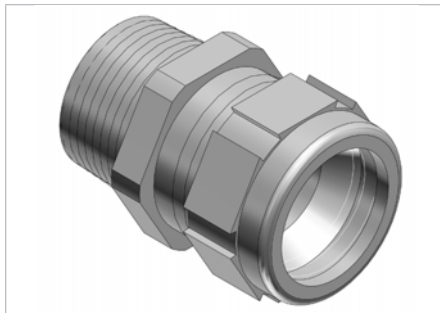
Liquidtight Strain Relief Fittings – 90° Angle



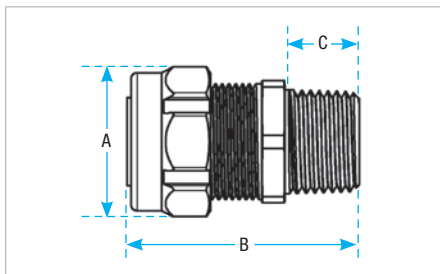
Cat. No.	Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4960	1/2	19/32	0.125-0.375	1-1/8	1-3/4	5/8
4961			0.310-0.560	1-1/8	1-3/4	5/8
4962*			0.500-0.750	1-3/8	1-24/64	5/8
4970	3/4	25/32	0.125-0.375	1-3/8	1-25/32	11/16
4971			0.310-0.560	1-3/8	1-25/32	11/16
4972			0.500-0.750	1-3/8	1-25/32	11/16

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

Flexible Cord and Cable Fittings



Body and gland nut are aluminum



Aluminum Liquidtight Strain Relief Fittings – Straight

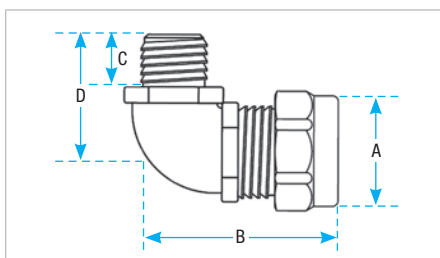


Cat. No.	Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2920AL	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8
2921AL		9/16	0.310-0.560	1-1/8	1-3/4	5/8
2922AL*		9/16	0.500-0.750	1-5/16	1-3/4	5/8
2930AL	3/4	13/16	0.125-0.375	1-5/16	1-25/32	3/8
2931AL		13/16	0.310-0.560	1-5/16	1-25/32	3/4
2932AL		13/16	0.500-0.750	1-5/16	1-25/32	3/4
2940AL	1	1-1/16	0.310-0.560	1-5/16	1-3/4	1-1/16
2941AL		1-1/16	0.500-0.750	1-5/16	1-3/4	1-1/16
2942AL		31/32	0.700-0.950	1-9/16	1-7/8	31/32

* It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through fitting body



Body: malleable iron
Gland Nut: aluminum



Aluminum Liquidtight Strain Relief Fittings – 90° Elbow



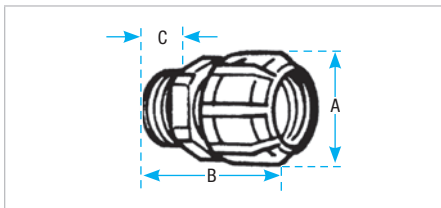
Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)			
				A	B	C	D
4960AL	1/2	9/16	0.125-0.375	1-1/8	1-3/4	5/8	1-5/16
4961AL			0.360-0.560	1-1/8	1-3/4	5/8	1-5/16
4970AL	3/4	25/32	0.125-0.375	1-5/16	1-25/32	11/16	1-15/32
4971AL			0.310-0.560	1-5/16	1-25/32	11/16	1-15/32
4972AL			0.500-0.750	1-5/16	1-25/32	11/16	1-15/32
4980AL	1	15/16	0.310-0.560	1-5/16	2-1/32	13/16	1-3/4
4981AL			0.500-0.750	1-5/16	2-1/32	13/16	1-3/4
4982AL			0.700-0.950	1-9/16	2-11/16	13/16	2

Flexible Cord and Cable Fittings

The Ranger™ Series — Nylon Cord Grip Fitting

A T&B "RANGER™" Exclusive
Smaller shape: 30% smaller envelope
Wide range: twice the cable range

- Reduced size means fittings can be placed closer together
- Wider range means one fitting can cover twice the cable range of others
- Nonmetallic means corrosion resistance



- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C

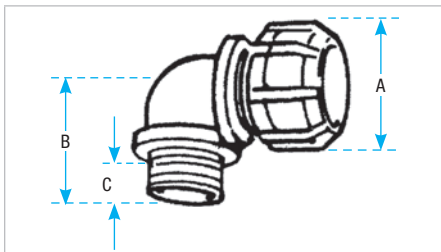
Nonmetallic Liquidtight Strain Relief Fittings – Straight



Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2920NM	1/2	9/16	0.125-0.375	1-7/32	2-1/8	5/8
2921NM			0.310-0.560	1-7/32	2-1/8	5/8
2922NM*			0.500-0.750	1-13/32	2-5/32	5/8
2930NM	3/4	3/4	0.125-0.375	1-13/32	2-3/16	5/8
2931NM			0.310-0.560	1-13/32	2-3/16	5/8
2932NM			0.500-0.750	1-13/32	2-3/16	5/8
2940NM	1	29/32	0.310-0.560	1-13/32	2-11/32	25/32
2941NM			0.500-0.750	1-13/32	2-11/32	25/32
2942NM			0.700-0.950	1-43/64	2-3/8	25/32

*It may be necessary to remove sufficient outer covering of cable to permit conductors to pass through the fitting body

- Meets Coast Guard CG293
- New Reduced Size
- Smaller Footprint



90° elbow, new reduced size, smaller footprint

- Weather Stabilized Nylon
- UL 94-V2

Nonmetallic Liquidtight Strain Relief Fittings – 90° Elbow



Cat. No.	Trade or Hub Size (in.)	Throat Diam. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
4960NM	1/2	9/16	0.125-0.375	1-7/32	1-1/4	5/8
4961NM			0.310-0.560	1-7/32	1-1/4	5/8
4970NM	3/4	3/4	0.125-0.375	1-13/32	1-3/8	5/8
4971NM			0.310-0.560	1-13/32	1-3/8	5/8
4972NM			0.500-0.750	1-13/32	1-3/8	5/8

- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Flexible Cord and Cable Fittings

Silver Grip® — TCF® Series Tray Cord® Fitting



One heck of a grip! Increased Safety for Hazardous Locations

Introducing the Silver Grip® Tray Cord® Fitting - the safe, yet cost-efficient choice for increased safety when terminating portable cord and tray cable in hazardous locations.

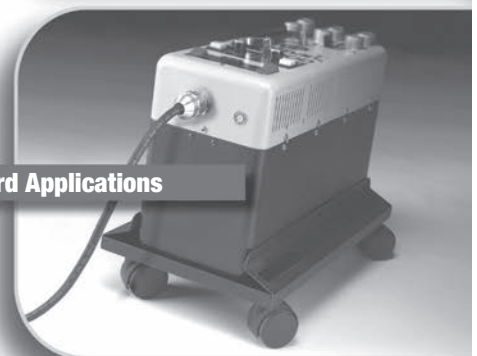
Designed for use in Class I, Gas and Vapour environments, the Silver Grip® Tray-Cord® Fitting provides efficient strain relief for cables entering enclosures and raceways, and for cords used on portable equipment.

- Corrosion-resistant, non-magnetic aluminum construction
- Tapered neoprene bushing and O-ring seal out moisture and dirt ingress
- Chuck grip provides high mechanical pull-out performance. Exceeds applicable requirements.
- Hand-tightens — no tools required
- Now available in 316 stainless steel
- 90°C temperature rating

Tray Cable Applications



Portable Cord Applications



Flexible Cord and Cable Fittings

Silver Grip® — TCF® Series Tray-Cord Fitting

Ordering Information



Cat. No Aluminum	Cat. No Stainless Steel	Hub Size NPT (in.)	Throat Diameter (in.)	Minimum Cable Dia. (in.)	Maximum Opening (in.)
TCF050-27AL	TCF050-27SS6	1/2	0.330	0.150	0.270
TCF050-40AL	TCF050-40SS6		0.540	0.250	0.400
TCF050-54AL	TCF050-54SS6		0.540	0.400	0.540
TCF050-67AL	TCF050-67SS6		0.540*	0.540	0.670
TCF050-78AL	TCF050-78SS6		0.540*	0.660	0.780
TCF075-40AL	TCF075-40SS6	3/4	0.540	0.250	0.400
TCF075-54AL	TCF075-54SS6		0.540	0.400	0.540
TCF075-67AL	TCF075-67SS6		0.780	0.540	0.670
TCF075-78AL	TCF075-78SS6		0.780	0.660	0.780
TCF075-88AL	TCF075-88SS6		0.765*	0.770	0.880
TCF100-78AL	TCF100-78SS6	1	0.980	0.660	0.780
TCF100-88AL	TCF100-88SS6		0.980	0.770	0.880
TCF100-100AL	TCF100-100SS6		0.980*	0.870	1.000
TCF100-109AL	TCF100-109SS6		0.980	0.940	1.090
TCF125-109AL	—	1-1/4	1.255	0.890	1.090
TCF125-128AL	—		1.255*	1.080	1.280
TCF125-147AL	—		1.255*	1.270	1.470
TCF150-115AL	—	1-1/2	1.470	0.890	1.150
TCF150-140AL	—		1.470	1.140	1.400
TCF150-165AL	—		1.470*	1.390	1.650
TCF200-153AL	—	2	1.896	1.190	1.530
TCF200-186AL	—		1.896	1.520	1.860
TCF200-219AL	—		2.062*	1.850	2.190
TCF250-252AL	—	2-1/2	2.466*	2.120	2.520
TCF300-278AL	—	3	2.780	2.380	2.780
TCF300-304AL	—		3.050	2.640	3.040
TCF300-330AL	—		3.068*	2.900	3.300

*When cord will not fit through body, strip cord jacket and trim fillers if required. Insert cable ensuring the outer jacket reaches the end of the bushing as shown. Tighten gland nut onto body

Applications

Tray Cable

Complies with IEC requirements for Class I, Zone 2 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

Portable Cord

Complies with IEC requirements for Class I, Zone 1 locations when used with enclosures containing no arcing or sparking devices. For enclosures with arcing or sparking devices, TCF® fittings must be used in combination with a certified Class I hazardous location sealing fitting.

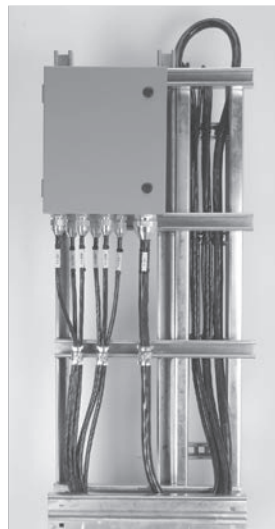
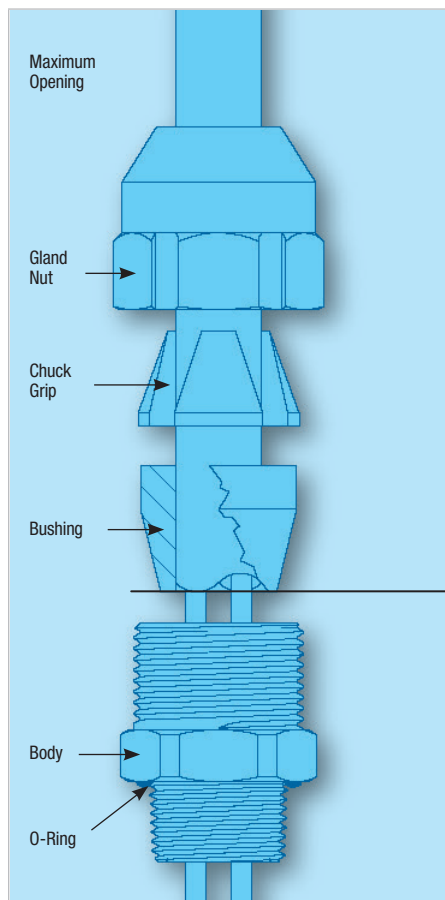
- CSA Class 4418-05 Fittings for Hazardous Locations Class I, Zone 1 Ex e II, IP66; Type 4/4X, (CSA)
- CSAus Class 4418-85 Fittings for Hazardous Locations Class I, Zone 1, A Ex e II, IP66; Type 4/4X, (CSAus)

N.B.: Tray cable is not suitable for use in Zone 1 locations.

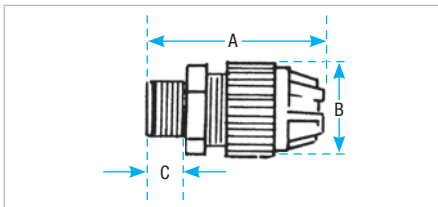
Portable cord can be used in Zone 1 applications only when installed on portable equipment.

Utilisation

- For use with unarmored cable Types suitable for use in Class I, Zone 1 (e.g.) Extra Hard Usage Cord)
- Series TCF Cable Glands, when used with Tray Cables are suitable to be installed in Class I, Zone 2/Div. 2 Classified Hazardous Locations Areas according to CEC/NEC Wiring Method, or subject to Local Inspection Authority having jurisdiction.



Flexible Cord and Cable Fittings



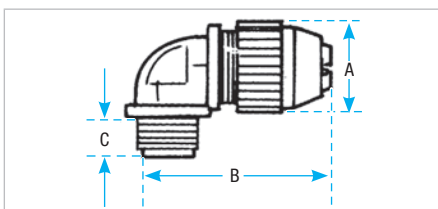
- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Black Beauty™ Liquidtight Strain Relief Fittings – Straight



Cat. No.	Trade or Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2671	3/8	0.33	0.125-0.275	2	29/32	15/32
2690	1/2	0.33	0.125-0.275	2-4/16	29/32	19/32
2672		0.55	0.250-0.400	2-19/32	19/32	19/32
2673*		0.55	0.400-0.560	2-19/32	19/32	19/32
2691*		0.54	0.560-0.690	3	1-9/10	19/32
2692*		0.54	0.660-0.780	3	1-9/16	19/32
2693	3/4	0.55	0.250-0.400	2-11/16	1-9/32	5/8
2694*		0.55	0.400-0.560	2-11/16	1-9/32	5/8
2674		0.79	0.560-0.690	3	1-9/16	5/8
2675		0.79	0.660-0.780	3	1-9/16	5/8
2696*		0.76	0.770-0.895	3-3/16	1-7/8	5/8
2676	1	0.98	0.660-0.780	3-5/16	1-7/8	25/32
2677		0.98	0.770-0.895	3-5/10	1-7/8	25/32
2678*		0.98	0.870-1.020	3-5/10	1-7/8	25/32
2699		0.98	0.890-1.090	3-3/10	2-19/32	25/32
2702		1.25	0.890-1.090	3-5/16	1-7/8	25/32
2703	1-1/4	1.25	1.080-1.280	4	2-19/32	13/16
2704		1.25	1.270-1.470	4	2-19/32	13/16
2705TB	1-1/2	1.47	0.890-1.150	4-3/16	2-31/32	13/16
2706		1.47	1.140-1.400	4-5/16	2-31/32	13/16
2707		1.47	1.390-1.650	4-5/16	2-31/32	13/16
2708		1.89	1.190-1.530	5-3/32	3-1/2	27/32
2709	2	1.89	1.520-1.860	4-29/32	3-1/2	27/32
2710*		1.89	1.850-2.190	4-29/32	3-1/2	27/32

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body



90° angle, standard size body.

- Weather Stabilized Nylon
- UL 94-V2
- Temperature Rating: -34 °C to +105 °C
- Meets Coast Guard CG293

Black Beauty™ Liquidtight Strain Relief Fittings – 90° Elbow



Cat. No.	Trade or Hub Size (in.)	Throat Dia. (in.)	Cord Range (in.)	Dimensions (in.)		
				A	B	C
2680	3/8	0.33	0.125-0.275	0.90	1.8	0.460
2681	1/2	0.55	0.250-0.400	1.27	2.5	0.610
2682*		0.55	0.400-0.560	1.27	2.5	0.610
2683	3/4	0.78	0.560-0.690	1.57	2.8	0.610
2684		0.78	0.660-0.780	1.57	2.8	0.610
2688	1	0.98	0.560-0.690	1.89	3.0	0.770
2685		0.98	0.660-0.780	1.89	3.2	0.770
2686		0.98	0.770-0.895	1.89	3.2	0.770
2687*		0.98	0.870-1.020	1.89	3.2	0.770

* Remove sufficient outer covering of cable to permit conductors to pass thru fitting body.
90° angle, standard size body.

Portable Cord and Cable Fittings

WMG-PC Series Wiremesh Grips for Portable Cord

T&B Wiremesh grips are ordered separately and fit with your existing inventory of Ranger™ fittings and liquidtight strain relief fittings. There's no need to duplicate inventory.



Wiremesh grips support the following Liquidtight Cord Fittings Series.



2920 Series

2920AL Series

2516 Series

Application

- Provides high gripping strength for adequate cable support and strain relief without damage to the cable sheath
- Compression of a tapered neoprene bushing, assures the watertight integrity of the fittings

Cord and Cable Type

- S, SO, SV, ST, STD, SJ, SJO, SJT, SJTO, SVD

How to select proper wiremesh grip:

1. Determine O.D. of portable cord e.g. .200
2. Determine size of knockout or threaded hub e.g. 1/2 in.
3. Select Cat. No. of strain relief fitting e.g. 2520, 2920AL
4. Match up O.D. with grip range and strainrelief to determine Cat. No. of Wiremesh Grip (e.g. 0.200 + 2520 = WMP-PC1)

Features

- Prevents severe cord bends and pullouts
- Used in aluminum and/or steel fittings

Material

Wiremesh made of stainless steel. Retaining rings made of aluminum.

Environment Classification

- Ordinary Locations

Range

0.187 – 3.220



Wiremesh Grips for Portable Cord



Cat. No.	Grip Range (in.)	Strain Relief Fitting							
		Straight		45°		90°			
		Ranger™ Steel	Ranger™ Aluminum	T&B Steel	Ranger™ Malleable Iron	T&B Steel	Ranger™ Malleable Iron	Ranger™ Aluminum	T&B Steel
WMG-PC1	0.187-0.250	2920S	2920AL	2520	4920	2200	4960	4960AL	2267
WMG-PC2	0.250-0.375	2920S	2920AL	2521	4920	2201	4960	4960AL	2268
WMG-PC3	0.375-0.500	2921S	2921AL	2522	4921	2202	4961	4961AL	2269
WMG-PC4	0.500-0.625	2922S	2922AL	2524	4922	2204	4962	—	2250
		2932S	2932AL	2534	4932	2209	4972	4972AL	2273
		2941S	2941AL	2544	4941	2214	4981	4981AL	2255
WMG-PC5	0.625-0.750	2922S	2922AL	2525	4922	2205	4962	—	2251
		2932S	2932AL	2535	4932	2210	4972	4972AL	2274
		2941S	2941AL	2545	4941	2215	4981	4981AL	2256
WMG-PC6	0.187-0.250	2930S	2930AL	2530	4930	2206	4970	4970AL	2252
WMG-PC7	0.250-0.375	2930S	2930AL	2531	4930	2207	4970	4970AL	2271
WMG-PC8	0.375-0.500			2541					
		2931S	2931AL	2532	4931	2208	4961	4961AL	2272
WMG-PC9	0.750-0.875	2940S	2940AL	2542	4940	2213	4980	4980AL	2254
				2536		2211			2253
WMG-PC10	0.875-1.000			2546	4942	2216	4982	4982AL	2275
				2547		2217			2276
WMG-PC11	0.875-1.000			2548		2218			2257
				2558		2220			2277
WMG-PC12	1.000-1.125			2548		2218			2257
				2558		2220			2277
				2549		2219			2258
WMG-PC13	1.125-1.250			2559		2221			2278
				2549			2258	2258	2219
				2559		2221			2278
WMG-PC14	1.125-1.250			2556			2279	2279	2222
				2563		—			2282
WMG-PC15	1.250-1.375			2564		—			2283
				2256		2222			2279
WMG-PC16*	1.375-1.500			2564		—			2283
				2557		2223			2280
WMG-PC17*	1.125-1.250			2573		—			2284

Cat. No.	Grip Range (in.)	Strain Relief Fitting	
		Straight T&B Steel	90° T&B Steel
WMG-PC18*	1.250-1.375	2573	2284
WMG-PC19*	1.375-1.500	2565	2285
WMG-PC20*	1.500-1.625	2574	
		2565	2285
WMG-PC21*	1.625-1.750	2575	2286
WMG-PC22*	1.750-1.875	2575	2286

*Replacement Gland Nut supplied with these catalogue numbers only

Portable Cord and Cable Fittings

Nonmetallic Cable Glands — Low Profile for Tight Spots



Sturdy Nylon 6 for strong, lightweight construction. Grey colour shown.

T&B Nylon Cable Glands have a sturdy cable sealing mechanism which results in superior strain relief. The compact size ensures quick and easy installation in cramped spaces. The nonmetallic construction provides excellent corrosion, chemical and impact resistance. The glands have long threads and locknuts are available.

- Halogen free
- Flame retardant material rated UL 94-V0
- Rated IP 68 5 BAR, suitable for NEMA 4 enclosures
- UL Listed, CSA listed for certain ranges of cable
- Working Temperatures: -30°C (-86°F) to +80°C (176°F) Continuous, 150°C (276°F) Intermittent
- Meets VDE ratings

Nonmetallic Cable Glands



Cat. No.	Hub Size (in.)	Colour	Cable Range		Lenght of Thread		USE T&B Locknut Cat. No.	Unit pkg.	Std. pkg.
			in.	mm	in.	mm			
NPT Threads									
CC-NPT38-B	3/8	Black	0.197 - 0.394	5-10	0.590	15	CI-1703PL*	50	250
CC-NPT38-G	3/8	Grey	0.197 - 0.394	5-10	0.590	15	CI-1703PL*	50	250
CC-NPT12-B	1/2	Black	0.394 - 0.551	10-14	0.590	15	LN501**	50	250
CC-NPT12-G	1/2	Grey	0.394 - 0.551	10-14	0.590	15	LN501**	50	250
CC-NPT34-B	3/4	Black	0.512 - 0.709	13-18	0.590	15	LN502**	25	100
CC-NPT34-G	3/4	Grey	0.512 - 0.709	13-18	0.590	15	LN502**	25	100
CC-NPT1-B	1	Black	0.709 - 0.984	18-25	0.709	18	LN503**	20	100
CC-NPT1-G	1	Grey	0.709 - 0.984	18-25	0.709	18	LN503**	20	100
ISO/Metric Threads									
CC-ISO-16-G	M16	Grey	0.197 - 0.394	5-10	0.394	10	LN-ISO16-G	50	250
CC-ISO-20-G	M20		0.236 - 0.473	6-12	0.590	15	LN-ISO20-G	50	250
CC-ISO-25-G	M25		0.512 - 0.709	13-18	0.590	15	LN-ISO25-G	25	250
CC-ISO-32-G	M32		0.709 - 0.984	18-25	0.590	15	LN-ISO32-G	20	250
CC-ISO-40-G	M40		0.748 - 1.100	22-32	0.709	18			
PG Threads									
CC-PG7-G	7	Grey	0.118 - 0.256	3-6.5	0.315	8	LN-PG7-G	50	200
CC-PG9-G	9		0.157 - 0.315	4-8	0.315	8	LN-PG9-G	50	200
CC-PG11-G	11		0.197 - 0.394	5-10	0.315	8	LN-PG11-G	25	100
CC-PG135-G	13-1/2		0.236 - 0.473	6-12	0.354	9	LN-PG135-G	25	100
CC-PG16-G	16		0.394 - 0.551	10-14	0.394	10	LN-PG16-G	25	100
CC-PG21-G	21		0.512 - 0.709	13-18	0.433	11	LN-PG21-G	10	50
CC-PG29-G	29		0.709 - 0.984	18-25	0.433	11	LN-PG29-G	10	50
CC-PG36-G	36		0.867 - 1.260	22-32	0.512	13	LN-PG36-G	10	50

* Not CSA Certified

** Only available in grey

Portable Cord and Cable Fittings

Metric PG-to-N.P.T. Thread Adapters



Cat. No.	N.P.T. Thread (mating) (in.)	Thread (at housing)
PG11-38	3/8	PG11
PG16-50	1/2	PG16
PG21-75	3/4	PG21
PG29-100	1	PG29
PG29-125	1-1/4	PG29
PG36-125	1-1/4	PG36
PG36-150	1-1/2	PG36

Metric Two-Screw Clamp Fittings



Style may vary depending on size

Cat. No.	Cable O.D. (in.)		Thread (at housing)
	Min.	Max.	
CC11-38	0.400	0.470	PG11
CC11-38P*	0.250	0.325	PG11
CC135-50	0.400	0.535	PG13.5
CC16-50	0.455	0.625	PG16
CC21-75	0.513	0.815	PG21
CC29-100	0.800	0.175	PG29
CC36-125	1.050	0.450	PG36
CC42-150	1.500	0.800	PG42

* Plastic

Metric Cord Grip Fittings



Standard European style

Cat. No.	Cable O.D. (in.)		Thread (at housing)
	Min.	Max.	
CG11-38	0.200	0.470	PG11
CG11-38P*	0.325	0.340	PG11
CG135-50	0.285	0.545	PG13.5
CG16-50	0.285	0.625	PG16
CG21-75	0.395	0.790	PG21
CG29-100	0.780	0.060	PG29
CG36-125	0.960	0.375	PG36
CG42-150	1.630	0.650	PG42

* Plastic

Conduit Entry Blind Plug



Cat. No.	Thread (at housing)
CXP722	PG13.5
CXP723	PG16
CXP724	PG21
CXP725	PG29
CXP726	PG36
CXP727	PG42

Service Entrance Cable Fittings

Suggested Specifications for Service Entrance Fittings

- All service fittings shall be approved for the purpose by a nationally recognized testing laboratory, inspection agency, or product evaluation organization.
- Where service raceway consists of a rigid metal conduit, intermediate metal conduit, electrical metallic tubing or where service entrance cable is used as service conductors a suitable raintight service head conforming to Federal Standard W-C-586 shall be provided.
- Service raceway shall be securely fastened in place to the supporting surface at intervals as specified by the Code using suitable straps and spacers; straps and spacers shall be of malleable

iron or steel construction, hot dipped galvanized or electro zinc plated conforming to Canadian Standards Association Standard C22.2 No. 18.4 and as manufactured by Thomas & Betts: Series 1275 or 4175 straps and Series 1350 spacers; aluminum straps or spacers such as Series 1275AL and Series 1350AL may be substituted when installed in environmental conditions that are more than normally corrosive.

- For grounding and bonding of service raceway, end of raceway or the terminating fitting shall be equipped with bonding locknuts and insulated metallic grounding and bonding bushing as required.

Bonding locknuts shall be of hardened steel or malleable iron construction, electro zinc plated, and provided with hardened bonding screws as manufactured by Thomas & Betts, Series 106 bonding locknuts.

Insulated metallic grounding and bonding bushing shall be of malleable iron/steel construction, electro zinc plated and assembled with an insulator listed or certified for 150°C/302°F service as manufactured by Thomas & Betts, Series 3870.



**Series 4175
Pipe Strap (EMT)**



**Series 1275/1275AL Pipe Strap
(Rigid Metal Conduit & I.M.C.)**



**Series 1350/1350AL Pipe Spacer
(Rigid Metal Conduit I.M.C. & EMT)**



**Series 3870
Bonding & Grounding Bushing—
Insulated**



**Series 106
Bonding Locknut**

Service Entrance Cable Fittings

Suggested Specifications for Service Entrance Fittings (cont'd)

- Where service entrance cable is used as overhead service conductors and code requires use of a service head, entrance caps shall be installed; caps shall be cast metal type of suitable ferrous or non ferrous metal equipped with thermoset insulators and proper knockout openings; when installed with proper drip loop, caps must assure raintight conditions.
- Terminating fittings for service entrance cable (Type SE or USE) or underground feeder and branch — circuit cable (Type UF) in locations where exposed to intermittent or constant moisture or in dry locations and subjected to mechanical strain shall be of watertight strain relief type as manufactured by Thomas & Betts, Series 2111 or 2116-TB; fittings shall be constructed of ferrous or non ferrous metal and equipped with taper-threaded hub, beveled moisture resistant/ oil resistant synthetic rubber bushing. In dry locations, nylon insulated two screw type fittings of malleable iron/steel construction, electro zinc plated inside and outside including threads, such as Series 3302M manufactured by Thomas & Betts may be substituted.
- Where service entrance cable is terminated into a threadless opening using hub type fittings, a gasket shall be provided between the outside of box or enclosure and fitting shoulder; gasket shall be of moisture resistant/oil resistant synthetic rubber type adequately protected by and permanently retained to a metallic retainer as manufactured by Thomas & Betts, Series 5262 or 5302.
- Service entrance cable shall be adequately supported at intervals enumerated in code using cable straps conforming to requirements of CSA Standard C22.2 No.18.4; cable straps shall be of malleable iron/steel construction, hot dipped galvanized or electro zinc plated as manufactured by Thomas & Betts, Series 1341.
- At the point where the service cable enters the building, a suitable sill plate shall be provided; sill/wall plate shall be sealed to assure raintight conditions.



Series 2111
Service Entrance Cable Fitting



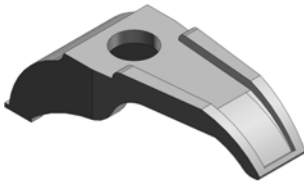
Series 2116-TB
Underground Feeder Cable Fitting



Series 3302M
Two Screw Fitting (Insulated)



Series 5262, 5302
Sealing Gasket



Series 1341
Cable Strap

Service Entrance Cable Fittings

Application

- To connect service entrance cables to a meter box or an enclosure

Features

- Neoprene bushing, resists oil and water; grips cable the full length of the bushing providing adequate strain relief without damaging outer jacket (A)
- Taper-threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)
- Suitable for Type USE I75, USE I90 and USE B90 (CEC Table 19) Service Entrance Cable

Standard Material/Finish

Body	Zinc Die Cast/As cast
Gland	Steel/Electro Zinc Plated & Chromate Coated
Retaining Ring	Stainless Steel/Passivated
Bushing	Neoprene/As molded

Range

- Oval (Flat) Cable Size
0.260 x 0.500 thru 1.062 x 1.765
- Type USE Cable Size
3 #12 thru 3-4/0 AWG Conductors
- Hub Size
1/2 in. thru 2 in. NPT (taper pipe threads)

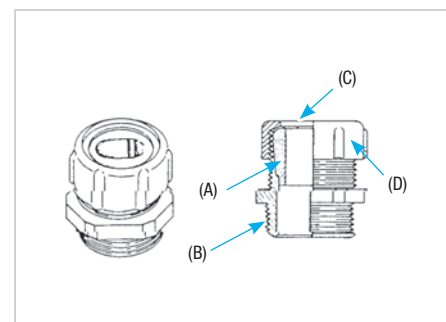
Listing/Certification

CEC Rule 6-300 (1) add (b) use underground service entrance with mechanical protection as per CEC Rule 12-012

Conformity

UL514B, NEMA FB-1, Federal Standard H-28 (Threads), NFPA70-2009 (ANSI)
CSA C22.2 No. 18.3

(Type SE/Type USE)



2111 Series

Underground Feeder Cable Fittings

Application

- To connect underground feeder cables to a box or an enclosure

Features

- Neoprene bushing resists oil and water; grips cable the full length of the bushing providing adequate strain relief without damaging outer jacket (A)
- Taper-threaded body (B)
- Stainless steel retaining ring protects cable jacket against abrasion; reduces installing torque effort (C)
- Rugged ribbed steel gland construction (D)

Standard Material/Finish

Body	Zinc Die Cast/As cast
Gland	Steel/Electro Zinc Plated & Chromate Coated
Retaining Ring	Stainless Steel/Passivated
Bushing	Neoprene/As molded

Range

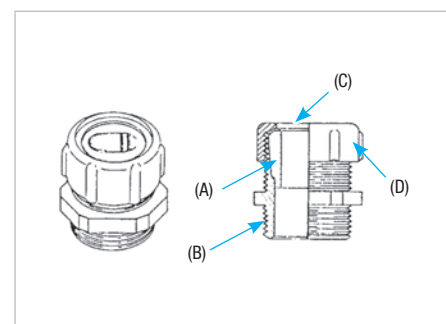
- Oval (Flat) Cable Size
0.235 x 0.500 thru 0.260 x 0.740
- Hub Size 1/2 in. thru 1 in. NPT (tapered pipe threads)

Listing/Certification

CEC Rule 30-1004 (d) Wiring method, underground, where deviation has been allowed for permanent outdoor floodlighting installation.

Conformity

UL514B, NEMA FB-1, Federal Standard H-28 (Threads), NFPA70-2009 (ANSI)
CSA C22.2 No. 18.3



2116-TB Series

Service Entrance Cable Fittings



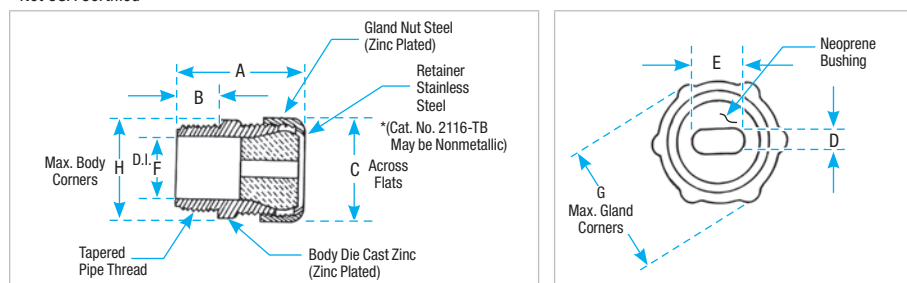
Oil and water resistant neoprene bushing is especially designed for sealing around underground feeder cable. Stainless steel retaining ring provides a bearing surface for the glandnut and eliminates cable twist. Ribbed gland nut is strong and easily tightened with a wrench to make a connection of high strength.

Underground Liquidtight Feeder Cable Fittings



Cat. No.	Hub Size (in.)	Cable Opening (in.)	Dimensions (in.)									
			A	B	C	D		E		F	G	H
						min.	max.	min.	max.			
2116-TB*	1/2	0.235 x 0.500	1-11/16	5/8	1	0.060	0.235	0.350	0.500	9/16	1-1/8	1-1/8
2237	3/4	0.230 x 0.430	1-9/16	9/16	1-7/32	0.080	0.230	0.320	0.430	13/16	1-3/8	1-3/8
2238	3/4	0.235 x 0.465	1-9/16	9/16	1-7/32	0.050	0.235	0.340	0.465	13/16	1-3/8	1-3/8
2239	3/4	0.240 x 0.685	1-9/16	9/16	1-7/32	0.060	0.240	0.500	0.685	13/16	1-3/8	1-3/8

* Not CSA Certified

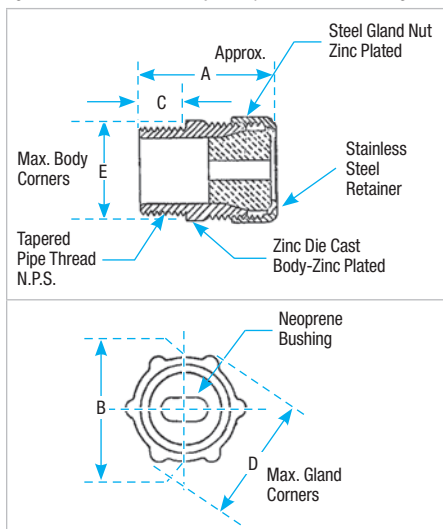


A design with two tapers inside the body — a slow one and a fast one — permits the stocking of fewer fittings for varied cable sizes and allows maximum take-up. The tapered neoprene bushings are resistant to oil, sunlight, and water. Hex gland and body take the same wrench opening and a stainless steel slip ring prevents cable from twisting as gland ring is being tightened. Threads on the body are tapered for water sealing.

Watertight Fittings for Oval Cables



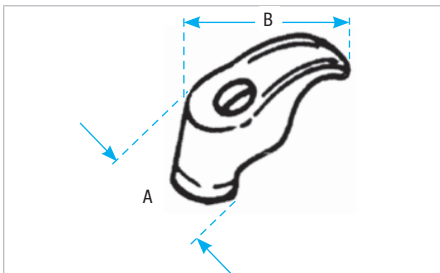
Cat. No.	Hub Size (in.)	Dimensions (in.)					Overall Cable Range	
		A	B	C	D	E	min. (in.)	max. (in.)
2111	1/2	1-3/4	1-1/4	5/8	1-3/8	1-3/8	0.380 x 0.520	0.420 x 0.560
2232	3/4						0.260 x 0.500	0.385 x 0.600
2233		1-11/16	1-1/4	9/16	1-3/8	1-3/8	0.375 x 0.625	0.500 x 0.750
2234							0.490 x 0.675	0.555 x 0.800
2432	1						0.260 x 0.500	0.385 x 0.600
2433		1-11/16	1-1/4	9/16	1-3/8	1-3/4	0.375 x 0.625	0.500 x 0.750
2434							0.430 x 0.675	0.555 x 0.800
2438	1	1-3/4	1-1/2	25/32	1-11/16	1-3/4	0.440 x 0.730	0.565 x 0.855
2439							0.510 x 0.850	0.635 x 0.975
2442	1-1/4						0.510 x 0.850	0.635 x 0.975
2443		2-1/16	1-15/16	5/8	2-1/16	2-1/8	0.490 x 0.900	0.640 x 1.050
2446							0.565 x 0.965	0.750 x 1.150
2454	1-1/2	2-1/4	2-1/8	11/16	2-5/16	2-5/16	0.655 x 1.090	0.840 x 1.275
2447							0.695 x 1.240	0.880 x 1.425
2448	2						0.790 x 1.390	0.968 x 1.500
2449		2-3/8	2-5/8	11/16	2-3/4	2-13/32	0.850 x 1.550	1.062 x 1.765
2450							1.700 x 1.050	1.820 x 1.190



Service Entrance Cable Fittings



Each strap takes a wide range of sizes because of the rocking action of the foot. Hole is for 1/4 in. screw. Malleable iron, hot dipped galvanized construction.



Cable Straps



Cat. No.	Wire Size	Dimensions (in.)	
		A	B
1341-TB	2-#10	5/8	1-1/8
1344	3-#6 or 3-#8	5/8	1-15/16
1345*	3-#4 or 3-#2	13/16	1-59/64
1346	3-1/0	3/4	2-7/16
1347	3-4/0	3/4	2-25/32

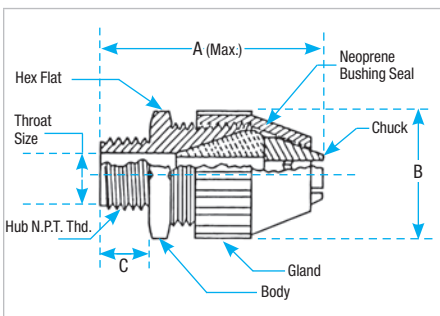
* Steel, hot dipped galvanized



Nylon UF Cable Fittings for Corrosive Environments



Cat. No.	Hub Size (in.)	UF Cable Range (in.)		Dimensions (in.)		
		min.	max.	A max.	B ± .060	C ± .060
2827	1/2	0.550 x 0.280	0.400 x 0.190	2.60	1.270	0.600
2828	3/4	0.675 x 0.280	0.525 x 0.190	3.00	1.570	0.620
2829	3/4	0.775 x 0.280	0.625 x 0.190	3.00	1.570	0.620



- Tapered threaded hub
- Liquidtight and dust-tight; hand tightens — no tools required
- Corrosion and weather resistant nylon for outdoor and indoor applications

Liquidtight Flexible Metal Conduit Fittings

Specifications

Ref. CEC Rule 12-1300

Liquidtight flexible metal conduit is a raceway of circular cross section having an outer liquidtight nonmetallic, sunlight resistant jacket over a flexible metal core.

Liquidtight flexible metal conduit is permitted to be used for exposed or concealed work, in dry, damp or wet locations indoors and outdoors. With the exception of Class I Division I locations, liquidtight flexible metal conduit is considered an acceptable wiring method in hazardous locations Class 1 Division 2 (CEC Rule J18-152(6)).

Liquidtight flexible metal conduit is not permitted where subjected to mechanical injury. The conduit is not permitted to be used underground or embedded in cinder fill or concrete. It cannot be used as a general purpose raceway.

Use of liquidtight conduit is not permitted where any combination of ambient or conductor temperature will produce temperature in excess of that for which the jacket is rated or in locations where flexing at low temperature will injure jacket. Liquidtight flexible metal conduit is not permitted for conductors over 600 volts.

Liquidtight flexible conduit is available in 3/8 in. through 6 in. trade size. Conduit is constructed with galvanized steel or aluminum core, regular or extra flex. Outer jacket is available for a variety of applications, e.g. oil resistant where exposed to cutting oils and for service temperature ranging from -50°C to 150°C.

Listed and certified conduits are constructed of galvanized steel core and thermoplastic jacket rated for maximum service temperature of 60°C and suitable for exposure to mineral oils but not to gasoline and similar solvents.

Conduit is required to be supported adequately, and bending is restricted to 360 degrees total.

Please refer to the following for further details and complete information:

1. UL 360...Safety Standards for Liquidtight Flexible Steel Conduit
2. UL 514A and 514B, Safety Standards for Outlet Boxes and Fittings
3. W-F-406...Federal Specification: Fittings for Cable, Power, Electrical and Conduit, Metal, Flexible
4. NEMA FB-1...Standards Publication: Fittings, Cast Metal Boxes and Conduit Bodies for Conduit, Electrical Metallic Tubing and Cable
5. EMP-1...JIC Electrical Standards for Mass Production Equipment
6. EGP-1...JIC Electrical Standards for General Purpose Machine Tools
7. CEC Section 12-1300...Wiring Methods (Liquidtight Metal Conduit)
8. CSA C22.2 No. 56...Safety Standard for Flexible Metallic Conduit and Liquidtight Flexible Metal Conduit
9. CSA C22.2 Nos. 18.1 and 18.3...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Liquidtight Flexible Metal Conduit Fittings

Suggested Specifications for Liquidtight Flexible Metal Conduit Fittings

- Liquidtight Flexible Metal conduit used shall be of the type with galvanized steel core inside and outside and outer thermoplastic jacket suitable for the ambient environmental conditions. Jacket shall be positively locked to core to prevent sleeving. Where used as an equipment grounding conductor, the conduit shall conform to applicable standards UL 360/CSA C22.2 No. 56.
- Flexible conduit when installed shall have sufficient slack to avoid sharp flexing and straining due to vibration and thermal expansion/constriction. Conduit shall be installed in such a manner that liquids will tend to run off the surface instead of draining toward the fittings.
- Where liquidtight flexible metal conduit terminates into a threaded or threadless opening, the conduit shall be assembled with approved liquidtight fittings. Fittings used shall be reusable type of malleable iron/steel construction, electro-zinc plated inside and outside, furnished with nylon insulated throat and taper threaded hub as manufactured by Thomas & Betts, Series 5331.

Approved fittings installed shall be:

- (1) Designed to prevent sleeving, assure plastic (raceway jacket) to plastic (gasket) seal.

- (2) Equipped with grounding device to assure ground continuity irrespective of raceway core construction. Grounding device if inserted into raceway and directly in contact with conductors shall have rolled over edges for sizes under 5 inches.

At the point of flexing (i.e. where raceway leaves fitting) the thermoplastic raceway jacket shall not be permitted to be in direct contact with metal.

- Where liquidtight flexible metal conduit is terminated into a threadless opening using a threaded hub fitting such as Thomas & Betts Series 5331, a suitable moisture resistant/oil resistant synthetic rubber gasket such as Thomas & Betts Series 5262 shall be provided between the outside of box or enclosure and fitting shoulder. Gasket shall be adequately protected by and permanently bonded to a metallic retainer.
- Where liquidtight flexible metallic raceway is installed in outdoor or indoor locations and is exposed to environmental conditions that are more than normally corrosive to exposed surfaces, PVC coated liquidtight flexible metal conduit fittings such as Series 3321 manufactured by Thomas & Betts shall be used. Fittings shall be coated with a nominal thickness of 0.040

PVC and must meet the general requirements for liquidtight flexible metal conduit fittings indicated above.

- Liquidtight fittings required to couple threaded end of a fitting or pipe where rotation of fitting or pipe is limited or restricted shall be reusable type of malleable iron/steel construction, electro-zinc plated inside/outside with taper threaded hub as manufactured by Thomas & Betts, Series 41. Fittings shall be equipped with a moisture resistant/oil resistant synthetic rubber gasket. Metal to metal seal or metal to thermoplastic seal for this application shall be considered unacceptable.



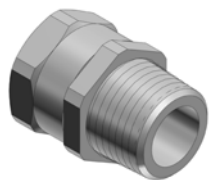
Series 5331; Series 5231AL
Liquidtight Flexible Metal
Conduit Fittings



Series 5262
Sealing Gasket



Series 3321
PVC Coated Liquidtight Flexible
Metal Conduit Fittings



Series 41
Liquidtight Union



5331GR Series
External Bonding



5331-PT Series
Quick-Connect™ Liquidtight Fittings

Liquidtight Flexible Metal Conduit Fittings

Specifications

Application

- Used where flexible metal raceway is installed in outdoor or indoor locations where exposed to continuous or intermittent moisture
- To positively bond conduit to box or enclosure

Features

- Ability to install quickly with low torque effort
- Ground cone design offers following advantages
 - (1) Compresses metallic convolutions; provides high quality ground contact with low impedance and high raceway holding power (A)
 - (2) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (B)
 - (3) Rolled over edge protects conductors (C)

Sealing ring design has following exclusive features:

- (1) Grips and seals at leading and trailing edge — will not abrade raceway jacket (D)
 - (2) Provided with grooves on inside diameter for anti-sleeving (E)
 - (3) Shoulders on both ends for extra sealing (F)
 - (4) Symmetrical shape assures foolproof assembly
- Can be disconnected and reused
 - Watertight/oiltight installation at box or enclosure termination is assured by
 - (1) External taper thread hub on 5331 Series and use of sealing gasket 5262 Series (G)
 - (2) Captive sealing 'O' ring on 5361 Series (H)
 - (3) Taper tapped hole on 5271 Series
 - For Hazardous Location applications, please refer to CEC Section 18

- CEC Rule 12-1306 stipulates "a separate bonding conductor shall be installed in liquidtight flexible conduit in accordance with section 10
- 1/2 in. and 1-1/4 in. sizes Laboratory tested to carry ground fault current of up to 1000 amps RMS with duration of fault current 3 cycles
- Conforms with JIC requirements
- Available with imperial, I.S.O. and PG threaded hub

Standard Material 5331-5361-5271 Series

Body, Gland, Locknut and Ground Cones: All steel or malleable iron.

Sealing Ring and Insulator:
All thermoplastic rated min. -20°C max. 105°C

Sealing Gasket: Stainless Steel and Buna N

5231 AL Series

All Copper-free Aluminum (non-insulated)

Standard Finish 5331-5361-5271 Series

Electro Zinc Plated and Chromate Coated

5231 AL Series

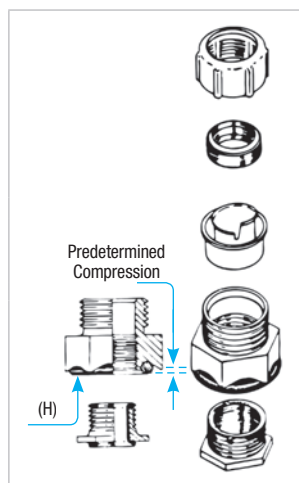
Copper-free Aluminum

Range

- 5331 Series 3/8 in. thru 6 in. conduit
- 5341 Series 3/8 in. thru 4 in. conduit
- 5351 Series 3/8 in. thru 4 in. conduit
- 5361 Series 3/8 in. thru 4 in. conduit
- 5271 Series 3/8 in. thru 1-1/4 in. conduit
- 5231 AL Series 3/8 in. thru 4 in. conduit
All hubs provided with taper pipe threads (NPT)

Conformity

UL 514B
CSA C22.2 No. 18.3
NEMA FB-1
NFPA 70-2008 (ANSI)
JIC EGP1, JIC EMP1
Federal Specification W-F-406
Federal standard H-28 (Threads)



5361 Series
Chase Style



5331 Series
5231 AL Series



5271 Series



5361 Series

5341 Series...
same as 5331,
except 45° Fittings

5351 Series...
same as 5331,
except 90° Fittings

Liquidtight Flexible Metal Conduit Fittings

High Temperature Flexible Metal Liquidtight Fittings



T&B HT-Series Liquidtight Fittings are available straight, 45°, and 90°

Suggested Specification

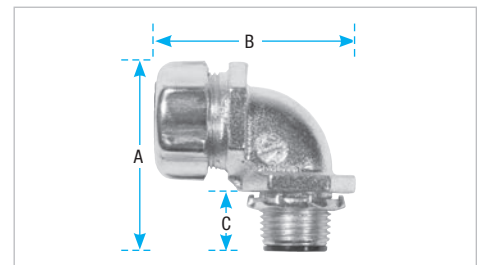
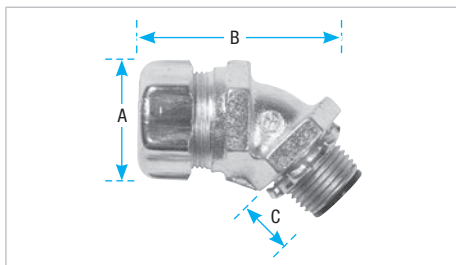
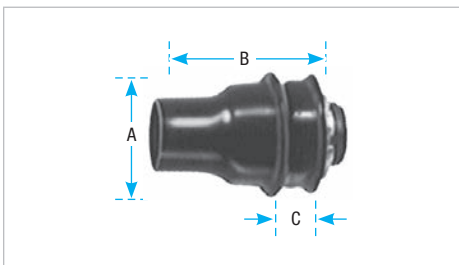
Where Liquidtight flexible metal fittings are required in high temperature environments up to 150°C:

- Fitting's body, gland, locknut and ground cone shall be constructed from steel or malleable iron, electro-zinc plated and chrome coated for corrosion protection
- Fitting's sealing ring and throat insulator will be molded from high temperature nylon suitable for temperatures up to 150°C and a minimum UL flammability rating of UL94-V2
- The fitting shall be constructed to accept high temperature flexible metal liquidtight conduit rated to 150°C (works with our ATX Series conduit, p. G11)
- The fitting shall have a plastic throat insulator to protect conductors
- The fitting shall have a steel ground cone to:
 - provide high quality ground contact

- single helical thread for easy installation into conduit

- rolled over edge to protect conductors

- The fitting shall have a plastic sealing ring to:
 - grip and seal at leading and trailing edge (double bevel up to 2 in.) of conduit jacket
 - provide a watertight/oiltight seal
- The fittings shall be able to terminate the conduit in either a threaded or threadless opening
- For applications where termination into a threaded opening is required the fitting shall have external tapered NPT threads
- For applications where termination into a threadless opening is required use an acceptable sealing ring
- Fittings shall conform to UL 514B
- Accepted Manufacturers:
 - Thomas & Betts — 5331-HT straight Series, 5341-HT 45° Series, 5351-HT 90° Series; 5262 sealing ring Series



Straight Liquidtight Fittings

Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C
5331-HT	3/8	1-5/32	1-1/2	9/16
5332-HT	1/2	1-3/8	1-9/16	9/16
5333-HT	3/4	1-21/32	1-5/8	9/16
5334-HT	1	1-7/8	2-1/16	3/4
5335-HT	1-1/4	2-9/32	2-1/2	13/16
5336-HT	1-1/2	2-22/32	2-11/16	13/16
5337-HT	2	3-1/4	3-1/16	7/8
5338-HT	2-1/2	3-3/4	4-1/8	1
5339-HT	3	4-1/2	4-1/4	1
5340-HT	4	5-1/2	4-1/2	1-1/8

45° Liquidtight Fittings

Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C
5341-HT	3/8	1-5/32	1-9/16	9/16
5342-HT	1/2	1-3/8	1-7/8	9/16
5343-HT	3/4	1-21/32	2-1/8	9/16
5344-HT	1	1-7/8	2-1/4	3/4
5345-HT	1-1/4	2-9/32	2-3/4	13/16
5346-HT	1-1/2	2-22/32	2-3/8	13/16
5347-HT	2	3-1/4	3-7/8	7/8

90° Liquidtight Fittings

Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C
5351-HT	3/8	1-5/32	1-3/8	9/16
5352-HT	1/2	1-3/8	1-9/16	9/16
5353-HT	3/4	1-21/32	1-3/4	9/16
5354-HT	1	1-7/8	2-3/16	3/4
5355-HT	1-1/4	2-9/32	2-3/4	13/16
5356-HT	1-1/2	2-22/32	2-15/16	13/16
5357-HT	2	3-1/4	3-7/16	7/8

Please note: There is no CSA and UL Standards applicable for High Temperature Fittings or Conduits. Therefore neither HT Fittings nor HT Conduit bear these Certifications/Listings.

Liquidtight Flexible Metal Conduit Fittings

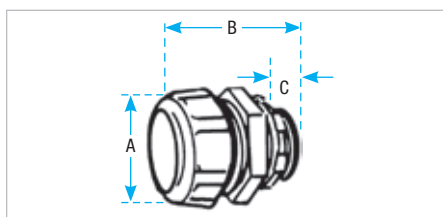
For Control and Power Cable Applications



Cat. No.	Hub Size (in.)	Conduit Size (in.)	Dimensions (in.)		
			A	B	C
5229*	1/4	1/4	27/32	1-3/8	15/32
5330*	3/8	5/16	63/64	1-3/8	15/32

* UL and CSA not applicable

Straight Fittings

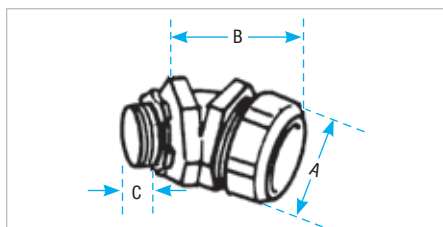


Cat. No.			Conduit Size (in.)	Dimensions (in.)		
Insulated	Non-insulated	Aluminum		A	B	C
5331**	5231	5231AL	3/8	1-5/32	1-1/2	9/16
5332	5232	5232AL	1/2	1-3/8	1-9/16	9/16
5333	5233	5233AL	3/4	1-21/32	1-5/8	9/16
5334-TB	5234-TB	5234AL	1	1-7/8	2-1/16	27/32
5335	5235	5235AL	1-1/4	2-3/32	2-1/2	13/16
5336+	5236	5236AL	1-1/2	2-23/32	2-11/16	13/16
5337+	5237	5237AL	2	3-1/4	3-1/16	7/8
5338+	5238	5238AL	2-1/2	3-3/4	4-1/8	1
5339+	5239	5239AL	3	4-1/2	4-1/4	1
5340+	5240	5240AL	4	5-1/2	4-1/2	1-1/8
5385*+	5285*	—	5	8-3/4	7	1-7/8
5386*+	—	—	6	8-3/4	8-1/2	2

** 3/8 in. Conduit Fitting has 1/2 in. hub
UL Listed liquidtight; and CSA Certified watertight
* Not CSA Certified
+ Malleable Iron

Steel, malleable iron, or aluminum tapered hub threads. With safe-edge ground thru 4 in. cone and double bevel sealing ring (through 2 in.)

45° Angle Fittings*

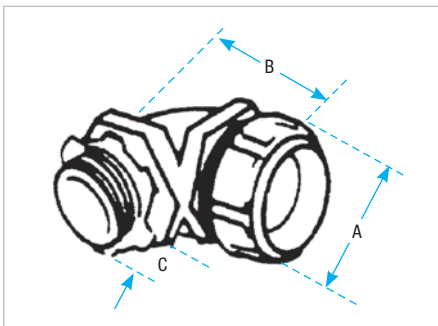


Cat. No.		Size (in.)	Dimensions (in.)		
Insulated	Non-insulated		A	B	C
5341**	5241	3/8	1-5/32	1-9/16	9/16
5342	5242	1/2	1-3/8	1-7/8	9/16
5343	5243	3/4	1-21/32	2-1/8	9/16
5344	5244	1	1-7/8	2-1/4	3/4
5345	5245	1-1/4	29/32	2-3/4	1-3/16
5346	5246	1-1/2	2-23/32	3-3/8	1-3/16
5347	5247	2	3-1/4	3-7/8	7/8
5348	5248	2-1/2	3-3/4	4-1/4	1
5349	5249	3	4-1/2	4-1/4	1
5350	5250	4	5-1/2	4-5/8	1-1/8

** 3/8 in. Conduit Fitting has 1/2 in. hub
UL Listed liquidtight; and CSA Certified watertight
For Wiremesh Grips refer to page B74

Malleable iron, tapered hub threads. With safe-edge ground cone and double bevel sealing ring (through 2 in.)

Liquidtight Flexible Metal Conduit Fittings



90° Angle Fittings



Cat. No.			Hub Size (in.)	Conduit Size (in.)	Dimensions (in.)		
Insulated	NonInsulated	Aluminium			A	B	C
5351	5251	5251AL	3/8	3/8	1-5/32	1-3/8	9/16
5352	5252	5252AL	1/2	1/2	1-3/8	1-9/16	9/16
5353	5253	5253AL	3/4	3/4	1-21/32	1-3/4	9/16
5354	5254	5254AL	1	1	1-7/8	2-3/16	3/4
5355	5255	5255AL	1-1/4	1-1/4	29/32	2-3/4	13/16
5356	5256	5256AL	1-1/2	1-1/2	2-23/32	2-15/16	13/16
5357	5257	5257AL	2	2	3-1/4	3-7/16	7/8
5358	5258	5258AL*	2-1/2	2-1/2	3-3/4	8-7/8	1
5359	5259	—	3	3	4-1/2	10-1/4	1
5360	5260	—	4	4	5-1/2	12-5/8	1-1/8

For Hazardous Location applications, please refer to CEC Section 18.

UL Listed liquidtight; and CSA Certified watertight

* Not CSA Certified



Prevents severe conduit bends and pullout

Wiremesh Grips for Liquidtight Fittings

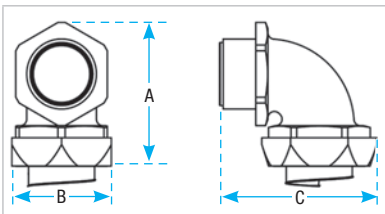
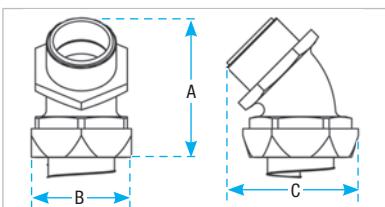
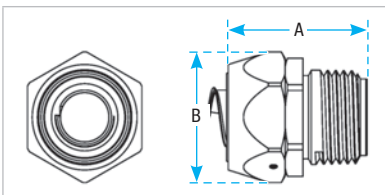


Cat. No.	Conduit Size (in.)	Liquidtight Fittings			Chase	90° Chase	Adapter
		Straight	45°	90°			
WMG-LT1	3/8	5331	5341	5351	5361	5371	5271
WMG-LT2	1/2	5332	5342	5352	5362	5372	5272
WMG-LT3	3/4	5333	5343	5353	5363	5373	5273
WMG-LT4	1	5334-TB	5344	5354	5364	5374	5274
WMG-LT5	1-1/4	5335	5345	5355	5365	—	5275
WMG-LT6	1-1/2	5336	5346	5356	5366	—	5276
WMG-LT7	2	5337	5347	5357	5367	—	5277
WMG-LT8	2-1/2	5338	5348	5358	5368	—	5278
WMG-LT9	3	5339	5349	5359	5369	—	—
WMG-LT10	4	5340	5350	5360	5370	—	—

Order wiremesh grip separately: no need to duplicate inventory

Liquidtight Flexible Metal Conduit Fittings

Stainless Steel



**5262 Series
Sealing Ring Gasket
sold separately**



The strength of steel – with superior corrosion-resistance!

Until now, there's been no ideal conduit fitting solution for use in heavily corrosive environments. Traditional metallic fittings corrode and require frequent replacement. Nonmetallic fittings offer less strength, lower UV-resistance, and don't stand up well in extreme temperatures. T&B Stainless Steel Liquidtight Conduit Connectors are constructed of 304 stainless steel to resist corrosion while offering high strength, high UV-resistance, and high endurance. Choose among a full range of fittings in straight, 45°, and 90° angled configurations for 3/8 in. to 2 in. conduit sizes. Look for the distinctive blue insulator and sealing ring for assurance of T&B quality.

- Ideal for industrial MRO and OEM applications in food and beverage, pharmaceutical, petrochemical, waste water, salt water, and other corrosive environments
- Connects metallic-cored liquidtight conduit to a box or enclosure
- 304 stainless steel body and gland-nut resists corrosion far better than other metallic fittings
- Stronger, more UV-resistant than nonmetallic fittings
- Available in straight, 45°, and 90° angled configurations to fit conduit from 3/8 in. to 2 in.
- UL Listed Ratings: 3, 3R, 4, 4X
- 5262 Sealing Ring Gasket (sold separately) includes a stainless steel retaining ring to prevent elongation of the gasket and is made from Santoprene™ material, ensuring a superior seal



Liquidtight Conduit Fittings

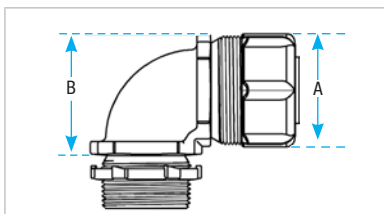
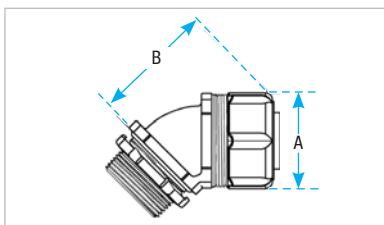
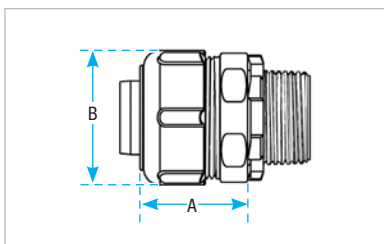
Cat. No	Size (in.)	Dimensions (in.)			Std. Pkg. Qty.
		A	B	C	
Straight					
5331SST *	3/8	1.360	1.02	—	25
5332SST	1/2	1.360	1.18	—	25
5333SST	3/4	1.388	1.37	—	25
5334SST	1	1.562	1.77	—	5
5335SST	1-1/4	1.720	2.12	—	20
5336SST	1-1/2	2.020	2.48	—	5
5337SST	2	2.335	3.04	—	2
45° Angled					
5341SST *	3/8	1.84	1.02	1.43	25
5342SST	1/2	1.62	1.18	2.04	25
5343SST	3/4	2.32	1.37	1.93	10
5344SST	1	2.86	1.77	2.37	5
5345SST	1-1/4	3.33	2.12	2.80	5
5346SST	1-1/2	3.94	2.48	3.39	2
5347SST	2	4.73	3.04	4.23	1

Locknut not included

* 3/8 in. conduit fitting has 3/8 in. hub

Cat. No	Size (in.)	Dimensions (in.)			Std. Pkg. Qty.
		A	B	C	
90° Angled					
5351SST *	3/8	1.95	1.02	1.84	25
5352SST	1/2	2.12	1.18	2.07	25
5353SST	3/4	2.47	1.37	2.44	10
5354SST	1	2.98	1.77	2.90	5
5355SST	1-1/4	3.53	2.12	3.36	5
5356SST	1-1/2	4.16	2.48	3.88	2
5357SST	2	8.60	3.04	4.69	1
Sealing Gasket					
5261	3/8	—	—	—	50
5262	1/2	—	—	—	50
5263	3/4	—	—	—	25
5264	1	—	—	—	25
5265	1-1/4	—	—	—	5
5266	1-1/2	—	—	—	5
5267	2	—	—	—	5

Liquidtight Flexible Metal Conduit Fittings



Quick-Connect™ Liquidtight Fittings Push. Tighten. Done!

The quality of the T&B Liquidtight system in a labour-saving Quick-Connect™ fitting. Innovative push-in technology with a captive sealing ring makes it installation-ready.

Flexible conduit is used in a wide variety of challenging environments. You need fittings to match. That's why Thomas & Betts offers four different liquidtight lines, including our new time-saving, Quick-Connect™ fittings.

- Ideal for any industrial MRO or OEM application where high performance is required
- Often used in food and beverage, wastewater and chemical processing industries
- Each liquidtight fitting is designed to exceed expectations
- Simple installation and worry-free connections

Standard Material/Finish

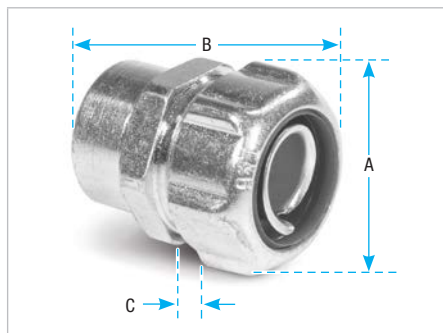
Steel:	Gland nut, ground cone, body, locknut
Finish:	Zinc Plated Coated
Nylon:	Sealing ring, insulator
Temp. rating:	105°C

Quick-Connect™ Liquidtight Fittings



Cat. No. Non-insulated	Cat. No. Insulated	Trade Size (in.)	Material	Dimensions (in.)		Inner Pack	Outer Pack
				A	B		
Straight fittings							
5231-PT	5331-PT	3/8	Zinc Plated Steel	1-5/32	1-5/16	25	100
5232-PT	5332-PT	1/2	Zinc Plated Steel	1-3/8	1	25	100
5233-PT	5333-PT	3/4	Zinc Plated Steel	1-21/32	1-1/16	25	50
5234-PT	5334-PT	1	Zinc Plated Steel	1-7/8	1-5/16	10	50
45° fittings							
5241-PT	5341-PT	3/8	Malleable Iron	1-5/32	1	25	50
5242-PT	5342-PT	1/2	Malleable Iron	1-3/8	1-5/16	25	50
5243-PT	5343-PT	3/4	Malleable Iron	1-21/32	1-9/16	10	50
5244-PT	5344-PT	1	Malleable Iron	1-7/8	1-1/2	5	25
90° fittings							
5251-PT	5351-PT	3/8	Malleable Iron	1-5/32	1-3/16	25	50
5252-PT	5352-PT	1/2	Malleable Iron	1-3/8	1-7/16	25	50
5253-PT	5353-PT	3/4	Malleable Iron	1-21/32	1-3/4	10	50
5254-PT	5354-PT	1	Malleable Iron	1-7/8	1-15/32	5	25

Liquidtight Flexible Metal Conduit Fittings

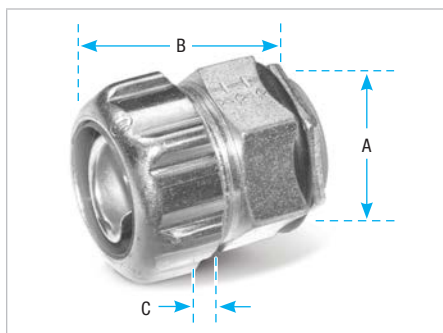


Liquidtight Adapter To Connect Liquidtight to Threaded Rigid Conduit



Cat. No.	Conduit Size (in.)	Dimensions (in.)			Std. Pkg.
		A	B	C	
5271	3/8	1-5/32	1-9/16	1-3/8	50
5272	1/2	1-3/8	1-11/16	1-3/8	50
5273	3/4	1-21/32	1-3/4	1-3/8	50
5274	1	1-7/8	2-1/8	1-3/8	25
5275	1-1/4	2-9/32	2-1/2	1-3/8	25
5276	1-1/2	2-3/4	2-11/16	1-3/8	10
5277	2	3-15/32	3-1/16	1-3/8	5

With SAFE-EDGE™ ground cone and double bevel sealing ring (through 2 in.)
For Hazardous Location applications, please refer to CEC Section 18.

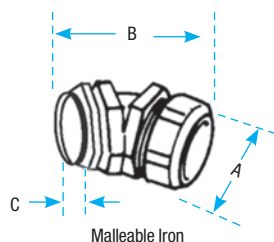


Nylon Insulated CHASE® Fittings Steel or Malleable Iron



Cat. No.	Conduit Size (in.)	Dimensions (in.)			Std. Pkg.
		A	B	C	
5361	3/8	1-3/32	1-3/8	1/8	100
5362	1/2	1-3/8	1-3/8	3/16	100
5363	3/4	1-11/16	1-5/8	1/4	50
5364	1	2-1/32	2-1/16	1/4	25
5365	1-1/4	2-3/8	2-3/8	5/16	25
5366	1-1/2	2-15/16	2-3/4	3/8	10
5367	2	2-9/16	3	3/8	5
5368	2-1/2	4-3/8	3-15/16	7/16	5
5369	3	5-1/8	4-1/8	1/2	5
5370	4	5-1/8	4-3/8	1/2	5

With SAFE-EDGE™ ground cone and double bevel sealing ring (through 2 in.)
Note: UL Listed Liquidtight; and CSA Certified Watertight
For Hazardous Location applications, please refer to CEC Section 18.



Nylon Insulated 90° Angle CHASE® Connectors

Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C
5371 †	3/8	1-1/32	1-1/2	3/16
5372 †	1/2	1-15/64	1-15/32	3/16
5373 †	3/4	1-31/64	1-7/8	9/32
5374 †	1	1-23/32	2-1/4	11/32

With SAFE-EDGE™ ground cone and double bevel sealing ring
Note: UL Listed Liquidtight; & CSA certified watertight. Suitable for hazardous locations use in Class I, Div. 2; Class II, Div. 1 and 2; Class III, Div. 1 and 2, where general purpose equipment is specifically permitted per NEC © Section 500-2(a).
† UL Listed as grounding means under NEC 351-7.

Liquidtight Flexible Metal Conduit Fittings

Specifications — External Bonding

Application

- Used where external bonding jumper is required around liquidtight flexible metal conduit
- To positively bond conduit to box or enclosure
- Used where flexible raceway is installed in outdoor or indoor locations where exposed to continuous or intermittent moisture

Features

- Designed with provision to install bonding jumper in several positions
- Designed to accept mechanical or compression lug
- Ability to install quickly with low torque effort
 - (i) Compresses metallic convolutions; assures ground contact with low impedance and high raceway holding power (A)
 - (ii) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (B)
 - (iii) Rolled over edge protects conductors (C)
- Sealing ring design has following exclusive features:
 - (i) Grips and seals at leading and trailing edge — will not abrade raceway jacket (D)
 - (ii) Provided with grooves on inside diameter for anti-sleeving (E)
 - (iii) Shoulders on both ends for extra sealing (F)
 - (iv) Symmetrical shape assures foolproof assembly
- Can be disconnected and reused
- Watertight/oiltight installation at box or enclosure termination is assured by:
 1. External taper thread hub on 5331GR Series and use of sealing gasket 5262 Series (G)
 2. Taper tapped hole on 5271 Series
- For Hazardous Location applications, please refer to CEC Section 18
- Conforms with JIC requirements

- CEC Rule 12-1306 stipulates “a separate bonding conductor shall be installed in liquidtight flexible conduit in accordance with section 10”
- CEC Rule 10-618 (3) “The armour of flexible metal conduit and liquidtight flexible metal conduit shall not be considered as fulfilling the requirements of a bonding conductor for the purposes of this rule, and a separate bonding conductor shall be run within the conduit”

Standard Material

Lugs: High conductivity copper (for copper conductor only)

Body, Gland, Locknut & Ground

Cones: All steel or malleable iron

Sealing Ring and Insulator:

All thermoplastic

Sealing Gasket: Stainless Steel & Buna N

Strap: Steel

Standard Finish

All Electro Zinc Plated and Chromate Coated except lugs

Lugs: Bright Dipped

Range

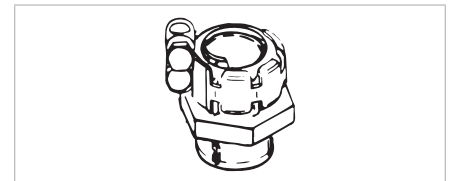
- 5331GR Series (straight fittings with male hub): 3/8 in. thru 6 in. conduit
 - 5341GR Series (45°): 3/8 in. thru 4 in. conduit
 - 5351GR Series (90°): 3/8 in. thru 4 in. conduit
 - 5271GR Series (straight fittings with female hub): 3/8 in. thru 1-1/4 in. conduit
- All hubs provided with taper pipe threads (NPT)

Conformity

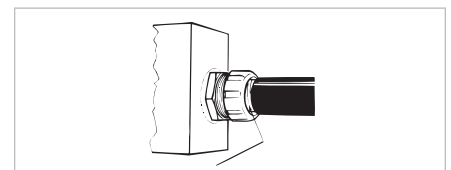
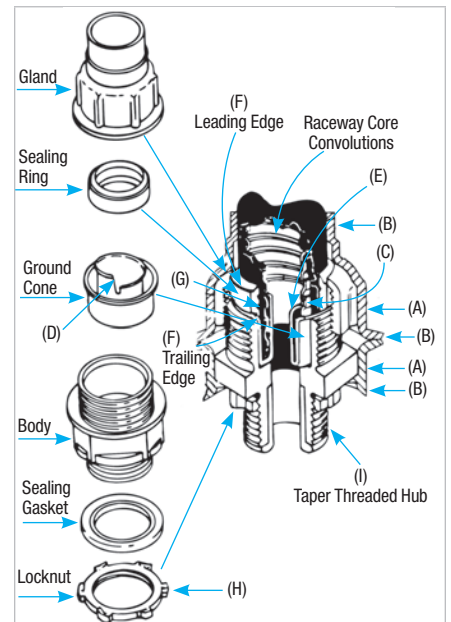
UL 467
 UL 514B
 CSA C22.2 No. 18.3
 CSA C22.2 No. 41
 NEMA FB-1
 NFPA 70-2008 (ANSI)
 JIC EGP1
 JIC EMP1
 Federal Specification W-F-406
 Federal Standard H-28 (threads)



Series 5331GR

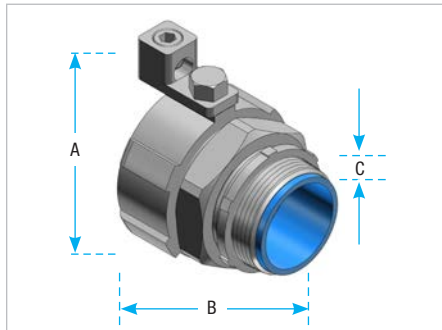


Series 5271GR



Sleeving
 Raceway Jacket pulls off — exposing core and affecting liquidtight termination. Feature (E) on sealing ring helps overcome this problem.

Liquidtight Flexible Metal Conduit Fittings



Malleable iron, tapered hub threads

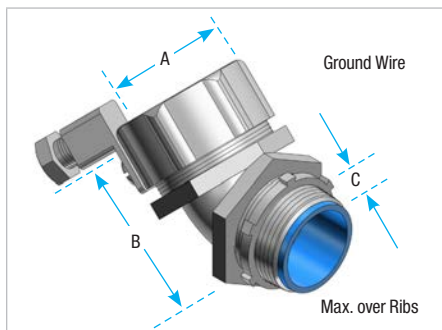
Straight Grounding Fittings



Cat. No.	Steel Insulated	Steel Non-insulated	Aluminum Non-insulated	Conduit Size (in.)	Dimensions (in.)			Ground Wire
					A	B	C	
5331GR**		5231GR	5231ALGR*	3/8	1-5/32	1-1/2	9/16	14-8
5332GR		5232GR	5232ALGR*	1/2	1-3/8	1-9/16	9/16	14-8
5333GR		5233GR	5233ALGR*	3/4	1-21/32	1-5/8	9/16	14-4
5334GR		5234GR	5234ALGR*	1	1-7/8	2-1/16	3/4	14-4
5335GR		5235GR		1-1/4	2-1/4	2-1/2	13/16	8-1/0
5336GR		5236GR		1-1/2	3-1/4	2-11/16	13/16	4-2/0
5337GR		5237GR		2	3-13/16	3-1/16	7/8	4-2/0
5338GR		5238GR		2-1/2	4-7/16	4-1/8	1	2-4/0
5339GR		5239GR		3	5-3/16	4-1/4	1	2-4/0
5340GR		5240GR		4	6-1/8	4-1/2	1-1/8	2-4/0
5385GR		5285GR		5	8-9/16	7	1-7/8	2-4/0
5386GR		—		6	8-17/32	8-1/2	2	2-4/0

* Not CSA Certified

** 3/8 in. conduit fittings have 1/2 in. trade size hub. With safe-edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).



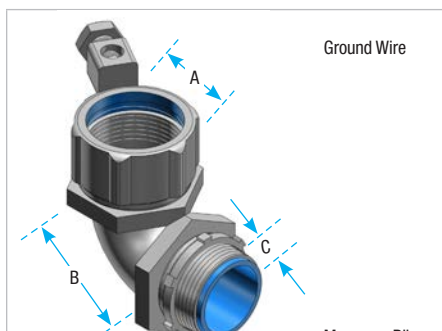
Malleable iron, tapered hub threads

45° Angle Grounding Fittings



Cat. No.	Steel Insulated	Steel Non-insulated	Conduit Size (in.)	Dimensions (in.)			Ground Wire
				A	B	C	
5341GR**		5241GR**	3/8	1-5/32	1-9/16	9/16	14-8
5342GR		5242GR	1/2	1-3/8	1-7/8	9/16	14-8
5343GR		5243GR	3/4	1-21/32	2-1/8	9/16	14-4
5344GR		5244GR	1	1-7/8	2-1/4	3/4	14-4
5345GR		5245GR	1-1/4	2-1/4	2-3/4	13/16	8-1/0
5346GR		5246GR	1-1/2	3-1/4	3-3/8	13/16	4-2/0
5347GR		5247GR	2	3-13/16	3-7/8	7/8	4-2/0
5348GR		5248GR	2-1/2	4-7/16	4-1/4	1	2-4/0
5349GR		5249GR	3	5-3/16	4-1/4	1	2-4/0
5350GR		5250GR	4	6-1/8	4-5/8	1-1/8	2-4/0

** 3/8 in. conduit fittings have 1/2 in. trade size hub. With safe-edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).



Malleable iron, tapered hub threads

90° Angle Grounding Fittings

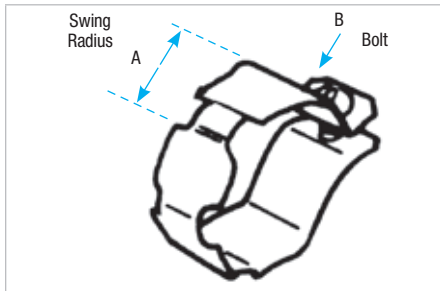


Cat. No.	Steel Insulated	Steel Non-insulated	Aluminum Non-insulated	Conduit Size (in.)	Dimensions (in.)			Ground Wire
					A	B	C	
5351GR**		5251GR**	5251ALGR*	3/8	1-5/32	1-1/4	9/16	14-8
5352GR		5252GR	5252ALGR*	1/2	1-3/8	1-7/16	9/16	14-8
5353GR		5253GR	5253ALGR*	3/4	1-21/32	1-13/16	9/16	14-4
5354GR		5254GR	5254ALGR*	1	1-7/8	2-1/16	3/4	14-4
5355GR		5255GR		1-1/4	2-1/4	2-1/2	13/16	8-1/0
5356GR		5256GR		1-1/2	3-1/4	2-15/16	13/16	4-2/0
5357GR		5257GR		2	3-13/16	3-7/16	7/8	4-2/0
5358GR		5258GR		2-1/2	4-7/16	8-7/8	1	2-4/0
5359GR		5259GR		3	5-3/16	10-1/4	1	2-4/0
5360GR		5260GR		4	6-1/8	12-5/8	1-1/8	2-4/0

* Not CSA Certified

** 3/8 in. conduit fittings have 1/2 in. trade size hub. With safe-edge ground cone (through 4 in.) and double bevel sealing ring (through 2 in.).

Liquidtight Flexible Metal Conduit Fittings

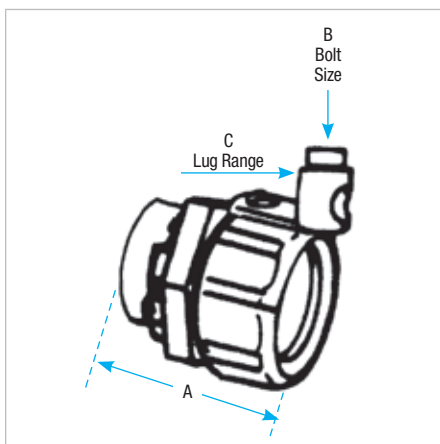


For retrofit applications.
Includes strap, nut and bolt

External Grounding Strap



Cat. No.	Conduit Size (in.)	A Swing Radius (in.)	B Bolt Sizes
GR1W	3/8	1	10-24
GR2W	1/2	1-1/16	10-24
GR3W	3/4	1-3/8	1/4-20
GR4W	1	1-1/2	1/4-20
GR5W	1-1/4	1-7/8	5/16-18



Liquidtight to Rigid External Ground Adaptor



Cat. No.	Conduit Size (in.)	A Overall Length (in.)	B Bolt Sizes	C Lug Range
5271GR*	3/8	1-15/32	10-24	14-8
5272GR	1/2	1-3/8	10-24	14-8
5273GR	3/4	1-21/32	1/4-20	14-4
5274GR	1	1-7/8	1/4-20	14-4
5275GR	1-1/4	2-1/4	5/16-18	8-1/0
5276GR	1-1/4	2-29/32	3/8-16	3/8-16

* 3/8 in. conduit fittings have 1/2 in. trade size hub



Revolver™ Grounding Device



Cat. No.	Conduit Size (in.)
38GR-TB	3/8
12GR-TB	1/2
34GR-TB	3/4
1GR-TB	1

The grounding device is a combination of a set screw and a grounding lug that can be used to retrofit any existing liquidtight fitting to an externally grounded version

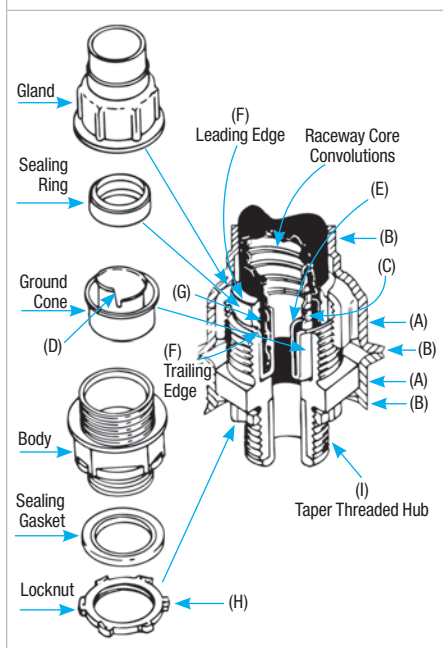
Liquidtight Flexible Metal Conduit Fittings

Specifications — PVC Coated



3321 Series*

*3361 Series...same as 3321, except 90°
3341 Series...same as 3321, except 45°



Application

- Used where liquidtight flexible metal conduit is installed in outdoor or indoor locations where exposed to environmental conditions that are more than normally corrosive to exposed surfaces
- To positively bond conduit to box or enclosure

Features

- PVC coated to protect fitting from extremely corrosive surroundings without affecting integrity of electrical grounding path (A)
- Provided with overlapping sleeve for additional seal (B)
- Ability to install quickly with low torque effort
- Ground cone design offers following advantages:
 - (i) Compresses metallic convolutions; provides high quality ground contact with low impedance and high raceway holding power (C)
 - (ii) Single helical thread on ground cone is easy to install without cross threading; accepts variations in raceway diameters and convolution pitch (D)
 - (iii) Rolled over edge protects conductors (E)
- Sealing ring design has following exclusive features:
 - (1) Grips and seals at leading and trailing edge—will not abrade raceway jacket (F)
 - (2) Provided with grooves on inside diameter for anti-sleeving (G)
 - (3) Shoulders on both ends for extra sealing
 - (4) Symmetrical shape assures foolproof assembly
- Hardened steel or malleable iron locknut (H)
- Can be disconnected and reused
- Watertight/oiltight installation at box or enclosure termination is provided by external taper thread hub and sealing gasket (I)
- Conforms with JIC requirements

Standard Material

Body, Gland, Locknut and Ground Cones:

All steel or malleable iron

Sealing Ring and Insulator:

All thermoplastic

Sealing Gasket, Retainer: Stainless Steel

Resilient Seal: Buna N

Coating: PVC

Standard Finish

Outside of body and gland:

PVC Coated 0.040 min. Thickness

Inside of body and gland:

Electro Zinc Plated and Chromate Coated

Locknut, Sealing Gasket, and Retainer:

Electro Zinc Plated and Chromate Coated

Range

- 3321, 3361 and 3341 Series
3/8 in. thru 4 in. conduit

All hubs provided with taper pipe threads (NPT).

Conformity

UL 514B

CSA C22.2 No. 18.3

NEMA FB-1

NFPA 70-2008 (ANSI)

JIC EGP1

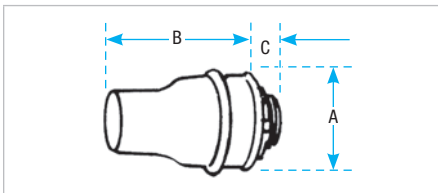
JIC EMP1

Federal Specification W-F-406

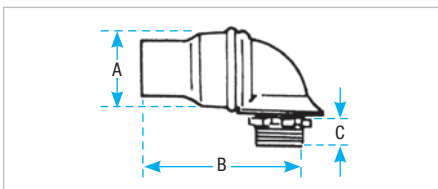
Federal Standard H-28 (THREADS)

Liquidtight Flexible Metal Conduit Fittings

Corrosion Resistant PVC Jacketed Liquidtight Fittings



Straight PVC Coated
Nylon Insulated
Steel or Malleable Iron
NPT hub threads



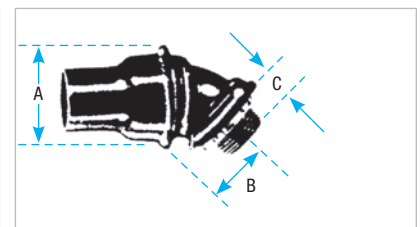
90° PVC Coated
Nylon Insulated
NPT hub threads

Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C
Straight PVC Coated				
3321	3/8	1-15/32	2-5/16	9/16
3322	1/2	1-5/8	2-1/2	9/16
3323	3/4	1-15/16	2-25/32	9/16
3324	1	2-1/4	3-15/32	3/4
3325	1-1/4	2-11/16	4-1/4	13/16
3326	1-1/2	3-1/8	4-11/16	13/16
3327	2	3-5/8	5-5/16	7/8
3328-TB	2-1/2	4-3/8	6-3/8	1
3329	3	5-3/16	6-1/2	1
3331	4	6-7/16	6-3/4	1-1/8
90° PVC Coated				
3361	3/8	1-15/32	2-3/16	9/16
3362	1/2	1-5/8	2-1/2	9/16
3363	3/4	1-15/16	2-29/32	9/16
3364	1	2-1/4	3-19/32	3/4
3365	1-1/4	2-11/16	4-1/2	13/16
3366	1-1/2	3-1/8	4-15/16	13/16
3367	2	3-5/8	5-11/16	7/8
3368	2-1/2	4-3/8	11-1/8	1
3369	3	5-3/16	12-1/2	1
3371	4	6-7/16	14-7/8	1-1/8
45° PVC Coated				
3341	3/8	1-15/32	1-1/8	9/16
3342	1/2	1-5/8	1-1/4	9/16
3343	3/4	1-15/16	1-7/16	9/16
3344-TB	1	2-1/4	1-13/16	3/4
3345	1-1/4	2-11/16	2-1/16	13/16
3346	1-1/2	3-1/8	2-11/16	13/16
3347	2	3-5/8	3-3/16	7/8
3348-TB	2-1/2	4-3/8	3-13/16	1
3349	3	5-3/16	4-9/16	1
3352	4	6-7/16	5-3/4	1-1/8

Complies with JIC standards and Federal Specs W-F-406B, W-F-408B

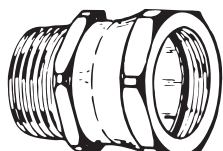


45° PVC Coated Nylon Insulated NPT hub threads

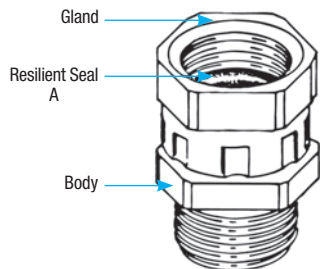
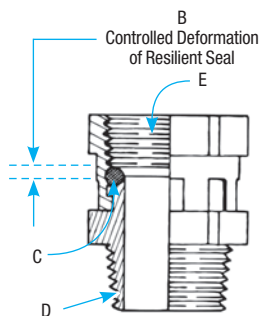


Liquidtight Flexible Metal Conduit Fittings

Specifications — Liquidtight Union for Threaded Hub



41 Series



Application

- To couple threaded end of a fitting or a pipe to a tapped opening in a box or enclosure where rotation of fitting or pipe is limited or restricted

Features

- Provides high quality bond between fitting or pipe to the union
- Provided with resilient seal (A)
- Resilient seal subjected to controlled deformation; positive seal and reusability are assured (B)
- Unique design centralizes throat openings of threaded hub and union (C)
- Permits orientation of fitting in any predetermined direction for a safe, functional and neat assembly
- Provided with taper-threaded hub for liquidtight assembly (D)
- Straight pipe threads on gland accept a straight-or taper-threaded hub on fitting or pipe to be coupled (E)
- Suitable for hazardous location use per CEC Rule J18-106 Class I, Div. 1; CEC Rule 18-202 Class II, Div. 1; CEC Rule 18-252 Class II, Div. 2; CEC Rule 18-302 Class III, Div. 1; CEC Rule 18-352 Class III, Div. 2;

Standard Material/Finish

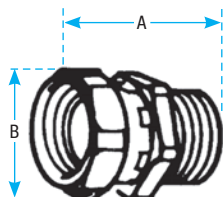
- Gland** Steel/Electro Zinc Chromate Coated
- Body** Steel/Electro Zinc Chromate Coated
- 'O' Ring** Buna N/As Molded

Range

- Hub (External Thread) 1/2 in. and 3/4 in. NPT
- Gland (Internal Threads) 1/2 in. and 3/4 in. NPS

Conformity

- UL 514B
CSA C22.2 No. 18.3
NEMA FB-1
ANSI C80.4
NFPA 70-2008 (ANSI)
Federal Specification W-F-408
Federal Specification W-F-406
Federal Standard H-28 (Threads)



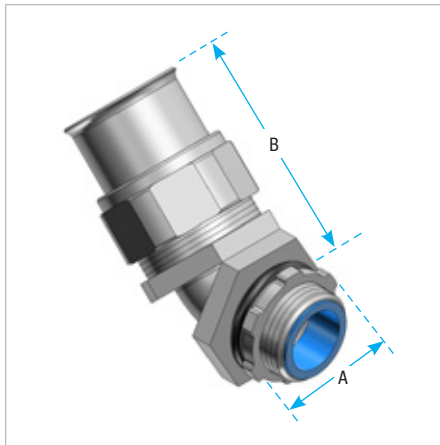
Steel, zinc plated and chromated. Ideal for angle fittings where swing clearance is not available

Liquidtight Union for Threaded Hub



Cat. No.	Conduit Size (in.)	Dimensions (in.)	
		A	B
41TB	1/2	1-29/64	1
42TB	3/4	1-15/16	1-1/4

Liquidtight Flexible Metal Conduit Fittings

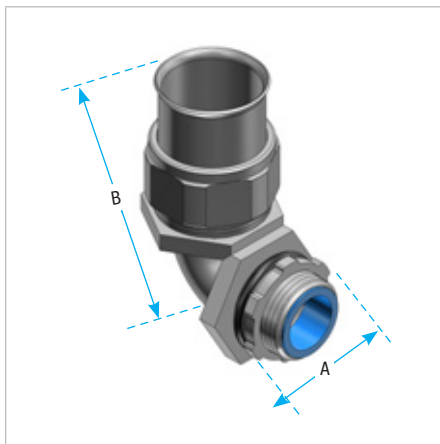


45° Metallic Fittings



Cat. No.	Conduit Size (in.)	Hub Thread	Dimensions (in.)	
			A	B
3730-TB*	3/8	1/2 — 14 NPT	1-5/32	2-13/32
3731-TB	1/2	1/2 — 14 NPT	1-3/8	2-9/16
3732	3/4	3/4 — 14 NPT	1-5/8	3
3733-TB	1	1 — 1 1/2 NPT	1-7/8	3-1/2
3734-TB	1-1/4	1-1/4 — 11-1/2 NPT	2-3/8	4-1/8
3735-TB	1-1/2	1-1/2 — 11-1/2 NPT	2-3/4	4-7/8
3736	2	2 — 11-1/2 NPT	3-17/32	5-1/2

* Not UL Listed
CSA not applicable

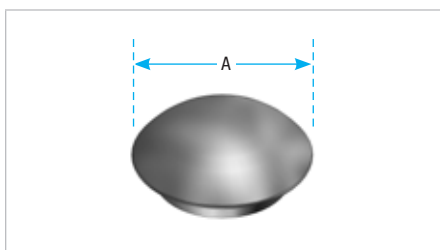


90° Metallic Fittings



Cat. No.	Conduit Size (in.)	Hub Thread	Dimensions (in.)	
			A	B
3740*	3/8	1/2 — 14 NPT	1-5/32	1-5/8
3741	1/2	1/2 — 14 NPT	1-3/8	1-3/4
3742	3/4	3/4 — 14 NPT	1-5/8	2-1/4
3743-TB	1	1 — 11-1/2 NPT	1-7/8	2-9/16
3744-TB	1-1/4	1-1/4 — 11-1/2 NPT	2-3/8	3-1/4
3745	1-1/2	1-1/2 — 11-1/2 NPT	2-3/4	3-1/2
3746-TB	2	2 — 11-1/2 NPT	2-17/32	4-1/8

* Not UL Listed
CSA not applicable



NEMA 3R, 4, 6 & 13
Temperature range — -30°C to 105°C.

Liquidtight K.O. Plugs



Cat. No.	Size (in.)	Dimensions (in.)
		A
5710	1/2	1-9/32
5711	3/4	1-1/2
5712	1	1-27/32
5713	1-1/4	27/32
5714	1-1/2	2-1/2
5715	2	3-3/32
5716	2-1/2	3-21/32
5717	3	4-19/64
5718	4	5-19/64

UL Listed liquidtight
CSA not applicable
Meets Coast Guard Regulation CG293

Liquidtight Flexible Metal Conduit Fittings

Specifications — Liquidtight Sealing Gaskets



5262 Series

Application

- When used with an externally threaded fitting provides a tight seal against oil, fumes or moisture at the knockout opening

Features

- Locks resilient sealing material in steel.
- Steel retainer protects seal from extruding out under torque and limits compression to an optimum predetermined value; provides high quality seal
- Resilient material flows and seals rough surfaces

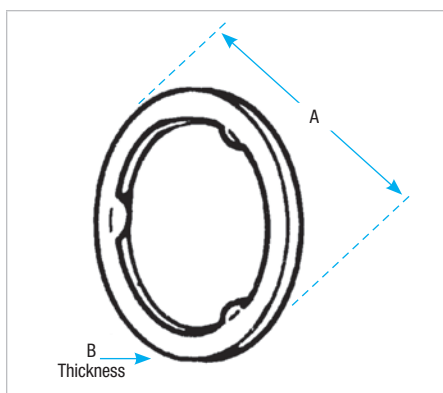
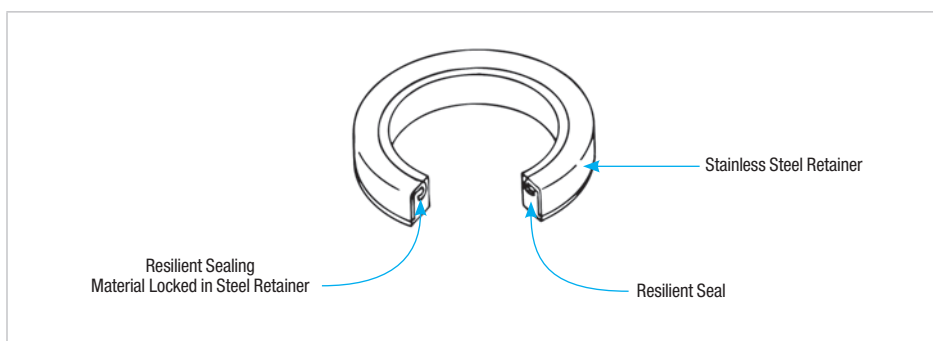
Standard Material

Retainer Stainless Steel

Sealing Material Buna N

Range

- 1/2 in. thru 4 in. Hub Size



NEMA 3R, 4, 6 & 13

For use with T&B® Fittings. Sealing material resists oil, coolants, and hydraulic fluids as well as water

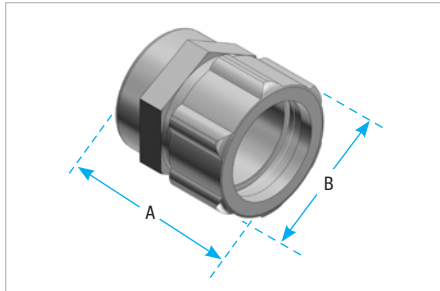
Sealing Ring with Stainless Steel Retainer



Cat. No.	Conduit Size (in.)	Dimensions (in.)	
		A	B
5299**	1/4	0.80	0.11
5261**	3/8	0.95	0.11
5262	1/2	1.16	0.18
5263	3/4	1.49	0.19
5264	1	1.75	0.19
5265	1-1/4	2.15	0.22
5266	1-1/2	2.42	0.23
5267	2	2.92	0.23
5268	2-1/2	3.44	0.23
5269	3	4.08	0.23
5270	4	5.29	0.31

** UL not applicable

Liquidtight Flexible Metal Conduit Fittings



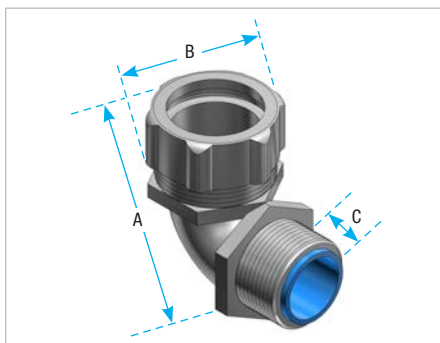
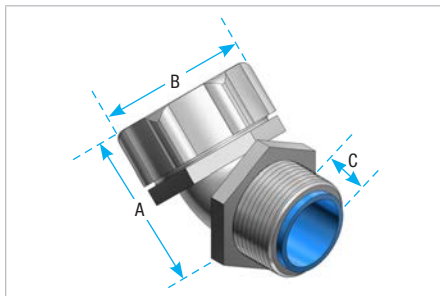
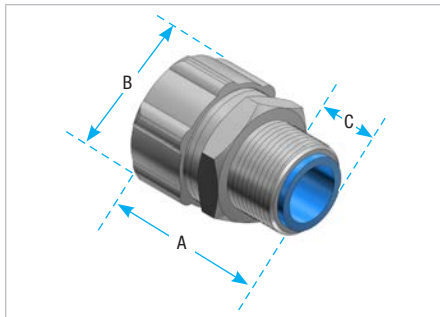
T&B Liquidtight flexible metal and Liquidtight flexible nonmetallic fittings with internal threads to accept AN-MS fitting shells

Material: Steel

Liquidtight Flexible Metal/MS Fittings



Cat. No.	Trade Size (in.)	AN-MS conn. Shell Size	Internal Thread		
			Thread Size	Dimensions (in.)	
				A	B
LTA03810	3/8	10SL, 12, 12S	5/8 — 24 UNEF-2B	1-5/32	1
LTA03814	3/8	14, 14S	3/4 — 20 UNEF-2B	1-5/32	1
LTA05014	1/2	14, 14S	3/4 — 20 UNEF-2B	1-5/16	1-1/4
LTA05016	1/2	16, 16S	7/8 — 20 UNEF-2B	1-5/16	1-1/4
LTA05018	1/2	18	1 — 20 UNEF-2B	1-5/16	1-1/4
LTA07516	3/4	16, 16S	7/8 — 20 UNEF-2B	1-7/16	1-1/2
LTA07518	3/4	18	1 — 20 UNEF-2B	1-7/16	1-1/2
LTA07520	3/4	20, 22	1-3/16 — 18 UNEF-2B	1-7/16	1-1/2
LTA10020	1	20, 22	1-3/16 — 18 UNEF-2B	1-3/4	1-23/32
LTA10024	1	25, 28	1-7/16 — 18 UNEF-2B	1-3/4	1-23/32



Fittings for Liquidtight flexible metal conduit with metric threads of PG Form (DIN 40430)

PG Metric Thread Liquidtight Fittings



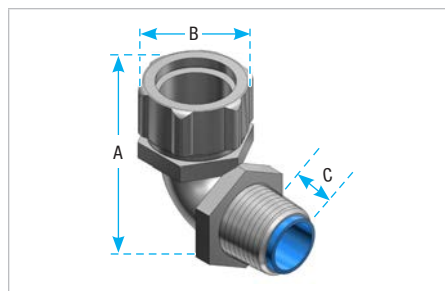
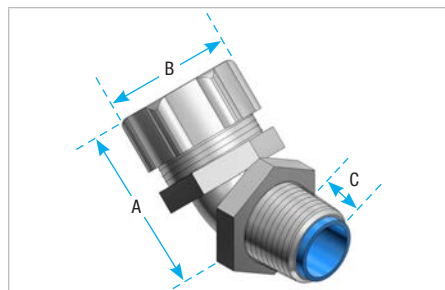
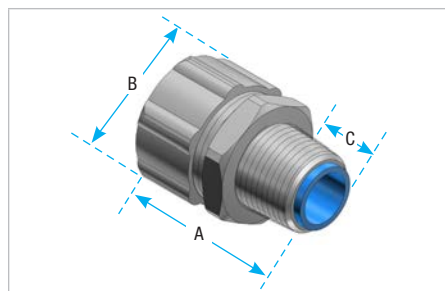
Cat. No.	Flexible Conduit Size (in.)	Metric PG Thread	Dimensions (mm)		
			A	B	C
Nylon insulated straight fittings					
7330**	1/4	9	36	21	12
7360**	5/16	9	36	26	12
7361*	3/8	11	40	29	14
7362*	3/8	13.5	40	29	14
7363*	1/2	16	41	35	14
7364*	3/4	21	43	42	14
7365	1	29	56	47	19
7366	1-1/4	36	67	58	21
7367	1-1/2	42	72	69	21
7368	2	48	81	83	21
Nylon insulated 45° angle fittings					
7341	3/8	11	27	29	14
7342	3/8	13.5	27	29	14
7343	1/2	16	30	35	14
7344-TB	3/4	21	34	42	14
7345	1	29	44	47	19
7346	1-1/4	36	51	58	19
7347	1-1/2	42	60	69	21
7348-TB	2	48	73	76	24
Nylon insulated 90° angle fittings					
7351	3/8	11	37	29	14
7352	3/8	13.5	37	29	14
7353	1/2	16	40	35	14
7354	3/4	21	44	42	14
7355	1	29	56	47	21
7356	1-1/4	36	70	58	21
7357	1-1/2	42	75	69	21
7358	2	48	87	83	24

UL Listed liquidtight

*CSA Certified dusttight and watertight

**UL not applicable and not CSA Certified

Liquidtight Flexible Metal Conduit Fittings



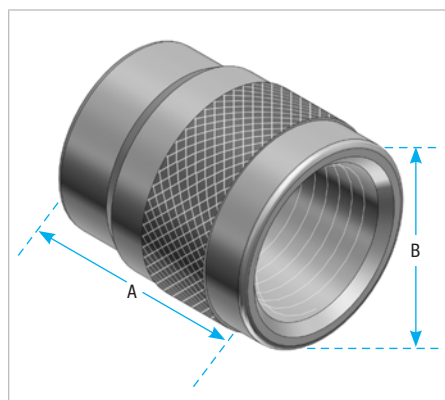
Fittings for Liquidtight flexible metal conduit with metric threads of ISO Form (BS-4568-SA BS 162)

ISO Metric Thread Liquidtight Fittings



Cat. No.	Flexible Conduit Size (in.)	Metric ISO Thread	Dimensions (mm)		
			A	B	C
Nylon insulated straight fittings					
9330	1/4	16	36	21	12
9331	1/4	20	36	21	12
9306	5/16	16	36	26	12
9360	3/8	16	40	29	16
9361	3/8	20	40	29	16
9362	1/2	20	42	35	16
9363	3/4	25	45	42	16
9364	1	32	54	47	23
Nylon insulated 45° angle fittings					
9340	3/8	16	27	29	16
9341	3/8	20	27	29	16
9342	1/2	20	27	35	16
9343TB	3/4	25	31	42	16
9344	1	32	34	47	23
Nylon insulated 90° angle fittings					
9350	3/8	16	35	29	16
9351	3/8	20	35	29	16
9352TB	1/2	20	39	35	16
9353TB	3/4	25	43	42	16
9354TB	1	32	48	47	23

UL Listed Liquidtight



Mechanical adapter with internal threads to mate with NPT threaded fittings and MS type fittings

Material: aluminum

NPT/MS Fitting Adaptors



Cat. No.	N.P.T. Thread (in.)	AN-MS Fitting Shell Size	Thread Size	Dimensions (in.)		Fig.
				A	B	
MSA05014	1/2	14, 14S	3/4 — 20 UNEF-2B	1.000	1.175	1
MSA05016		16, 16S	7/8 — 20 UNEF-2B	1.000	1.175	2
MSA05018		18	1 — 20 UNEF-2B	1.125	1.175	3
MSA07516	3/4	16, 16S	7/8 — 20 UNEF-2B	1.250	1.356	1
MSA07518		18	1 — 20 UNEF-2B	1.250	1.300	1
MSA07520		20, 22	1-3/16 — 18 UNEF-2B	1.375	1.300	3
MSA10020	1	20, 22	1-3/16 — 18 UNEF-2B	1.500	1.431	1
MSA10024		24, 28	1-7/16 — 18 UNEF-2B	1.625	1.313	3
MSA10032		32	1-3/4 — 18 UNS-2B	2.000	1.576	3
MSA10036		36	2 — 18 UNS-2B	2.250	1.738	3

Not CSA Certified

Liquidtight Flexible Nonmetallic Conduit Fittings

Specifications — Type A Conduit Fittings



Series 6302
Liquidtight Flexible Nonmetallic
Conduit Fittings



Series 6322
Liquidtight Flexible Nonmetallic
Conduit Fittings

Application

- To provide a liquidtight, dusttight connection between flexible, nonmetallic conduit and a box or an enclosure

Features

- Serrated design provides high mechanical pullout strength (A)
- Unique component parts (body/gland) design insures positive seal between conduit and fitting (B)
- Tapered thread hub and sealing 'O' ring provide a liquidtight/dust tight seal to a box or an enclosure (C)
- High strength, chemical resistant, non-burning, non-dripping thermoplastic construction
- Smooth insulated body throughout for maximum dielectric strength
- Captive 'O' ring and reduced number of parts save installation time (D)

Standard Material

Body Thermoplastic

Gland Thermoplastic

'O' Ring Neoprene

Locknut Steel (Case Hardened)

Standard Finish

Body, Gland & 'O' Ring As Molded

Locknut Electro Zinc

Range

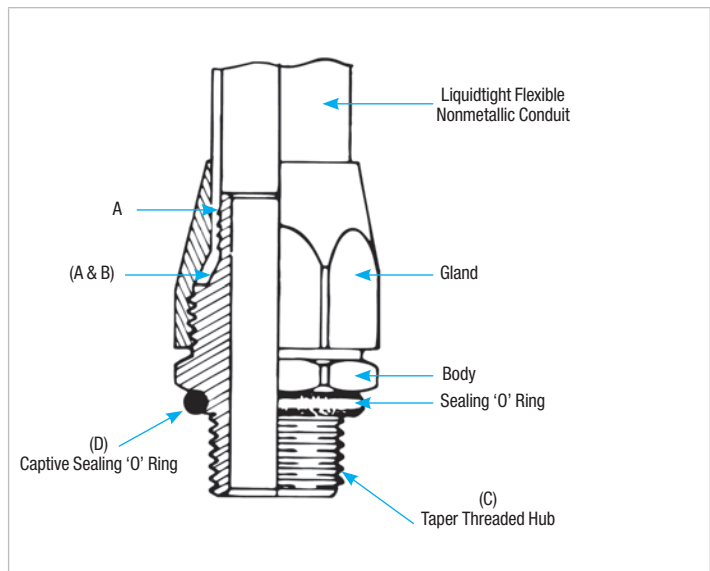
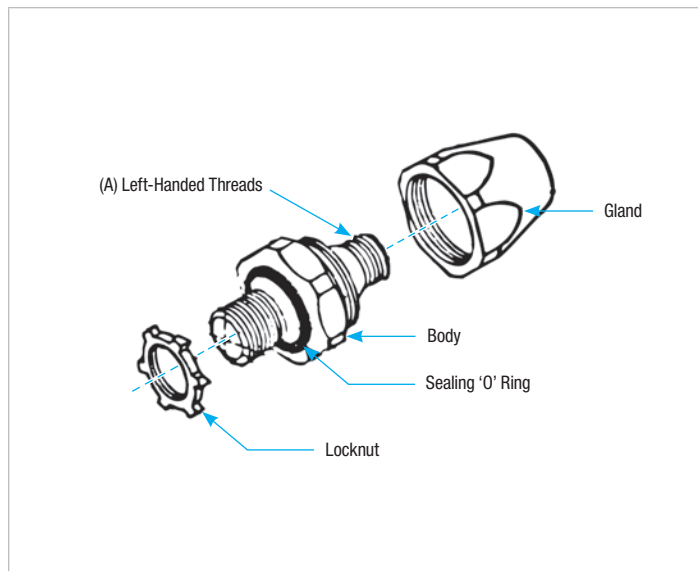
- Conduit Size 1/2 in. thru 1-1/4 in.
- Hub Size 1/2 in. thru 1-1/4 in. NPT

Liquidtight Flexible Nonmetallic Conduit Fittings

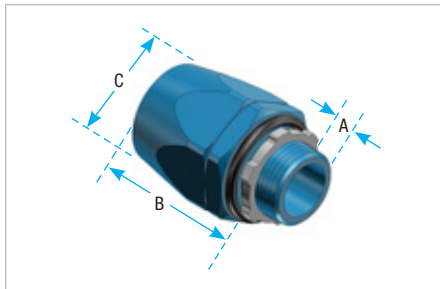
Suggested Specifications for Type A Conduit and Fittings

- Type A Liquidtight Flexible Nonmetallic Conduit shall be seamless type adequately reinforced with one or more layers of flexible braided reinforcing cords. Conduit jacket shall be of non-kinking oil resistant/ water resistant flame retardant material suitable for ambient environmental conditions.
- Where Type A Flexible Nonmetallic Conduit terminates into a threaded or threadless opening, the conduit shall be cut square, deburred, installed with sufficient slack to reduce effects of vibration and assembled with approved fittings such as Series 6302 or 3720 manufactured by Thomas & Betts. Fittings shall be of malleable iron/ steel/ thermoplastic construction with taper-threaded hub and:

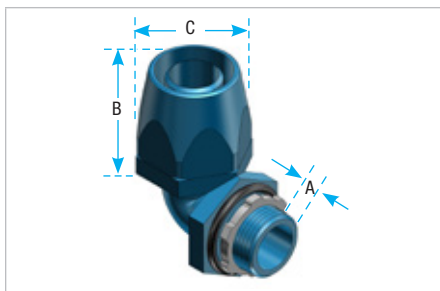
- (1) Ferrous metallic fittings shall be electro-zinc plated inside outside and equipped with a nylon insulated throat
- (2) Thermoplastic fittings shall be of high impact chemical resistant, non-burning, non-dripping thermoplastic
- (3) Fittings shall be provided with a captive, moisture resistant/ oil resistant synthetic rubber gasket



Liquidtight Flexible Nonmetallic Conduit Fittings



Straight Fitting



90° Angle Fitting

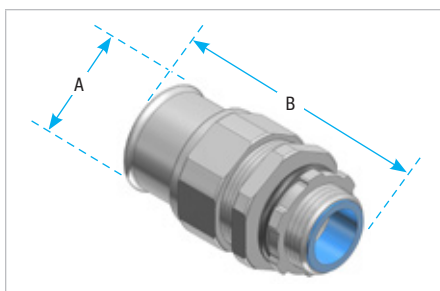
Designed especially for the Type A, all-plastic raceways now in use for dynamic machine tool applications
Fittings are constructed of a high-strength, chemically resistant thermoplastic tougher than the raceway itself
Neoprene sealing ring is furnished with fitting providing a liquidtight seal for knockout applications

Thermoplastic Fittings for Liquidtight Flexible Nonmetallic Conduit Type A



Cat. No.	Conduit Size (in.)	Dimensions (in.)		
		A	B	C Cross Corners
Straight Fitting				
6302	1/2	0.60	1.68	1.48
6303	3/4	0.61	1.85	1.76
6304	1	0.77	1.89	2.10
6305	1-1/4	0.79	2.30	2.67
90° Angle Fitting				
6322	1/2	0.60	1.56	1.48
6323	3/4	0.61	1.74	1.76
6324	1	0.77	1.78	2.10
6325	1-1/4	0.79	2.13	2.67

Corrosion Resistant Applications
Meets Coast Guard CG293
Use with our LNM-P Conduit on p. G23



- Nylon insulated throat
- T&B Sealing Ring to seal knockouts
- Steel or malleable iron
- UL Listed
- NPT hub threads to seal in female threads
- High mechanical pull-out strength
- Provides positive seal against water, oil and dust

Liquidtight Flexible Nonmetallic Conduit Type A



Cat. No.	Conduit Size (in.)	Hub Thread	Dimensions (in.)	
			A	B
3720-TB*	3/8	1/2 — 14 NPT	1-5/32	2
3721-TB	1/2	1/2 — 14 NPT	1-3/8	2-1/8
3722-TB	3/4	3/4 — 14 NPT	1-5/8	2-1/4
3723	1	1 — 11-1/2 NPT	1-7/8	2-1/2
3724-TB	1-1/4	1-1/4 — 11-1/2 NPT	2-3/8	2
3725	1-1/2	1-1/2 — 11-1/2 NPT	2-3/4	3-3/8
3726	2	2 — 11-1/2 NPT	3-17/32	3-5/8

* Not UL Listed

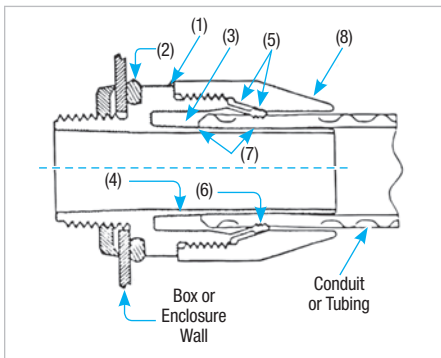
Liquidtight Flexible Nonmetallic Conduit Fittings

Specifications — Bullet® Liquidtight Fittings for Liquidtight Flexible Nonmetallic Conduit and Tubing



Application:

A Series of nonmetallic fittings designed to provide a liquidtight seal when terminating liquidtight nonmetallic conduit (UL Type B) or liquidtight nonmetallic tubing to a box or enclosure with knockout opening or a threaded hub.



Plastic Bullet® Liquidtight Fittings Feature:

- Fitting assembles to conduit without disassembly and is designed to be installed with positive installation criteria (gland bottoms on body shoulder)
- Rugged low profile nonmetallic body and gland construction (1); the fitting is equipped with a steel locknut to firmly secure fitting to box or an enclosure and a sealing "O" ring
- Captive sealing "O" ring (2) with predetermined compression for a reliable seal at enclosure
- Fitting ferrule designed to accept variations in conduit inside diameter and is tolerant of field conduit cuts (3)
- Ferrule profile designed to reduce friction between conduit I.D. and ferrule (4) allowing conduit to seat properly for an effective seal
- Outer surface of clamping fingers provided with friction reducing ridges (5) for ease of installation; the inner surface is designed with conduit biting teeth to enhance clamping and sealing action (6)
- Performance of fittings tested to simulate adverse installation conditions
- Provides a double sealing action (7)
- Elongated gland nut profile (8) designed to provide additional strain relief for 90° pull and an easy hand grip
- Performance of fitting unaffected by exposure to detergents, cleaners, and sanitizers commonly encountered in food processing plants and typical industrial environment; also unaffected by cutting fluids, wiring pulling compounds and Marine environment
- Meets industry standards for cold impact and simulated hammer blow

Standard Material/Finish:

- **Body Gland** — weather stabilized thermoplastic (black)
- **"O" Ring** — nitrile (blue)
- **Locknut** — Steel/electro-zinc plated
- **Material temperature rating** — thermoplastic -40°C to 105°C
- **Material Flammability Rating:** UL94-V2

Conformity

- CSA C22.2 #227.2 & CSA C22.2 #227.3
- UL514B
- Watertight requirements of NEMA Type 4 and Type 4X
- Federal Standard H-28 (NPT threads)
- There is no CEC Rule to use Nonmetallic liquidtight conduit and fittings in Class I, Zone 2 or Class I, Division 2; Rule 18-202 (4) (b) Class II, Division 1; Rule 18-252 (4) Class II, Division 2; Rule 18-302 (4) Class III, Division 1

Liquidtight Flexible Nonmetallic Conduit Fittings

Plastic Bullet® Liquidtight Fittings for T&B NMC Nonmetallic Liquidtight Conduit Type B and T&B NMT Flexible Tubing



Cat. No.	Fig.	Trade Size (in.)	A±0.015 (0.040) in. (mm)	*B± 0.035 (0.90)		C±0.015 (0.40) Across Corner in. (mm)	Min. Throat Dia. D in. (mm)	E Thread NPT	F* (in.) (mm) Approx.
				(in.)	(mm)				
LT38P	1	3/8	0.570 (14.48)	1.595	(40.51)	1.354 (34.39)	0.417 (10.59)	1/2-14	—
LT438P	2			2.012	(51.10)				1.534 (38.95)
LT938P	3			1.380	(35.05)				1.880 (47.75)
LT50P	1	1/2	0.570 (14.48)	1.636	(41.55)	1.448 (36.78)	0.550 (13.97)	1/2-14	—
LT450P	2			2.092	(53.14)				1.590 (40.39)
LT950P	3			1.489	(37.82)				1.986 (50.44)
LT75P	1	3/4	0.582 (14.78)	1.757	(44.63)	1.740 (44.20)	0.740 (18.80)	3/4-14	—
LT475P	2			2.452	(62.28)				1.821 (46.25)
LT975P	3			1.790	(45.47)				2.212 (56.00)
LT100P	1	1	0.726 (18.44)	1.923	(48.84)	2.068 (52.53)	0.940 (23.88)	1-11-1/2	—
LT4100P	2			2.684	(68.17)				2.034 (51.66)
LT9100P	3			2.104	(53.44)				2.508 (63.70)
LT125P	1	1-1/4	0.750 (19.05)	2.164	(54.97)	2.494 (63.35)	1.257 (31.93)	1-1/4-11-1/2	—
LT4125P	2			3.264	(82.91)				2.385 (60.58)
LT9125P	3			2.564	(65.13)				2.856 (72.54)
LT150P	1	1-1/2	0.767 (19.48)	3.353	(85.77)	2.784 (70.71)	1.453 (36.91)	1-1/2-11-1/2	—
LT4150P	2			3.605	(91.57)				2.604 (66.14)
LT9150P	3			2.854	(72.49)				3.144 (79.86)
LT200P	1	2	0.794 (20.17)	2.605	(66.17)	3.362 (85.39)	1.883 (47.83)	2-8	—
LT4200P	2			4.210	(106.93)				3.050 (77.47)
LT9200P	3			3.432	(87.17)				3.675 (93.34)

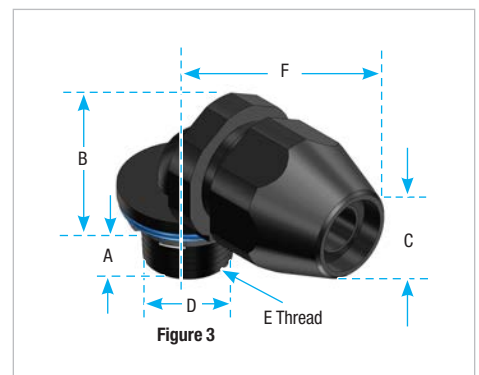
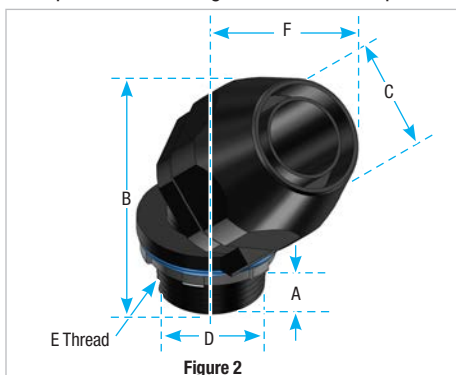
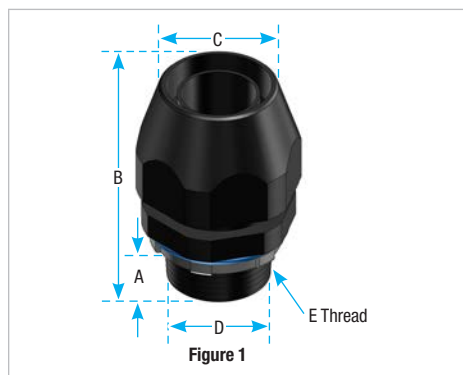
* After Assembly

Suggested Specification:

Where liquidtight flexible nonmetallic conduit (UL and CSA Type B) or liquidtight flexible nonmetallic tubing is terminated to a box or enclosure, the nonmetallic fittings used shall be able to be installed without disassembly and provide a positive installation criteria. In the installed condition, the

fitting must provide a seal meeting watertight requirements of NEMA Type 4 and Type 4X. The performance of fittings shall be unaffected by exposure to detergents, sanitizers, cutting fluids, wire pulling compounds and oil-based industrial paints. The fitting must also be capable of

withstanding marine environment and cold impact simulating a hammer blow. Installed fittings shall be of the elongated gland type as manufactured by Thomas & Betts LT38P Series.



Liquidtight Flexible Nonmetallic Conduit Fittings

Metallic Bullet® Liquidtight Fittings for T&B NMC Nonmetallic Liquidtight Conduit Type B and T&B NMT Flexible Tubing



Cat. No.	Fig.	Trade Size (in.)	A±0.030 (0.80) in. (mm)	B±0.060* (1.50)		C±0.045 (1.15)		D in. (mm)	Thread NPT
				in.	(mm)	in.	(mm)		
LT38M	1	3/8	1.156 (29.4)	1.500	(38.1)	0.562	(14.3)	—	1/2-14
LT438M	2			1.962	(49.8)	0.562	(14.3)	—	
LT938M	3			1.312	(33.3)	0.625	(15.9)	1.375 (34.9)	
LT50M	1	1/2	1.375 (34.9)	1.562	(39.7)	0.562	(14.3)	—	1/2-14
LT450M	2			1.875	(47.6)	0.562	(14.3)	—	
LT950M	3			1.437	(36.5)	0.625	(15.9)	1.562 (39.7)	
LT75M	1	3/4	1.656 (42.1)	1.625	(41.2)	0.625	(15.9)	—	3/4-14
LT475M	2			2.125	(54.0)	0.562	(14.3)	—	
LT975M	3			1.750	(44.4)	0.625	(15.9)	1.750 (44.4)	
LT100M	1	1	1.875 (47.6)	2.062	(52.4)	0.750	(19.0)	—	1-11-1/2
LT4100M	2			2.250	(57.1)	0.812	(20.6)	—	
LT9100M	3			1.937	(49.2)	0.812	(20.6)	2.187 (55.5)	
LT125M	1	1-1/4	2.375 (60.3)	2.500	(63.5)	0.812	(20.6)	—	1-1/4-11-1/2
LT4125M	2			2.750	(69.8)	0.812	(20.6)	—	
LT9125M	3			2.500	(63.5)	0.812	(20.6)	2.750 (69.8)	
LT150M	1	1-1/2	2.750 (69.8)	2.687	(68.2)	0.812	(20.6)	—	1-1/2-11-1/2
LT4150M	2			2.750	(69.8)	0.812	(20.6)	—	
LT9150M	3			2.812	(71.4)	0.812	(20.6)	2.937 (74.6)	
LT200M	1	2	3.468 (88.1)	3.062	(77.8)	0.812	(20.6)	—	2-11-1/2
LT4200M	2			3.875	(98.4)	0.875	(22.2)	—	
LT9200M	3			3.500	(88.9)	0.875	(22.2)	3.437 (87.3)	

Suggested Specification:

Where liquidtight flexible nonmetallic conduit (UL and CSA Type B) or liquidtight flexible nonmetallic tubing is terminated to a box or enclosure, the metallic fittings used shall be able to be installed without disassembly and provide positive installation criteria. In the installed condition, the

fitting must provide a seal, meeting watertight requirements of NEMA Type 4 and Type 4X with conduit and NEMA Type 4 enclosures with tubing. Installed fittings shall be as manufactured by Thomas & Betts LT38M Series.

Material: Body/Gland — Steel/MI
Insert — Nylon

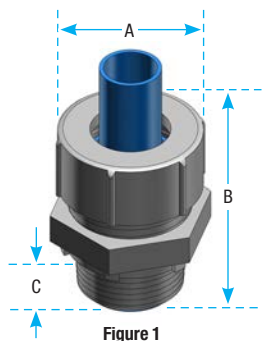


Figure 1

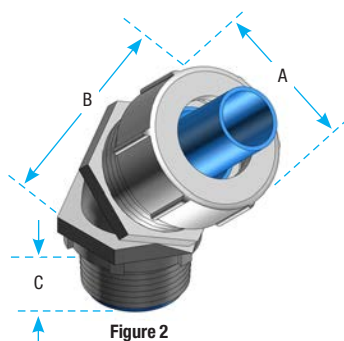


Figure 2

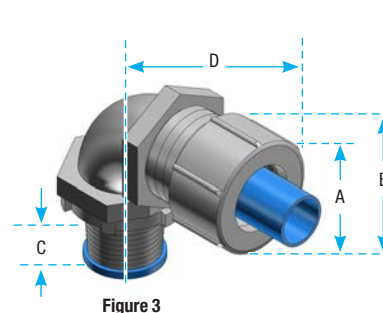


Figure 3

Liquidtight Flexible Nonmetallic Conduit Fittings

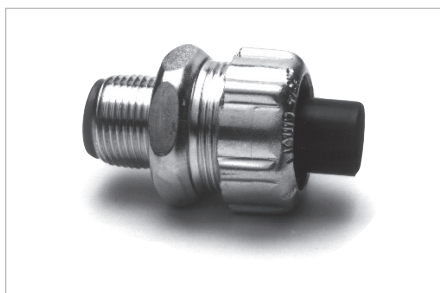


When you have a conduit application in a liquidtight environment, it's time to load up the T&B Bullet®. Thomas & Betts introduces the ISO Metric Bullet® liquidtight fittings for use with the 3/8 in., 1/2 in., and 3/4 in. NMT and NMC nonmetallic liquidtight conduit Series.

The T&B Bullet® liquidtight fitting and NMT nonmetallic conduit are suited for OEM applications as in the machine tool industry where environments include continuous motion, vibration, and exposure to moisture, oil, dirt and dust.

The T&B Bullet® liquidtight fitting and NMT nonmetallic conduit are also suitable for construction applications where ISO metric threading and liquidtight systems are installed.

The Xtra flex® system offers a lightweight, liquidtight flexible conduit solution for industrial applications. The Xtra flex® system allows fast, easy installation and high performance in demanding industrial applications.



ISO Metric Bullet® Liquidtight Fitting



Cat. No.	Angle of Fitting	Conduit Size (in.)	Knockout Size (in.)	Unit Package	Standard Package
LT38M-ISO20	Straight	3/8	1/2	25	100
LT50M-ISO20	Straight	1/2	1/2	25	100
LT75M-ISO25	Straight	3/4	3/4	25	50
LT438M-ISO20	45°	3/8	1/2	25	50
LT450M-ISO20	45°	1/2	1/2	25	50
LT475M-ISO25	45°	3/4	3/4	10	50
LT938M-ISO20	90°	3/8	1/2	25	50
LT950M-ISO20	90°	1/2	1/2	25	50
LT975M-ISO25	90°	3/4	3/4	10	50



ISO Metric Bullet® Liquidtight Fitting Nonmetallic

Cat. No.	Angle of Fitting	Conduit Size (in.)	Knockout Size (in.)	Unit Package	Standard Package
LT38P-ISO20	Straight	3/8	1/2	25	100
LT50P-ISO20	Straight	1/2	1/2	25	100
LT75P-ISO25	Straight	3/4	3/4	25	50
LT938P-ISO20	90°	3/8	1/2	25	50
LT950P-ISO20	90°	1/2	1/2	25	50
LT975P-ISO25	90°	3/4	3/4	10	50

Armoured Cable and Flexible Metal Conduit Fittings

Specifications

Armoured Cable (Type AC90) Ref. CEC Rule 12-600

The Canadian Electric Code 2012 Part I defines type AC armoured cable as, "A fabricated assembly of insulated conductors in a flexible metallic enclosure."

All armoured cables may employ copper or aluminum or copperclad aluminum conductors with the following sizes and are rated for 600 volts or less:

No. 14 AWG to No. 1 AWG Copper

No. 12 AWG to No. 1 AWG Aluminum or Copperclad Aluminum

Armoured cable can be used for both exposed or concealed locations.

Armoured cable is not permitted in locations where it will be subjected to physical damage or corrosive fumes. Armoured cable cannot be used for direct burial in earth.

Codes require that cable shall be supported with straps or staples without damaging conductors. Certain precautions are prescribed in code where cable is installed through joist rafters or similar wood members.

According to CEC Rule 12-610

- (1) Where conductors issue from armour, they shall be protected from abrasion by bushings of insulating material or equivalent devices.
- (2) Where conductors are No. 8 AWG or larger, copper or aluminum, such protection shall consist of:
 - (a) Insulated type bushings, unless the equipment is equipped with a hub having a smoothly rounded throat; or
 - (b) Insulating material fastened securely in place which will separate the conductors from armoured cable fittings and afford adequate resistance to mechanical injury.
- (3) Where armoured cable is fastened to equipment, the conductor or clamp shall be of such design as to leave the insulating bushing or its equivalent visible for inspection.
- (4) Where conductors connected to open wiring issue from the ends of armouring, they shall be protected with boxes or with fittings having a separately bushed hole for each conductor.

Please refer to the following for further details and complete information:

1. UL 4, ANSI C33.9...Safety Standards for Armoured Cable
2. UL 514 A and 514B Safety Standards for Outlet Boxes and Fittings
3. W-F-406...Federal Specification: Fittings for Cable, Power, Electrical and Conduit, Metal, Flexible
4. NEMA FB-1...Standards Publication: Fittings, Cast Metal Boxes and Conduit Bodies for Conduit, Electrical Metallic Tubing and Cable
5. CEC Section 12-600...Wiring Methods (Armoured Cable)
6. CSA C22.2 No. 51...Safety Standards for Armoured Cables
7. CSA C22.2 No. 18.1 and 18.3...Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, is not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Armoured Cable and Flexible Metal Conduit Fittings

Specifications (cont'd)

Flexible Metal Conduit Ref. CEC Rule 12-1000

Flexible metal conduit can be used for exposed or concealed work in dry locations. It can be used for wet locations provided conductors within are lead covered or other approved type.

Flexible metal conduit cannot be used underground or embedded in poured concrete or aggregate. With rubber covered conductors the conduit cannot be exposed to oil, gasoline or other materials having a deteriorating effect on rubber.

With minor exceptions use of flexible metal conduit is not permitted in hoists, in storage battery rooms and in any hazardous locations. Use of flexible metal conduit is restricted to systems under 600 volts.

Flexible metal conduit longer than six feet is permitted to be used as a grounding means provided the conduit and the fitting are approved for the purpose. To date there is no flexible metal conduit approved for the purpose by the Underwriters Laboratories or CSA.

In Class II Zone 2 and Division 2 hazardous areas, **the conduit itself cannot be used as the grounding means.** Class I Zone 2, flexible

connections at motor terminals and similar places, ref.: CEC Rule 18-152 (6) and Bonding CEC Rule 18-074 (1)(a). Class I Division 2, flexible connections at motor terminals and similar places, ref: CEC Rule J18-152 (3) and Bonding CEC Rule J18-072 (1) (a). Flexible metal conduit is available with steel or aluminum armour in trade size 5/16 in. to 4 in. With few exceptions where 5/16 and 3/8 trade sizes are used, Code prohibits use of conduit less than 1/2 in. trade size. Bends in concealed work are restricted to four 90° bends (CEC Rule 12-940). No angle fittings are permitted in concealed raceway installations.

Please refer to the following for further details and complete information:

1. UL 1, ANSI C33.92 Safety Standards for Flexible Metal Conduit
2. UL 514 Safety Standards for Outlet Boxes and Fittings
3. W-F-406 Federal Specification: Fittings for Cable, Power, Electrical and Conduit, Metal Flexible
4. WW-C-566 Federal Specification: Conduit, Metal, Flexible

5. NEMA FB1 Standards Publication: Fittings and Supports for Conduit and Cable Assemblies
6. CEC 12-1000 . . Wiring Method (Rigid & Flexible Conduit)
7. CSA C22.2 No. 56 Safety Standards for Flexible Metallic Conduit and Liquid-Tight Flexible Metal Conduit
8. CSA C22.2 No. 18 Safety Standards for Outlet Boxes, Conduit Boxes and Fittings
9. CEC Rule 12-1000 Rule 18-152 (6) and Bonding Rule 18-074 (1)(a) Class I, Zone 2 Flexible connections at motor terminals and similar places. Rule J18-152 (6) and Bonding Rule J18-072 (1)(a) Class I, Division 2 Flexible connections at motor terminals and similar places. Rule 12-940 Not more than the equivalent of four 90° bends

Suggested Specifications

- Armoured cable and flexible metal conduit shall conform to provisions of following applicable standards: Armoured Cable . . UL 4/ANSI C33.9/CSA C22.2 No. 51 Flexible Metal Conduit . . UL 1/ANSI C33.92/WW-C-566/CSA C22.2 No.56
- Type of cable used and conductors within flexible metal conduit shall be suitable for conditions of use and location
- Where armoured cable or flexible metal conduit terminates into a threadless or threaded opening it shall be assembled with approved fittings; fittings shall be of malleable iron/steel construction, electro-zinc plated inside outside, equipped with nylon insulated throat and shall be of angled saddle type as manufactured by Thomas & Betts, Series 3110. Direct bearing screw type fittings shall not be used.
- Suitable bushing as manufactured by Thomas & Betts, Series 422 or 390, shall be provided between the conductors and armour
- Where approved armoured cable or flexible metal conduit is used as an equipment grounding conductor terminating fitting used shall be of the grounding type as manufactured by Thomas & Betts, Series 3110



Series 3110

Armoured Cable Fitting
& Flexible Metal Conduit



Series 422

Insuliner Sleeve



Series 390

Anti Short Bushing

Armoured Cable and Flexible Metal Conduit Fittings

Specifications



3110 Series

Application

- To connect and effectively bond armoured cable or flexible metal conduit to a box or an enclosure

Features

- Provided with a saddle designed to:
 - (1) Firmly secure conduit in place without damaging cable armour (Mechanical holding power of angled wedge assembly increases with increased strain.)
 - (2) Provide high quality bond between conduit or cable and are unaffected by vibrations
 - (3) Centralize conduit or cable with respect to throat opening for conductors
- Insulated throat protects conductors during and after installation, reduces wire pull effort and prevents thread damage in handling
- Locknuts designed to provide effective bond between fitting and box or enclosure, will not vibrate loose
- Designed with fewer screws — reduces installation time and cost

- Rugged all steel or malleable iron construction.
- CEC Rule 18-152 (6) and Bonding Rule 18-074 (1)(a) Class I, Zone 2 Flexible connections at motor terminals and similar places
- CEC Rule J18-152 (6) and Bonding Rule J18-072 (1)(a) Class I, Division 2 Flexible connections at motor terminals and similar places

Standard Material/Finish

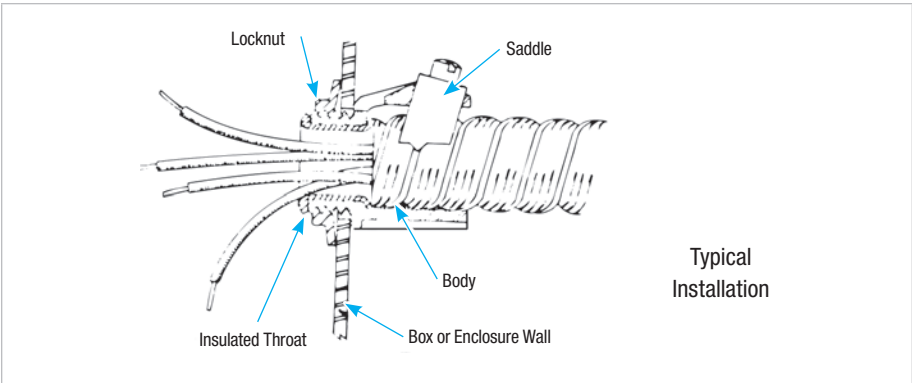
- Body:** Steel or malleable iron/ Electro Zinc Plated and Chromate Coated
- Saddle:** Steel/Electro Zinc Plated and Chromate Coated
- Screws:** Steel/Electro Zinc Plated and Chromate Coated
- Insulator:** Thermoplastic/ As Molded

Conformity

- UL 514B
CSA C22.2 No. 18.3
NEMA FB-1

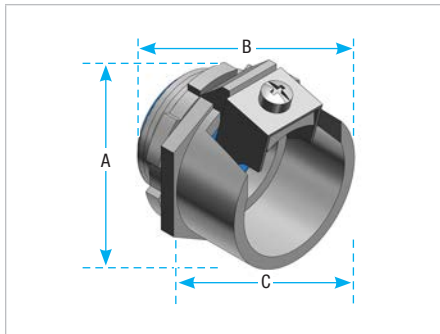
Series	Hub Size (in.)	Conduit Size (in.)	Cable Opening (in.)
3110 Series Straight Fittings	1/2 thru 5 NPS	3/8 thru 5	0.437 to 5.500
3130 Series 90° Fittings	1/2 thru 4 NPS	3/8 thru 4	0.437 to 4.560

(All hubs provided with straight pipe threads NPS)



Typical Installation

Armoured Cable and Flexible Metal Conduit Fittings



Steel or malleable iron

The tough lining of insulation and the Tite-Bite® principles make these fittings a "must" when conductors are subject to conditions of vibration or strain

Tite-Bite® Fittings — Nylon Insulated



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3110-C*	0.656	0.437	3/8	1/2	1-7/16	1-5/16	7/16
3112	0.937	0.750	1/2	1/2	1-25/32	1-3/4	1-9/32
3115*	1.125	0.906	3/4	3/4	2	1-3/4	1-9/32
3117*	1.468	1.250	1	1	2-3/8	1-3/4	1-7/32
3118†	1.750	1.562	1-1/4	1-1/4	2-3/4	2	1-11/32
3119†	2.031	1.812	1-1/2	1-1/2	3-1/8	2-5/8	1-7/8
3120†	2.500	2.312	2	2	3-3/4	2-3/4	1-15/16
3121†	3.062	2.812	2-1/2	2-1/2	4-3/8	3-1/4	2-3/8
3122†	3.562	3.312	3	3	5	3-1/4	2-3/8
3123‡	4.060	3.620	3-1/2	3-1/2	5-1/4	3-11/16	2-15/32
3124**†	4.560	4.120	4	4	5-3/4	3-25/32	2-1/2
3125**	5.500	4.600	5	5	6-7/8	4-27/32	3

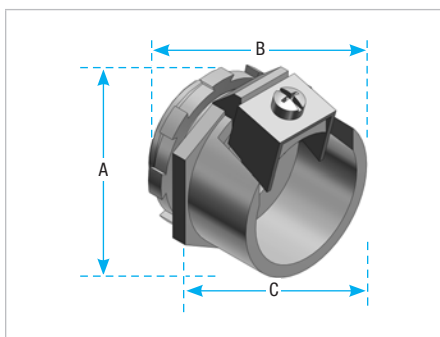
Material: Steel thru 3/4 in. trade size

* UL Listed for armoured cable only

† UL Listed for flexible metal conduit only

‡ CSA not applicable

** Not UL Listed or CSA Certified



Steel or malleable iron

Easy to install with double grip saddle. These fittings are completely salvageable. The 3/8 in. and 1/2 in. sizes are made of formed steel which produce a uniform high quality and a smooth throat that protects conductor insulation. 3/4 in. and larger size are malleable iron

Tite-Bite® Fittings



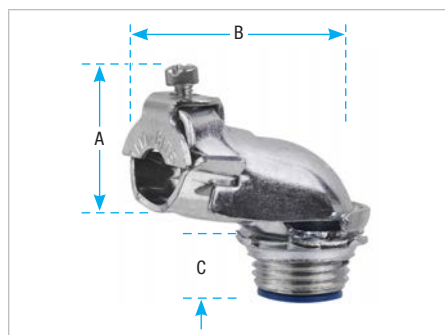
Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
300-TBC*	0.656	0.437	3/8	1/2	7/16	1-5/16	7/16
302-C	0.937	0.750	1/2	1/2	1-7/64	1-11/16	3/4
304	1.093	0.906	3/4	3/4	1-7/32	1-11/16	29/32
306	1.468	1.250	1	1	1-1/8	1-3/4	1-1/4
308†	1.750	1.562	1-1/4	1-1/4	1-1/4	2-1/32	1-9/16
310†	2.031	1.812	1-1/2	1-1/2	1-3/4	2-9/16	1-13/16
312†	2.500	2.312	2	2	1-13/16	2-13/16	2-5/16
314†	3.062	2.812	2-1/2	2-1/2	2-1/4	3-1/8	2-13/16
316†	3.562	3.312	3	3	2-1/4	3-3/16	3-5/16

Material: Steel thru 3/4 in. trade size

* UL Listed for armoured cable only

† UL Listed for flexible metal conduit only

Armoured Cable and Flexible Metal Conduit Fittings



Steel or malleable iron.

Available with or without insulated throat, this Tite-Bite® fitting line is by far the easiest and best to install when making sharp bends at the enclosure or equipment. It has all of the advantages of the straight fitting with only one screw to tighten, except in the larger sizes where there are two. A peep hole on top provides for easy inspection of the ABC bushing. Narrow design makes it easy to install fittings in adjacent knockouts.

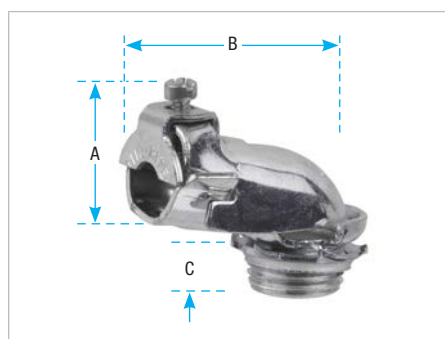
Tite-Bite® Fittings — 90° Angle Nylon Insulated



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3130-C	0.563	0.437	3/8	1/2	1-11/32	1-19/32	5/32
3132	0.937	0.750	1/2	1/2	1-7/8	2-5/16	1-5/32
3135	1.093	0.906	3/4	3/4	2	2-1/8	1-5/32
3137	1.468	1.250	1	1	2-21/32	2-1/8	1/2
3138†	1.750	1.562	1-1/4	1-1/4	3-1/8	2-7/8	3/4
3139†	2.031	1.812	1-1/2	1-1/2	4-3/8	4	1-3/16
3140†	2.500	2.312	2	2	5-9/16	4-7/8	1
3141†	3.062	2.812	2-1/2	2-1/2	5-25/32	6	21
3142†	3.562	3.312	3	3	6	7	1
3143‡	4.060	3.620	3-1/2	3-1/2	6	6-7/8	1-1/16
3144-TB‡	4.560	4.120	4	4	6-29/32	7-1/4	1-1/8

† UL Listed for flexible metal conduit only

‡ Not UL Listed or CSA Certified



The angle clip gives secure mechanical grip that tightens under tension or vibration. Throat is long enough to install in cast housing knockouts. The 3/8 in. and 1/2 in. sizes are of steel construction. The 3/4 in. and larger sizes are malleable iron.

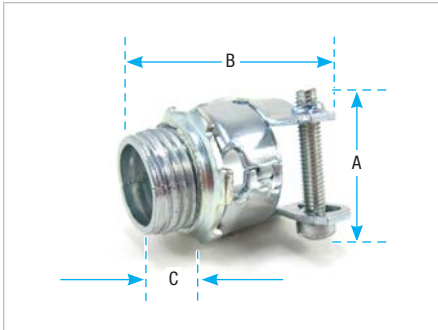
Tite-Bite® Fittings — 90° Angle



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
321-C	0.656	0.437	3/8	1/2	1-11/32	1-1/2	3/8
323	0.937	0.750	1/2	1/2	1-7/8	2-3/8	1-7/32
325	1.093	0.906	3/4	3/4	2-1/8	2-1/8	3/4
326-TB	1.468	1.250	1	1	2-21/32	2-1/8	1
327-TB†	1.750	1.562	1-1/4	1-1/4	3-1/8	3-5/8	—
328†	2.031	1.812	1-1/2	1-1/2	4-1/8	4-1/8	—
329†	2.500	2.312	2	2	4-3/8	4-31/32	—
330-TB†	3.062	2.812	2-1/2	2-1/2	6-1/2	6	—
331†	3.562	3.312	3	3	5-25/32	7	—

† UL Listed for flexible metal conduit only

Armoured Cable and Flexible Metal Conduit Fittings



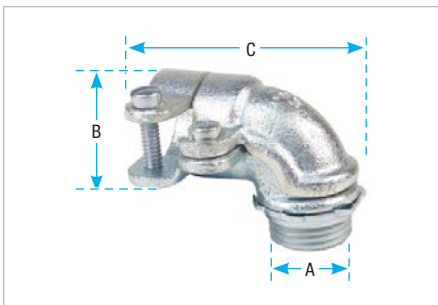
T&B squeeze fittings will fit every size of armoured cable, leaded cable and flexible conduit. Malleable iron or steel construction. Part No. 253-TB is steel.

Squeeze Fittings



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
252	0.531	0.437	5/16	3/8	13/16	25/32	11/32
253-TB†	0.585	0.455	3/8	1/2	31/32	1-13/64	5/8
254-C†	0.938	0.812	1/2	1/2	1-7/32	1-3/8	13/32
255	1.094	0.938	3/4	3/4	1-1/4	1-17/32	7/16
256	1.375	1.250	1	1	1-19/32	1-5/8	1/2
257	1.656	1.500	1-1/4	1-1/4	1-7/8	1-23/32	17/32
258	1.875	1.688	1-1/2	1-1/2	2-1/4	1-7/16	9/16
259	2.500	2.313	2	2	2-31/32	2-5/8	11/16
249	3.062	2.812	2-1/2	2-1/2	3-5/16	2-11/16	3/4
277	3.563	3.312	3	3	3-13/16	2-7/8	3/4

† UL Listed for armoured cable only. Fitting material steel



3/8 in. and 1/2 in. sizes made in steel. Cap lifts off by simply loosening screws part way. Only two screws to tighten. 3/4 in. size and larger made of malleable iron.

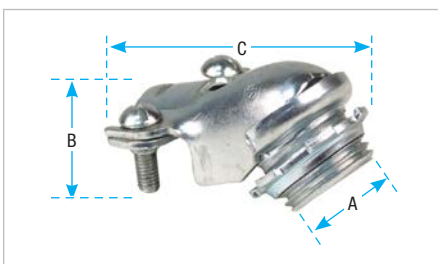
Squeeze Fittings — 90° Angle



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
266-C	0.656	0.406	3/8	1/2	1-1/2	1-13/32	1-7/16
272†	0.812	0.688	3/8	1/2	1-9/16	1-7/8	1-9/16
268-C	0.937	0.813	1/2	1/2	1-11/16	1-13/16	1-7/8
279	1.000	0.875	3/4	3/4	1-13/16	2-1/16	1-13/16
270	1.125	1.000	3/4	3/4	1-7/8	1-3/4	1-13/16
273-TB	1.406	1.187	1	1	2-3/8	2-7/32	2-7/16
274†	1.656	1.375	1-1/4	1-1/4	3	2-9/16	2-7/8
275†	1.875	1.625	1-1/2	1-1/2	3-7/32	3-1/16	4-1/8
276†	2.500	2.125	2	2	4-5/8	3-5/8	4-7/8

† UL Listed for armoured cable only

‡ UL Listed for flexible metal conduit only



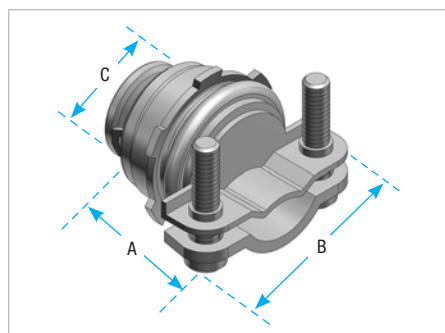
3/8 in. and 1/2 in. sizes made in steel. Cap lifts off by simply loosening screws part way

Squeeze Fittings — 45° Angle



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
265	0.656	0.406	3/8	1/2	1-7/16	1-5/32	1-1/8
267	0.937	0.813	1/2	1/2	1-3/16	1/2	1-1/4
269	1.125	1.000	3/4	3/4	1-7/8	17/32	1-9/16

Armoured Cable and Flexible Metal Conduit Fittings



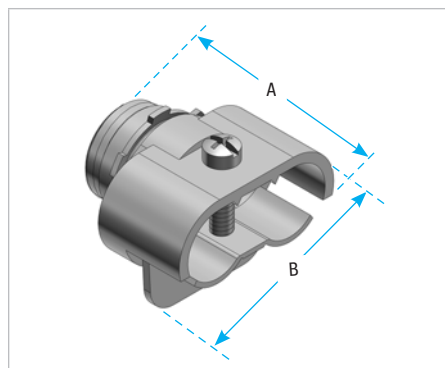
Formed steel body with carefully round bushing. The armour gripping saddle stays open by itself when cable is being inserted.

Two-Screw Fittings



Cat. No.	Cable Opening (in.)		Trade Size (in.)	K.O. Size (in.)	Dimensions (in.)		
	max.	min.			A	B	C
3301-C*	0.656	0.250	3/8	1/2	5/8	1-5/16	1-3/16
3312-C	0.937	0.500	1/2	1/2	5/8	1-5/16	1-3/16

* UL Listed for armoured cable only.



Malleable iron.

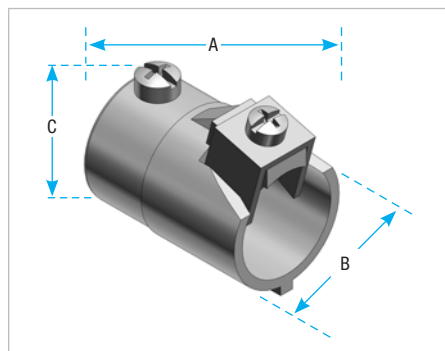
For nonmetallic and armoured cable.

Duplex Clamp Fitting



Cat. No.	K.O. Size (in.)	Dimensions (in.)	
		A	B
291-C	1/2	1-13/32	1-11/16

UL Listed as grounding means under NEC 350-5.



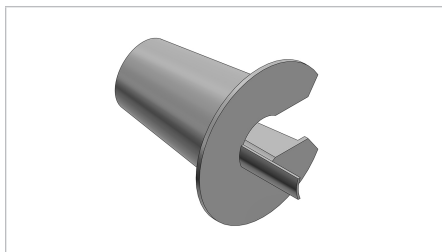
Tite-Bite® fitting design holds flexible metal cable firmly in place with a single screw rather than two screws.

Adaptor — EMT to Flex



Cat. No.	K.O. Size (in.)	Dimensions (in.)		
		A	B	C
503-TB	1/2 - 1/2	1-21/32	1-3/16	1-7/8
504	3/4 - 3/4	1-25/32	1-7/16	2-1/8
505-TB	1 - 1	2-1/32	2-1/16	2-5/8

Armoured Cable and Flexible Metal Conduit Fittings

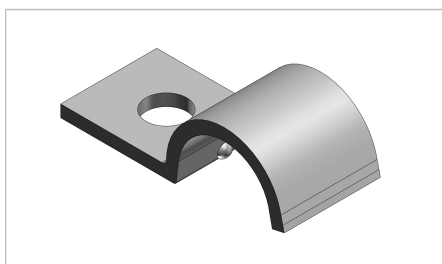


Anti-short bushings are made of smooth plastic, and designed to protect conductor insulation from rough edges of armoured cable and flexible metal conduit

Anti-Short Bushing

Cat. No.	Size
390	14-2, 14-3, 12-2
391	14-4, 12-3, 6-1, and 4-1
392	12-4, 10-2, 10-3 and 2-1
393	10-4, 8-2, 8-3, and 1-1
394	8-4, 6-2, 6-3, 4-2, 4-3, and 6-4

Colourized
Temperature Rating: 240°F
UL not applicable



Strap



Cat. No.	Bolt Hole Dia. (in.)	Size (in.)
65C	0.265	3/8 Flex

Nonmetallic Sheathed Cable Fittings

Specifications — Nonmetallic (NM) Sheathed Cable

Ref. CEC Rule 12-500

Canadian Electrical Code 2012 Part I, defines Nonmetallic Sheathed Cable as, "A factory assembly of two or more insulated conductors having an outer sheath of moisture resistant, flame retardant, nonmetallic material."

Nonmetallic sheathed cable is constructed of insulated conductors (14 to 2 AWG copper), and an outer nonmetallic sheath classified as Types NMD90, NMW and NMWU.

Nonmetallic sheathed cable is provided with bare bonding conductor. Nonmetallic sheathed cable is rated for 90°C service with voltage limitation of 300 volts.

Type NMW and NMWU have a flame retardant, moisture resistant sheath.

Type NMD90, NMW and NMWU applications are described in Table 19 of CEC 2012 Part I.

Nonmetallic sheathed cable is permitted by code to be used exposed or concealed in one, two or multifamily dwellings or other structures not exceeding three floors. Use of Type NMD90 cable is restricted to dry locations.

Nonmetallic sheathed cables are not permitted to be used as a service conductor. Nonmetallic sheathed cables are also prohibited in hazardous locations.

NM cables need to be secured in place by suitable means so as not to injure the cable. Adequate protection for cable is also required when run is exposed, through joists or rafters, through floors, in unfinished basements and accessible attics.

NM cables shall be protected from physical damage when it passes through factory or field punched, cut or drilled holes in metal members. A bushing or grommet firmly secured in place is recommended (CEC Rule 12-516).

Please refer to the following for further details and complete information:

1. UL 719, ANSI C33.56 Safety Standards for Nonmetallic Sheathed Cable
2. UL 514A and 514B Safety Standards for Outlet Boxes and Fittings
3. NEMA FB-1 Standards Publication: Fittings, Cast Metal Boxes and Conduit Bodies for Conduit, Electrical Metallic Tubing and Cable
4. CEC Section 12-500 Wiring methods (Nonmetallic Sheathed Cable)
5. CSA C22.2 No. 48 Safety Standards for Nonmetallic Sheathed Cable
6. CSA C22.2 No. 18.1 and 18.3 Safety Standards for Outlet Boxes, Conduit Boxes and Fittings

Please Note

The excerpts and other material herein, whether relating to the Canadian Electrical Code 2012 Part I, the Underwriters Laboratories, Inc. listing, to industry practice or otherwise, are not intended to provide all relevant information required for use and installation. Reference to original or primary source material and data is mandatory before any application or use is made of the product.

Nonmetallic Sheathed Cable Fittings

Suggested Specifications



Series 3300

Nonmetallic Sheathed Cable
and Flexible Cord Fittings
(All Plastic)



Series 3302M

Nonmetallic Sheathed Cable
and Flexible Cord Fittings
(Steel)



Series 3210

Knockout Bushings



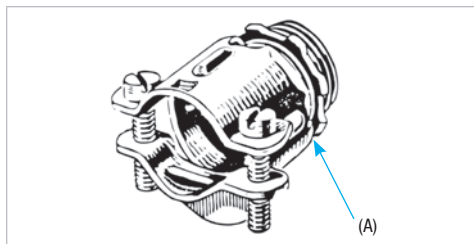
Series 1942

Insulated Nipples

- Where nonmetallic sheathed cable or flexible cord terminates into a threaded or threadless opening, terminating fittings used shall be approved for the purpose by nationally recognized laboratory, inspection agency or product evaluation organization.
- Terminating fittings shall be of malleable iron, steel, or thermoplastic construction designed to provide adequate strain relief and positively prevent damage to jacket or conductor insulation such as Series 3300 or 3302M manufactured by Thomas & Betts. Ferrous metal fittings shall be electro-zinc plated inside and outside including threads and bushed with a nylon insulated throat. Thermoplastic material used for fitting construction shall be of high impact strength suitable for 105°C/221°F service with a UL flammability rating of 94V-1.
- Where nonmetallic sheathed cable passes through either factory or field punched, cut or drilled holes in metallic members, the cable shall be protected by thermoplastic bushing such as Series 3210 manufactured by Thomas & Betts. Bushing shall be firmly secured in opening. Nylon bushed metallic fittings such as Thomas & Betts Series 1942 may be substituted as required.

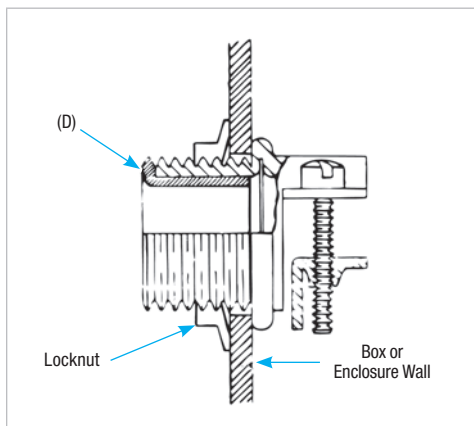
Nonmetallic Sheathed Cable Fittings

Nonmetallic Sheathed Cable and Flexible Cord Fittings (Steel)

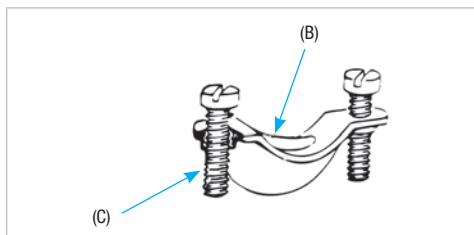
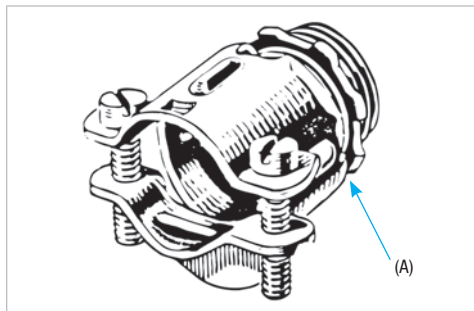


3302M Series

Nonmetallic Sheathed
Cable Fitting



Typical Installation



Application

- To connect nonmetallic sheathed cable and flexible cord to a box or an enclosure

Features

- Rugged all steel/malleable iron construction (A)
- Rounded cable clamp grip provides superior mechanical holding power without damaging conductor insulation or outer jacket (B)
- Clamp designed to cover body opening for a neat and safe installation
- Screws thread into clamp and not body; screw heads are snug with body and ends of screws do not project beyond the body (C)
- Insulator firmly secured in place protects conductors and reduces wire pulling effort; protects threads from damage during handling (D)
- Locknut designed to secure fitting to a box or enclosure; will not vibrate loose

Standard Material

Body 1/2 in. thru 1 in. Steel;
1-1/4 in. thru 2 in. Malleable Iron

Clamp 1/2 in. thru 1-1/4 in. Steel;
1-1/4 in. thru 2 in. Malleable Iron

Locknut All Steel

Insulator Thermoplastic

Standard Finish

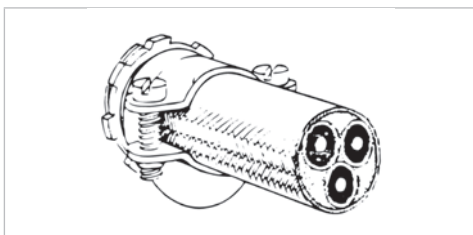
All steel and malleable iron parts — Electro Zinc Plated & Chromate Coated

Range

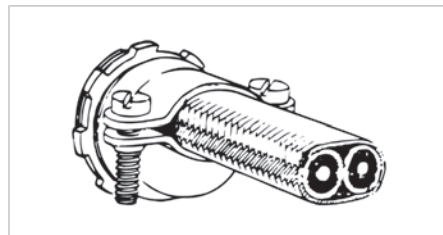
- Hub Size 1/2 in. thru 2 in. Hubs provided with straight pipe threads (NPS)
- Cable 2 #14 thru 4 #4 Type NM
- Cable Outside Diameter 0.250 in. to 1.150 in

Conformity

UL 514B
CSA C22.2 No. 18.3
NFPA 70-2008 (ANSI)
NEMA FB-1
Federal Standard H-28 (Threads)



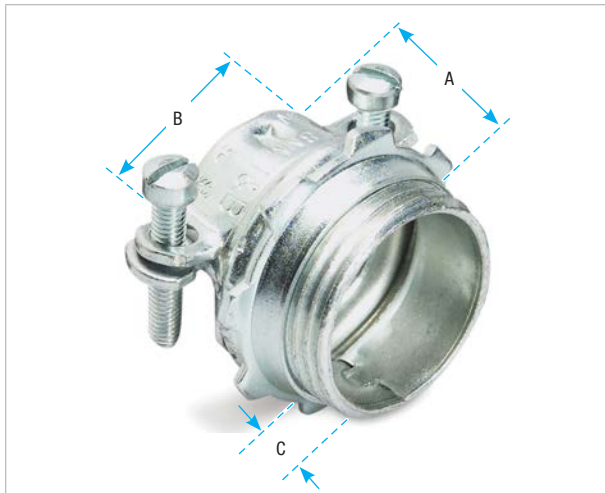
Typical Installation
(Flexible Cord)



Typical Installation
(NM-Sheathed Cable)

Nonmetallic Sheathed Cable Fittings

Two-Screw Fittings



Steel or malleable iron.

Rounded cable grip and smooth bushing protect the cable sheath and wire insulation. Since saddle is threaded, screws do not travel or extend beyond the fitting body as it is clamped to the cable. An extra lip on the saddle closes the unused part of the fitting opening.



Cat. No.		K.O. Size (in.)	UL Listed & CSA Certified for the following Single (1) and Pairs of (2) NM & NMC Cable	UL Listed & CSA Certified for the following Service Entrance Cables	Dimensions (in.)			Cable Opening (in.)	
Non insulated	Insulated				A	B	C	max.	min.
3302-C*	3302M-C	1/2	(1) 2#14, 2#12, 2#10, 3#14, 3#12, 3#10, (2) 2#14, 2#12	2#12 thru 2#4, 3#12, 3#10	31/32	1-3/8	1	0.590	0.250
3303-C	3303M	3/4	(1) 2#8, 2#6, 3#8 (2) 2#12, 2#10, 2#8, 3#14	2#8 thru 2#1/0, 3#8, 3#6, 2#6 + #8 GND	1-1/4	1-5/8	1-3/16	0.750	0.530
3304	3304M	1	(1) 3#8, 3#6, 3#4 (2) 2#8, 3#10	2#1, 2#1/0, 3#6 thru 3#2, 2#4 + #6 GND, 2#3 + #5 GND, 2#2 + #4 GND	1-15/32	1-7/8	1-1/4	0.990	0.690
3305	3305M	1-1/4	(1) 3#8, 3#6, 3#4 (2) 2#8, 2#6, 2#4, 3#8	3#2 thru 3#2/0, 2#1 + #3 GND, 2#1/0 + #2 GND, 2#2/0 + #1 GND	1-15/16	2-7/32	1-9/32	1.320	0.850
3306	3306M	1-1/2	(1) 3#4	3#3/0, 3#4/0, 2#3/0 + #1/0 GND, 2#4/0 + #2/0 GND	2-5/32	2-21/32	1-5/8	1.515	0.930
3307	3307M	2	Max. 1.98 in., Min. 1.15 in.						
3308†	—	2-1/2	Max. 2.38 in., Min. 1.5 in.						
3309†	—	3	Max. 2.88 in., Min. 1.75 in.	—	2-25/32	3-5/16	1-29/32	1.980	1.150
3310†	—	3-1/2	Max. 3.38 in., Min. 2.25 in.						
3311†	—	4	Max. 3.88 in., Min. 2.5 in.						

* UL Listed for use with rubber and thermoplastic flexible cords (both single and multiple cords and 2 oval cables)

† Not UL Listed or CSA Certified

UL Listed for multiple cords and cables

Nonmetallic Sheathed Cable Fittings

Nonmetallic Sheathed Cable and Flexible Cord Fittings (All Plastic)

Application

- To connect nonmetallic sheathed cable and flexible cord to a box or an enclosure

Features

- Provides strain relief by partially deflecting cable (A); therefore:
 - Fitting will not damage outer covering or jacket of cable, or conductor insulation; designed to give safe trouble-free installation
 - Holding power and cable strain relief are not effected by surface finish of outer covering or cable jacket
 - Fitting provides superior holding power far in excess of listing agency requirements.
- Snap-in one piece design; accommodates variation in knockout dimensions, saves installation time (B)
- All high impact thermoplastic construction provides:

- Insulated throat; conductors are protected from abrasion
 - Improved dielectric strength, and elimination of potential shorts
 - Corrosion resistance
- Wide range—reduces inventories
 - Fitting may be pre-installed in box K.O., or on cable

Standard Material

All high impact thermoplastic — UL Class 94V-1 suitable for 105°C application.

Standard Finish

As Molded

Listing/Certification

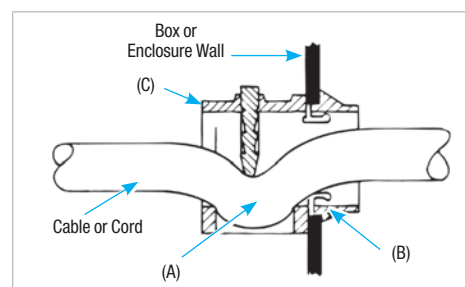
Cat. No. 3201, 3350 for factory installation

Conformity

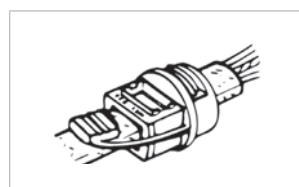
UL 514B
CSA C22.2 No.18.3
NFPA 70-2008 (ANSI)



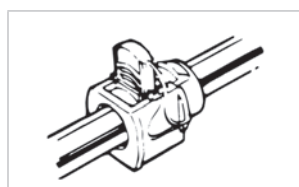
3300 Series



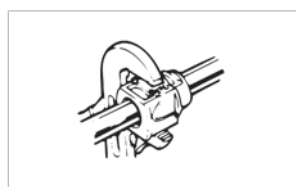
Typical Installation



1. Remove sheath from end of cable (4 in. or more as required). Insert cable through fitting as shown (Cable under button).

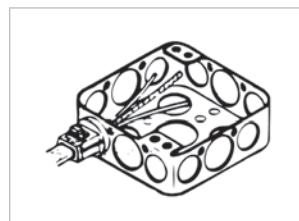


2. Insert button into cavity.

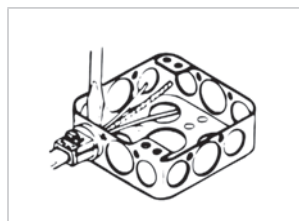


3. With grooved pliers, or parallel jaw type pliers (commercially available) squeeze button into cord or wires as far into fitting body as possible.

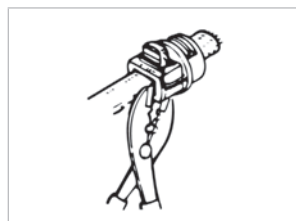
Note: It may be necessary to re-adjust pliers to insure button is properly installed.



4. Snap fitting into knockout box. If desired this step can be done prior to Step 1.



5. To remove from knockout box depress ears.



6. To remove from cable cut fitting as shown ears.

Cat. No.	Knockout Size (in.)	Cable/ Cord Range
Range		
3300	1/2	10-2, 12-2 & 14-2 type NM Cable 0.125 in. to 0.300 in. outside diameter cord
3201-TB & 3350	1/2	10-3, 12-3, 14-3, 10-2, 12-2, 14-2 Type NM Cable; also multiple (2) 12-2 and 14-2 Type NM Cable; 0.300 in. to 0.600 in. outside diameter cord 8-3 and 6-3 type
3202	3/4	NM cables; also Multiple (2) 14-3 and 10-2 Type NM Cable; 0.500 in. to 0.850 in. outside diameter cord

Nonmetallic Sheathed Cable Fittings

All Plastic Fitting for NM Cable and Flexible Cord



Figure 1

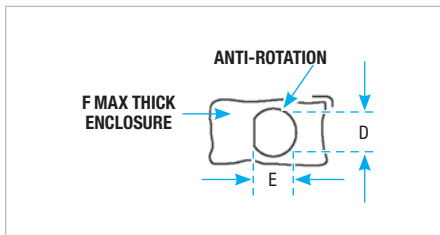
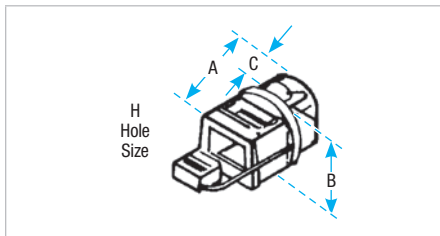


Figure 2

Note: If rotation in hole is to be avoided, use connector in a hole dimensions per column D and E.

High impact thermoplastic. UL 94-V1

Features push-in design. Captive locking wedge secures cable with single squeeze of standard electrician's pliers. Provides excellent insulation, strain-relief and high pull-out value.

Cat. No.	Size Range	K.O. Size (in.)	Fig.	Dimensions (in.)					F Max. Thk. Enclosure (in.)	H (in.)
				A	B	C	D	E		
3300	For use with 10-2, 12-2 and 14-2 NM cables; 18-2 and 18-3 SJ and SJO cords and 18-2 SV, SVO, SJT and SJTO cords, single or multiple; cord capacity 0.125 in. - 0.300 in. diameter	1/2	2	1-1/32	15/16	3/8	0.880	0.795	0.080	5/16 x 9/16
3350	For use with 10-3, 12-3, 14-3, 10-2, 12-2, 4-2 NM cables; multiple (2) 12-2 and 14-2 N multiple flexible cords in wire range 0.300 in. to 0.600 in.	1/2	1	1-11/32	1	7/16	0.880	0.795	0.080	21/32 dia.
3202	For use with 8-3 and 6-3 NM cables; (2) 14-3, 14-2, 12-2 and 10-2 NM cables; single and multiple flexible cords in wire range 0.500 in. to 0.850 in.	3/4	1	1-1/2	1-5/16	7/16	1.100	1.005	0.090	7/8 dia.

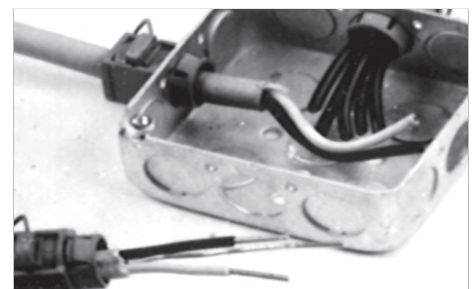
Temperature Rating: 105°C



Snap captive locking wedge into fitting's cavity



Press locking wedge into cavity which locks onto cable



Cat. No. 3201 is ideal for multiple flexible cords and cable

Nonmetallic Sheathed Cable Fittings

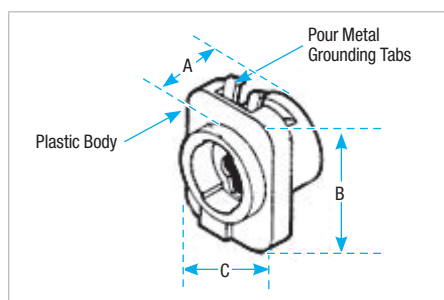


Snap-in Fitting for Flexible Metal Conduit



Cat. No.	Conduit Size (in.)	K.O. Size (in.)	Dimensions (in.)		
			A	B	C
100TB	3/8	1/2	27/32	1-13/32	1-31/32
100BP					

Temperature Rating: 105°C
UL 94-V1



No locknut required. No special tools required. High impact thermoplastic with steel insert.



Swivel Tray Clamp



Cat. No.	Conduit Size (in.)
6209	1/2-3/4
6211	1-1-1/4
6214	1-1/2-2
6216	2-1/2-3
6218	3-1/2-4



Swivel cable tray clamps for aluminum and steel trays with regular or reinforced flanges

- Serrations and biting teeth on clamping saddle provides a high quality bond between conduit and clamp
- 1/2 in. to 6 in. sizes that can be clamped to any position in a 90° arc
- Hardened steel screws bite into tray and provide positive bond
- Malleable iron hub and steel u-bolt accepts conduit from any angle



Cable Tray Clamp



Cat. No.	Conduit Size (in.)
6210	1/2-3/4
6212	1-1-1/4