

### 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

Cat. No.			Cino (in )	Dimensions (in.)		
Stl. or M.I.	Alum.	SST	Size (in.)	Α	В	
139* <sup>†</sup>	_	_	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	

<sup>\*</sup> Hex shape

Aluminum locknuts comply with federal standard of copper-free aluminum; less than 0.4% copper For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details





### 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.

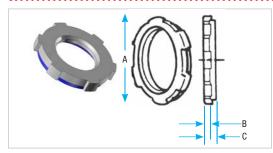
### **Bonding Locknuts**





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

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details 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**





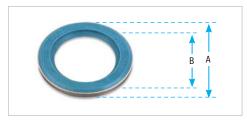
Cat. No.	Cina (in )	Dimensions (in.)				
	Size (in.)	Α	В	C		
141SL	1/2	1.140	1/8	1/4		
142SL	3/4	1.420	5/32	9/32		
143SL	1	1.770	11/64	9/32		
144SL	1-1/4	2.281	11/64	5/16		
145SL	1-1/2	2.598	11/64	9/32		
146SI	2	3 175	3/16	19/64		

Steel finish: zinc plated

<sup>\*\*</sup> Case hardened locknuts

### **Sealing Rings with Stainless Steel Retainer**





Sealing Ring-Santoprene Thermoplastic Rubber

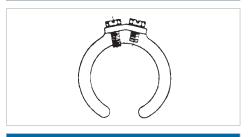
These sealing rings provide a liquid tight, dust tight, seal of fitting at enclosures

Cat. No.	Conduit Size (in )	Dimensions (in.)		
val. No.	Conduit Size (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	
531008	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**



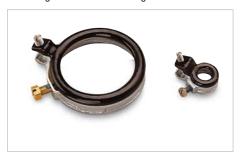
Cat. No.	Size (in.)
3650	1/2
3651	3/4
3652	1
3653	1-1/4
3654	1-1/2
3655	2
3656	2-1/2
3657	3
3658	3-1/2
3659	4
3661	5
3662	6

### 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

### Blackjack® - Conduit Grounding Bushings





Cat. No.			Dim.					
Zinc Plated Malleable Iron	Aluminum	Conduit Size (in.)	ØA Max.	ØB Max.	ØC Max.	ØD Max.	E Max.	Wire Range
BG050-14-20	BGA050-14-20	1/0	1.251	0.569	1.181	2.134		14-2/0
BG050-14-4	BGA050-14-4	1/2	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	0.696	14-2/0
BG075-14-4	BGA075-14-4	3/4	1.533	0.772	1.030	2.168	0.090	14-4
BG100-14-20	BGA100-14-20	4	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	0.4/0	3.148	2.412	1.181	4.341		14-2/0
BG250-6-40	BGA250-6-40	2-1/2	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	3	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	3-1/2	4.542	3.491	1.524	5.639	0.070	6-4/0
BG400-14-20	BGA400-14-20	4	5.042	3.975	1.181	5.966	0.978	14-2/0
BG400-6-40	BGA400-6-40	4	5.042	3.975	1.524	6.139		6-4/0
3G500-14-20	BGA500-14-20	_	6.136	4.991	1.181	7.045		14-2/0
3G500-6-40	BGA500-6-40	5	6.136	4.991	1.524	7.207		6-4/0
BG600-14-20	BGA600-14-20		7.199	6.009	1.181	8.087		14-2/0
BG600-6-40	BGA600-6-40	6	7.199	6.009	1.524	8.409		6-4/0

Suggested Specifications Insulated grounding and bonding bushing (Series BG050-BG600)

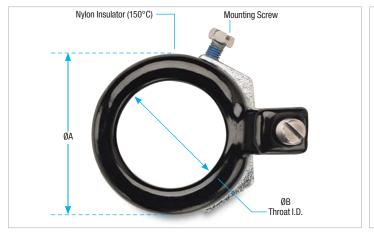
Where code requires bonding and grounding of single or multiple metal conduits, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing Series BG050-14-20 as manufactured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







### **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

- · 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

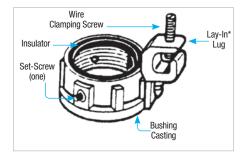
**Body:** Electro-zinc plated

Lay-in lug: Aluminum/tin-plated

**Insulator:** Thermoplastic

150°C/302°F

Application with 94V-0 flammability



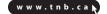
Cat. No.	Conduit Size (in.)	Bushing Dia. (in.)	Throat Dia. (in.)	Lug Lenght (in.)	Swing Radius (in.)	Bushing Height (in.)	Wire Range AWG CU/AL
3870-TB	1/0	1.125	0.560	1.310	1.212	0.057	14-4
3861	1/2	1.125	0.560	1.675	1.402	0.657	8-2/0
3871-TB	0/4	1.420	0.742	1.310	1.360	0.000	14-4
3862	3/4	1.420	0.742	1.675	1.550	0.660	8-2/0
3872	1	1.770	0.944	1.310	1.535		14-4
3882	'	1.770	0.944	1.675	1.725	0.735	8-2/0
3873	1-1/4	2.190	1.242	1.310	1.745	0.735	14-4
3883	1-1/4	2.190	1.242	1.675	1.935		8-2/0
3874	1-1/2	2.468	1.449	1.310	1.884		14-4
3884	1-1/2	2.468	1.449	1.675	2.074	0.770	8-2/0
3875	2	3.031	1.860	1.310	2.165	0.770	14-4
3889	2	3.031	1.860	1.675	2.355		8-2/0
3876		3.516	2.222	1.310	2.408	0.940	14-4
3886	2-1/2	3.516	2.222	1.675	2.598		8-2/0
3993		3.516	2.222	2.230	2.928		6-4/0
3877		4.234	2.761	1.310	2.767		14-4
3887	3	4.234	2.761	1.675	2.957		8-2/0
3994		4.234	2.761	2.230	3.287	0.075	6-4/0
3878		4.781	3.193	1.310	3.040	0.975	14-4
3863	3-1/2	4.781	3.193	1.675	3.230		8-2/0
3995		4.781	3.193	2.230	3.560		6-4/0
3879		5.328	3.623	1.310	3.314		14-4
3864	4	5.328	3.623	1.675	3.504	0.980	8-2/0
3996		5.328	3.623	2.230	3.834		6-4/0
3880		6.328	4.542	1.310	3.814		14-4
3865	5	6.328	4.542	1.675	4.000	0.985	8-2/0
3998		6.328	4.542	2.230	4.334		6-4/0
3881		7.406	5.458	1.310	4.353		14-4
3866	6	7.406	5.458	1.675	4.543	1.200	8-2/0
3999		7.406	5.458	2.230	4.875		6-4/0

Temperature rating 150°C

Meets Coast Guard Regulation CG293
For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details

\*Contact your Regional Sales Office for copper lay in lug





# B B

### Nylon insulated metallic bushings Steel or malleable iron (Steel thru 1-1/2 in.) The Canadian Electric Code 10-906 (2) calls for protetion of

The Canadian Electric Code 10-906 (2) calls for protetion 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.

# Rigid and Intermediate Metal Conduit Fittings

### **Insulated Throat Fittings**



Cat. No.		Cina (in )	Dimensi	ons (in.)
Steel or M.I.	Aluminum	Size (in.)	A	В
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

<sup>†</sup> 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.		Cina (in )	Dimensi	ons (in.)
Steel or M.I.	Aluminum	Size (in.)	A	В
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

<sup>\*</sup> Not UL Listed or CSA Certified

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



### **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 Na	Cino (in )	Dimension	ons (in.)
Cat. No.	Size (in.)	Α	В
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

# Insulating Bushing for Threadless Rigid Conduit and Intermediate Metal Conduit



### pulled or on which conductors may bear while in service

**Application** 

Designed to be popped onto, and bush, conduit end

· When assembled to the end of a threadless

surface over which conductors may be

conduit, provides a well rounded insulating

- 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)



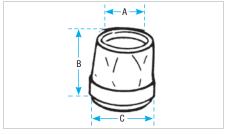
- Cut conduit end squarely. Remove sharp edges and burrs on inside and outside diameters by reaming or filing.
- 2. Slip the pop-on bushing over the end of the conduit.



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.	Sino (in )	Dimensions (in.)				
Gal. NO.	Size (in.)	Α	В	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



# Conduit Fittings

**Rigid and Intermediate Metal** 

### **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**



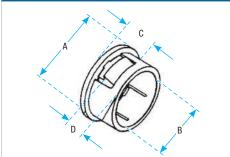


Cat. No.	Trade Size (in.)	For use in KO* +.032/-0.16 (in.)	A (in.)	B (in.)	Wall Thickness of Elec. Box (in.)	C (in.)	D (in.)
3210	1/2	0.875	1.000	0.725			
3211	3/4	1.109	1.215	0.940	0.095 MAX	0.360	0.180
3212	1	1.375	1.500	1.200			
3213	1-1/4	1.734	1.865	1.550		0.400	0.210
3214	1-1/2	1.984	2.240	1.760	0.140 MAX	0.500	0.010
3215	2	2.469	2.740	2.245		0.530	0.310

\* Per UL and NEMA standards Material: Thermoplastic

Flammability classification of 94V-1 Per UL 94 Service temperature: -40°C to 105°C

### 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.

### **INSULINER®** Sleeves





Oot No	Cina (in )	Dimensi	ons (in.)
Cat. No.	Size (in.)	A	В
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	0.040
426-TB	1-1/2	1	0.050
427-TB	2	1-1/8	0.050
428-TB	2-1/2	1-1/4	
429	3	1-1/2	
430-TB	3-1/2	1-25/32	0.005
431	4	2-1/32	0.035
433	5	2-1/2	
434	6	2-1/2	

Oxygen index >28°



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.



### **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**

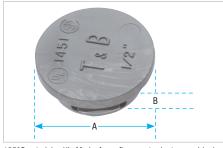
As molded

### 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**

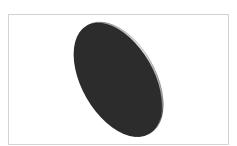
UL 514B CSA C22.2 No. 18.3 NFPA 70-2008 (ANSI)



 $105^{\circ}\text{C}$  rated by UL Made from flame retardant, non-dripping thermoplastic.

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

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

### 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

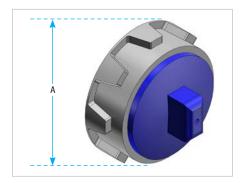
ANSI C80.4

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."



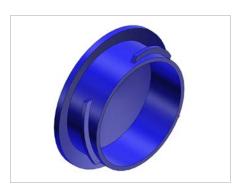
### **Bushings and Push-Penny® Plugs**





Oat Na	Cina (in )	Oles (in)	Assembly consist of		
Cat. No.	Size (in.)	A (in.)	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



### **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** 1/2in.-Steel

3/8 in., 3/4 in. through 6 in. - Malleable Iron

Insulator

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

Electro-zinc Plated & Chromate Coated 1942 Series

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

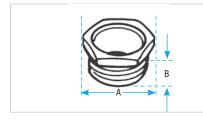
Federal Standard H-28 (Threads)



1942 Series 842AL Series (Non Insulated)



Steel, malleable iron or aluminum



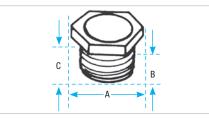
### **CHASE® Nipples**

Cat. No.		Cino (in )	Dimensions (in.)		
Stl. or M.I.	Alum.	Size (in.)	A	В	
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	

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



### Steel or malleable iron



### CHASE® Nipples – Nylon Insulated



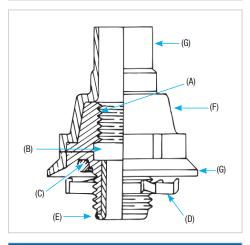


Cat. No.	Cinc (in )	Dimensions (in.)		
Cat. No.	Size (in.)	A	В	C
1942	1/2	15/16	1/2	19/32
1943	3/4	1-3/16	17/32	23/32
1944	1	1-7/16	21/32	7/8
1945	1-1/4	1-3/4	25/32	1-1/32
1946	1-1/2	2-1/16	13/16	1-3/32
1947	2	2-9/16	31/32	1-11/32
1948	2-1/2	3-1/16	1-1/16	1-7/16
1949	3	3-13/16	1-3/16	1-19/32
1950	3-1/2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

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

# (A) Predetermined Compression (C) (D)

### 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
  - 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.





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)	
'0' 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)

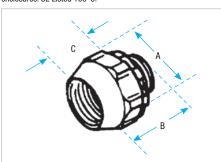
### **Conformity**

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)



### Nylon insulated

Aluminum, steel, or malleable iron (steel through 1 in.), With Neoprene "0" Ring provides a watertight threaded hub on enclosures. UL Listed 105°C.



### Steel/Malleable Iron and Aluminum Hub Fittings†



Cat. No.		Cina (in )		Dimensions (in.)	)	Wall Thk.
Stl. or M.I.	Alum.**	Size (in.)	Α	В	C	Max. (in.)
370	370AL	1/2	1-3/8	1-5/16	3/4	
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	5/16
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	
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	1/2
381-TB	_	5	8	4	2-3/16	
382-TB	_	6	9-3/16	4	2-3/16	

<sup>\*\*</sup> Aluminum not available with insulated throat

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



# Bullet® Hub Fittings with Bonding Locknut – Nylon Insulated



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

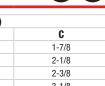
CSA certified watertight and dust tight

<sup>†</sup> UL Listed raintight and CSA Certified watertight and dust tight

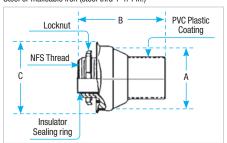


### **PVC Coated Hub for Rigid Conduit**









Cat. No.	Cina (in )	Dimensions (in.)					
ual. NV.	Size (in.)	A	В	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			

<sup>\*485</sup> Series are CSA Certified Watertight and Dustight for Ordinary Locations

### **Spacing Chart for Bullet® Hubs**



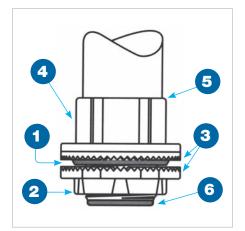
Center to Center Spacing Conduit Sizes (in.)								Min. Space from Center of Bullet® Hub to Wall	KO Diameter			
	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	of Box (in.)	Min. (in.)
1/2	1-7/16	1-5/8	1-3/4	2-1/8	2-3/8	2-5/8	2-7/8	3-5/16	3-1/2	3-7/8	3/4	7/8
3/4	_	1-3/4	1-7/8	2-1/4	2-1/2	2-3/4	3	3-1/2	3-3/4	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	_	_	<u> </u>	_		3-3/4	4	4-1/2	4-3/4	5	1-7/8	2-1/2
2-1/2	_	_	<u> </u>	_	_	_	4-1/4	4-3/4	5	5-3/8	2-1/8	3
3	_	_	<u> </u>	_	_	_	_	5-1/8	5-3/8	5-3/4	2-5/8	3-5/8
3-1/2	_	_	<u> </u>	_	_	_	_	_	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								- 4 \				
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 obst	ruction to co	enter 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

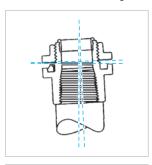


1. Sealing ring and groove with innovative profile outperforms standard '0' ring design. Sealing ring is captive before installation and resists buckling or slipping during installation. The seal groove is designed for optimum compression of the sealing ring. The sealing ring is designed to provide a complete 360° seal, even when the conduit is not perpendicular with the enclosure. (See Figure 1)

# 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.





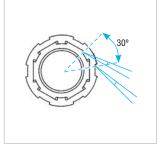


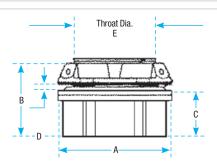
Figure 1

Figure 2

Figure 3

- 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.	Cat. No.	Trade Size		Dia. (in.)		Max. Panel	Throat
Zinc Aluminum	(in.)	Α	В	C	Thickness D (in.)	Dia. E (in.)	
H050-TB	H050A	1/2	1-7/16	1-9/16	7/8	2/16	19/32
H075-TB	H075A	3/4	1-21/32	1-19/32	29/32	3/16	25/32
H100-TB	H100A	1	2	1-13/16	1-1/16		1
H125-TB	H125A	1-1/4	2-3/8	1-7/8	1-1/16	1	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	1/4	2-13/32
H300-TB	H300A	3	4-3/8	2-21/32	1-19/32	1/4	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: Insulating Throat: Sealing Ring

zinc or copper free aluminum thermoplastic temp. rating 105°C, Flammability Rating: 94V-0 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,

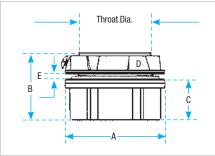
Groups E, F and G, Class III, Division 1, 2 and Type 4. Chrome Plated Hubs (suffix-"CP") are rated NEMA 4X.

For Aluminum Hubs add suffix A (i.e. H050A).









### **T&B Grounding Hub**



			Dimensions (in.)							
Cat. No. Zinc Cat. No. Aluminum		Trade Size		Dia. (in.)	D	_ E				
	Aluminum	(in.)	A	В	C	Max. Panel Thickness	Throat Dia.			
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")

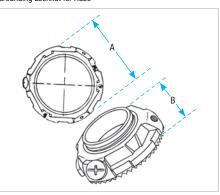
For Chrome Plated Hubs add suffix **CP** (i.e. H050GRCP)
For 316 Stainless Steel Hubs add suffix **SST** (i.e. H050GRSST)
For PVC coating add suffix **PVC** (i.e. H050GRPVC-C)
Meets NEMA sealing requirements for NEMA 3R, 4 & 13 enclosures
UL Listed and CSA Certified

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
L500GRL	L500GR-C	5	6-5/8	23/32	3/8-16 x 3/8	#2

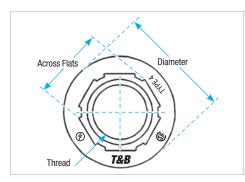
Material — Locknut: zinc or copper-free aluminum
For Aluminum Locknuts add suffix **A**. (i.e. L050GRA-C)
For Chrome Plated Locknuts add suffix **CP**. (i.e. L050GR-CP)
For 316 Stainless Steel Locknuts add suffix **SST** (i.e. L050GRSST).



### **T&B Bulkhead Fittings**



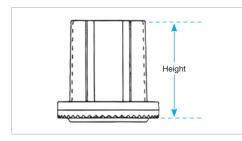






<b>Bulkhead F</b>	itting	
Cat. No. Zinc	Cat. No. Aluminum	Trade Size (in.)
H050BHD	H050BHDA	1/2
H075BHD	H075BHDA	3/4
H100BHD	H100BHDA	1
H125BHD	H125BHDA	1-1/4
H150BHD	H150BHDA	1-1/2
H200BHD	H200BHDA	2
H250BHD	H250BHDA	2-1/2
H300BHD	H300BHDA	3
H350BHD	H350BHDA	3-1/2
H400BHD	H400BHDA	4
H500BHD	H500BHDA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

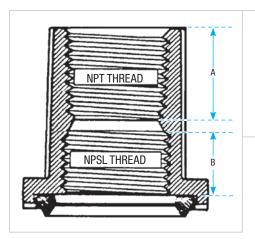






Thru Bulkhead Fitting						
Cat. No. Zinc	Cat. No. Aluminum	Size (in.)				
H050TBF	H050TBFA	1/2				
H075TBF	H075TBFA	3/4				
H100TBF	H100TBFA	1				
H125TBF	H125TBFA	1-1/4				
H150TBF	H150TBFA	1-1/2				
H200TBF	H200TBFA	2				







Thru Bulkhe	ead 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

Trada Cina (in )	Throad (in )	Unimbt (in )	Diameter (in )	Acres Elete (in )	A (im )	D (im )
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





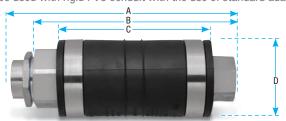
### T&B XD Expansion/Deflection Coupling for Rigid Conduit

## Watertight, flexible connections support movement and thermal expansion

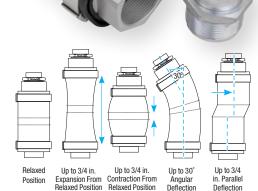
Use the XD Expansion/Deflection Coupling to join two conduit runs in applications where movement in any direction is required. The coupling provides a flexible, watertight connection, accommodating axial or parallel movement of up to 3/4 in. and angular movement of up to 30° from normal position. While 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<sup>®</sup> 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)



Cat. No.	Hub Size	Dimensions (in.)						
Gal. NO.	(in.)	Α	В	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			



### Standard Material/Finish

**Hub** . . . . . Ductile cast iron, zinc-plated and aluminum acrylic painted

Inner Sleeve . . . . . . Sainless Steel

Internal Grounding

Bonding Jumper. . . . . Flexible copper braid

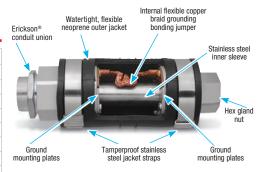
**Ground Mounting** 

Plates . . . . . Copper

**Hub Rings** . . . . . Zinc-plated steel

Outer Jacket...... Molded neoprene (natural black)

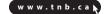
Jacket Straps . . . . . Stainless Steel



### **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





# T&B XJG T&B XJG Internal Bonding Jumper Bonding Bushing Gland Nut Jumper Teflor® Packing Ring (E.I. DuPont Trademark) Conduit (not supplied) Stationary Conduit (not supplied) Stationary Conduit (not supplied) Fitting will

# Rigid and Intermediate Metal Conduit Fittings

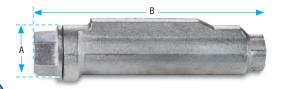
### **T&B XJG Conduit Expansion Couplings for Rigid Conduit**

**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











available PVC Coated

Interior Finish..... Zinc plating, aluminum acrylic paint Packing..... PTFE/Synthetic fiber Material

(Teflon® Coated)

Slide the fitting onto the conduit until it stops at the internal sliding bushing. Tighten and you're ready. No parts to reassemble!



**Standard Material/Finish** 

Bonding Jumper. . . . Copper Braid

Internal

**Exterior and** 

Teflon® is a trademark of DuPont.

**Body** . . . . . Malleable or Ductile Iron,

With a wrench, tighten the gland nut to compress the Teflon® packing, creating a raintight seal around the conduit



Thread the next length of conduit into the other end of the fitting and tighten.

Cat. No.	Cinc (in )	Mayamant (in )	Dimensions (in.)				
Gat. No.	Size (in.)	Movement (in.)	Α	В	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.





### **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** . . . . . Ductile Iron, available PVC coated

Internal

Bonding Jumper. . . . . Tinned copper braid

**Exterior and** 

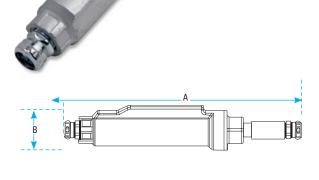
Interior Finish..... Zinc plating, aluminum acrylic paint

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

### **Offset Reducers**



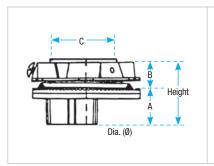


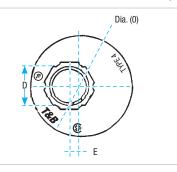
Cat. No.	Cat. No.	Trade	Height	Diameter	Diameter Dim		ensions (in.)		
Zinc	Aluminum	Size (in.)	(in.) (in.)		Α	В	C	D	Е
H150-0750RGR-TB	H150-0750RGRA-TB	1-1/2-3/4	1-21/32	2-3/4	15/16	23/32	1-29/32	1-9/32	11/32
H150-1000RGR-TB	H150-1000RGRA-TB	1-1/2-1	1-25/32	2-3/4	1-1/16	23/32	1-29/32	1-9/16	7/32
H150-1250RGR-TB	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

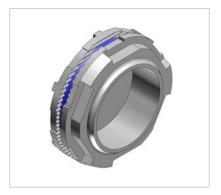
Material-Offset Reducer and Locknut: zinc or copper-free aluminum

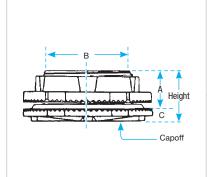
Insulating Throat: thermoplastic temp. rating 105°C; Flammability rating 94V-0 Sealing Ring: Nitrile (BUNA "N")

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









### **Capoffs**





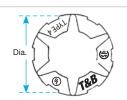
Cat. No.		Trade Size	Trade Size Height	Diameter	Dimensions (in.)		
Zinc		(in.)	Α	В	C		
H050CAP	H050CAPA	1/2	1-13/32	1-7/16	19/32	27/32	3/16
H075CAP	H075CAPA	3/4	1-15/32	1-11/16	19/32	1-1/16	3/16
H100CAP	H100CAPA	1	1-11/16	2	11/16	1-5/16	1/4
H125CAP	H125CAPA	1-1/4	1-25/32	2-3/8	23/32	1-21/32	1/4
H150CAP	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

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)



# 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)



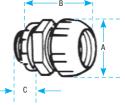
### 8123 Series



8130 Series



8120 Series



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.

### **Nylon Insulated Threadless Fittings**





Cat. No.		Conduit Size	Dimensions (in.)			
Nylon Insul.	Non-Insul.	(in.)	Α	В	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	

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details

### 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.

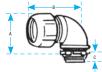
### **Threadless Couplings**





Cat. No.	Cinc (in )	Dimensions (in.)		
Gal. No.	Size (in.)	A	В	
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	

For Dura-Plate  $^{\scriptsize @}$  finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



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.

### **Threadless Short Elbows - Nylon Insulated**





Cat. No.	Cine (in )			
	Size (in.)	Α	В	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

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details





# 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** 

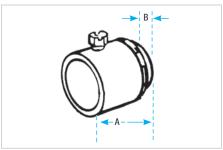
NFPA 70-2008 (ANSI)

NEMA FB-1

Federal Specification W-F-408

Federal Standard H-28 (Threads)





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**

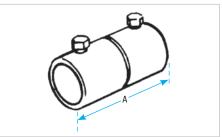




Cat. No.	Conduit Cino (in )	Dimensio	ons (in.)
Gal. NO.	Conduit Size (in.)	A	В
8125	1/2	1-3/8	13/32
8225	3/4	1-1/2	7/16
8325	1	1-13/16	35/65
8425	1-1/4	2	5/8
8525-TB	1-1/2	2-5/16	5/8
8625	2	2-7/16	11/16
8725-TB	2-1/2	3-3/8	1
8825	3	3-7/16	1
8855	3-1/2	3-7/8	1-1/16
8975	4	4-3/16	1-1/8

Sizes 1/2 in.-2 in. made of steel. Sizes 2-1/2 in.-4 in. are malleable iron For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details





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**



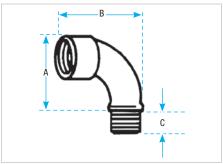


Cat No	Conduit Circ (in )	Dimensions (in.)
Cat. No.	Conduit Size (in.)	Α
8124	1/2	2-1/2
8224	3/4	2-11/16
8324-TB	1	2-27/32
8424	1-1/4	3
8524	1-1/2	3-3/8
8624	2	3-5/8
8724-TB	2-1/2	3-7/8
8824-TB	3	4-1/4
8974	4	5-3/8

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

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details.





The noninsulated elbow has smoothly rounded shoulders to protect conductor insulation

Mallaghle iron

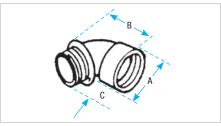
### **Bushed Elbows**



Cat. No.	Cino (in )	Dimensions (in.)			
	Size (in.)	A	В	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	

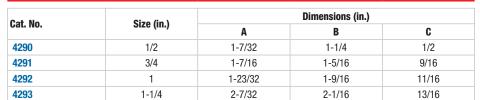
For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details





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

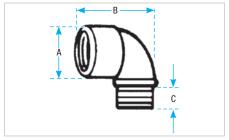
### **Short Elbows - Nylon Insulated**



2-15/32

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details Not UL Listed

1-1/2



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

### **Short Elbows**



13/16



Cat. No.	0: (: )	Dimensions (in.)			
	Size (in.)	A	В	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	

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



2-3/16

674 Series 675AL Series

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

### **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** 

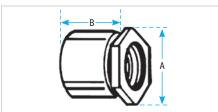
CSA C22.2 No. 18.3

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.		Cino (in )	Dimensions (in.)		
Mal. Iron	Alum.*	Size (in.)	A	В	
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	

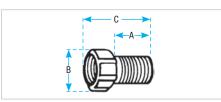
\* Copper-free Aluminum (less than 0.4% Copper) UL Listed and CSA Certified concrete-tight

† Not CSA Certified









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

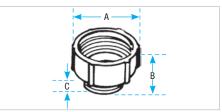
### **Panel Fitting Extensions**





Cat. No.	Cina (in )	Dimensions (in.)			
	Size (in.)	A	В	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 caarefully covered by built-in bushing. Malleable iron

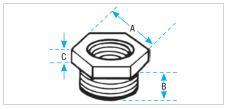
### **Male Enlargers**





Cat. No.	Cina (in )	Dimensions (in.)			
	Size (in.)	A	В	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	

For Dura-Plate® finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details



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

### **Female Reducers**

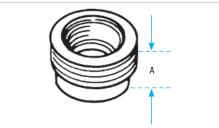




Cat. No.	0: (: )	Dimensions (in.)			
	Size (in.)	Α	В	C	
1250-TB	3/4 to 1/2	1-1/8	5/8	3/16	
1261	1 to 1/2	1-7/16	1-7/16	3/16	
1251	1 to 3/4	1-3/8	11/16	3/16	
1262	1-1/4 to 1/2	1-13/16	21/32	3/16	
1263	1-1/4 to 3/4	1-13/16	23/32	3/16	
1252	1-1/4 to 1	1-3/4	25/32	7/32	
1253	1-1/2 to 1-1/4	2	13/16	1/4	
1254	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	

For Dura-Plate  $^{\scriptsize \odot}$  finish, add prefix 040- to Cat. No. Consult your Regional Sales Office for details





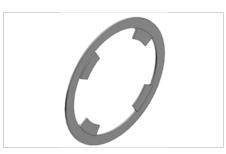
For reducing the threaded opening in conduit bodies or any female threaded fitting. Smooth, built-in bushing completely covers rough ends of conduit. Iron or steel construction. Steel from 600-TB thru 606-TB, also 614 & 615.

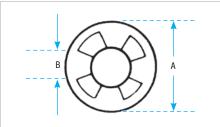
### **Threaded Reducers**





Cat. No.		Cina (in)	Dimensions (in.)	
Stl. or M.I.	Alum.	Size (in)	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**



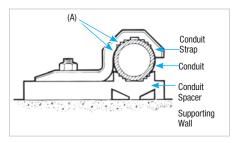


Cat. No.	Size (in.)	Dimensions (in.)		
Gal. NO.		Α	В	
3700	3/4 to 3/8	1.0/0	45/64	
3701	3/4 to 1/2	1-3/8	7/8	
3702	1 to 3/8		45/64	
3703	1 to 1/2	1-5/8	7/8	
3704	1 to 3/4		1-3/32	
3705-TB	1-1/4 to 3/8		45/64	
3706	1-1/4 to 1/2	2	7/8	
3707	1-1/4 to 3/4	2	1-3/32	
3708	1-1/4 to 1		1-23/64	
3709	1-1/2 to 3/8		45/64	
3710	1-1/2 to 1/2		7/8	
3711	1-1/2 to 3/4	2-1/4	1-3/32	
3712	1-1/2 to 1		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		1-3/32	
3716	2 to 1	2-3/4	1-23/64	
3717	2 to 1-1/4		1-23/32	
3718	2 to 1-1/2		1-31/32	

# 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

### 1976AL Series

All copper-free aluminum

### **Standard Finish**

### 1275 Series

Hot Dipped Galvanized

### 1276AL Series

As Cast

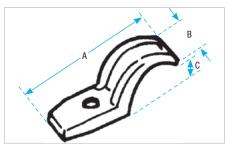
### Range

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

### **Conformity**

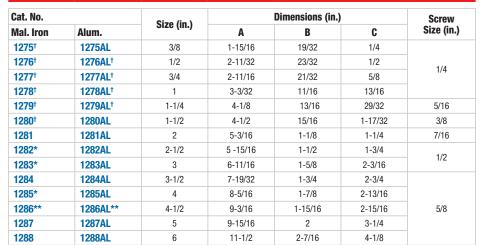
CSA C22.2 No. 18.3 ANSI C80.4 NFPA 70-2008 (ANSI)





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

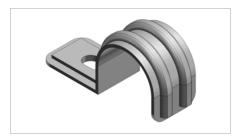
### **Pipe Straps – Malleable Iron or Aluminum**

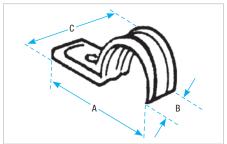


- \* May be used with EMT of same size
- † Not snap on type UL not applicable
- \*\* Not CSA Certified



**(P** 

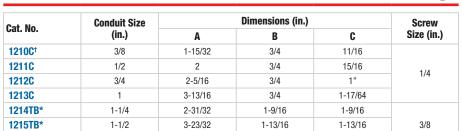




Elongated bolt hole makes alignment easy, even when holes in mounting surface are off center. Snap on features. Steel.

Zinc plated.

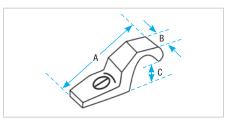
### Pipe Straps - Steel



2-5/16

2-5/16





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**

4-7/16



0-4 11-	Cino (in )	Bolt Size	Dimensions (in.)		
Cat. No.	Size (in.)	(in.)	A	В	C
1275CR	3/8		2	21/32	1/4
1276CR	1/2		2-13/32	25/32	1/2
1277CR	3/4	1/4	2-3/4	23/32	5/8
1278CR	1	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



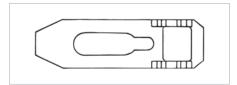
<sup>1216</sup>TB\*
† Not snap on type
UL not applicable

<sup>\*</sup> Not CSA Certified

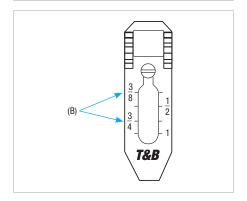
# Conduit Spacers for Rigid Metal Conduit, Intermediate Metal Conduit and Electrical Metal Tubing



### 1350 Series 1350AL Series







www.tnb.ca)

### **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

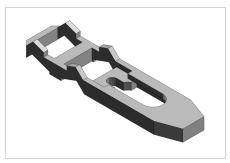
As Cast

### Range

1/2 in. through 6 in. conduit

### Conformity

CSA C22.2 No. 18.3 ANSI C80.4 NFPA 70-2008 (ANSI)

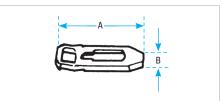


### **Pipe Spacers**

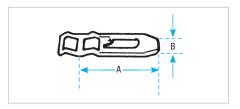


Cat. No.		Cino (in )	Screw	Dimensions (in.)	
Mal. Iron	Alum.	Size (in.)	Size	Α	В
1350	1350AL	3/8, 1/2, 3/4, 1	#7	3	7/8
1351	1351AL	1-1/4-1-1/2-2	#12	5	1-3/16
1352	1352AL	2-1/2-3	#12	9-9/16	1-3/4
1353	1353AL	3-1/2-4	#14	7-9/16	2

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



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



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	В	
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

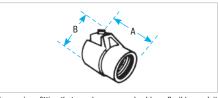


# **Tite-Bite® Combination Couplings Armoured Cable for Threaded Rigid**





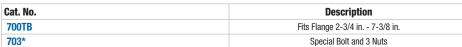
Cat. No.	Cino (in )	Dimensions (in.)		
	Size (in.)	A	В	
440	1/2	1-5/8	1-27/32	
441	3/4	1-3/4	2-1/8	
442	1	2	2-17/32	



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.

### Beam Clamps Adjustable





\* Not CSA Certified



Includes bolts Steel

# Conduit Supports



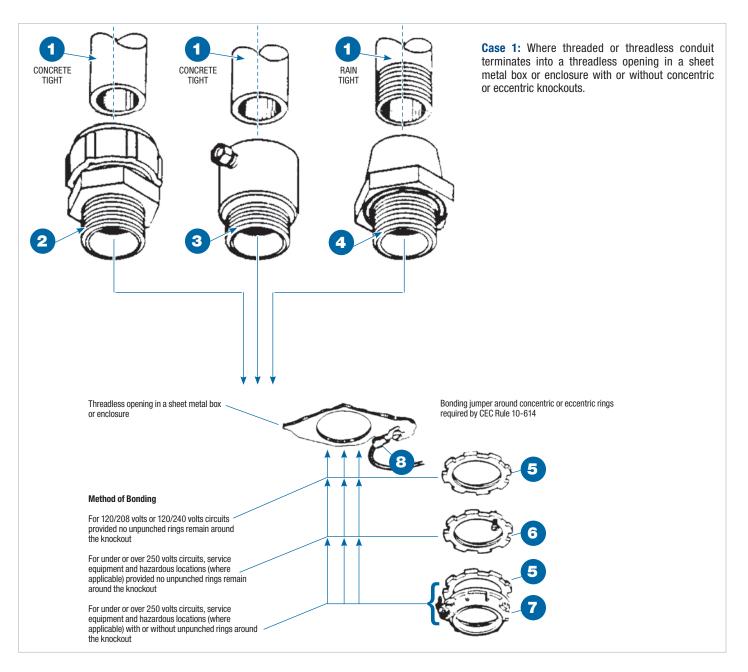


Cat. No.	Size (in.)		
690TB	1/2		
691TB	3/4		
692TB	1		
693TB	1-1/4		



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.

### **Methods of Bonding and Grounding**

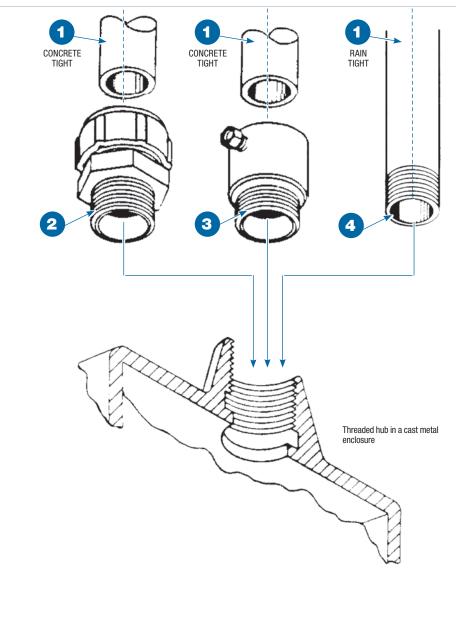


- (1) Threaded or threadless rigid metal conduit or intermediate metal conduit
- (2) T&B Series 8123 or 8124 Threadless Fittings
- (3) T&B Series 8125 Set Screw Fitting
- (4) T&B Series 370 or H050-TB Sealing Hub (Bullet® Hubs)
- (5) T&B Series 140 Locknuts
- (6) T&B Series 106 Bonding Locknut
- (7) T&B Series 3870 Bonding & Grounding Bushing
- (8) T&B Sta-Kon® or Colour-Keyed® lug





### Methods of Bonding and Grounding (cont'd)



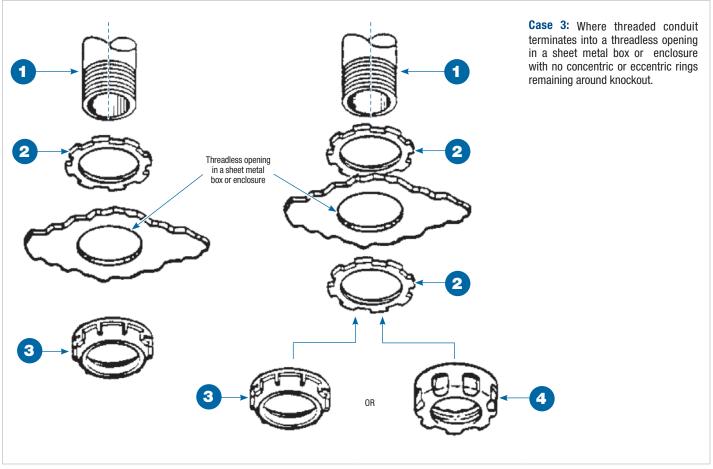
Case 2: Where threaded or threadless conduit terminates into a threaded hub in a cast metal enclosure.

### **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)
  - 10-510 (Olass 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

Methods of Bonding and Grounding (cont'd)

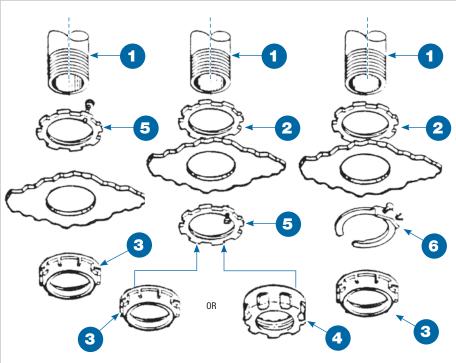


Method of bonding for 120/208 volt or 120/240 volts circuits (other than service equipment).

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

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

### Methods of Bonding and Grounding (cont'd)



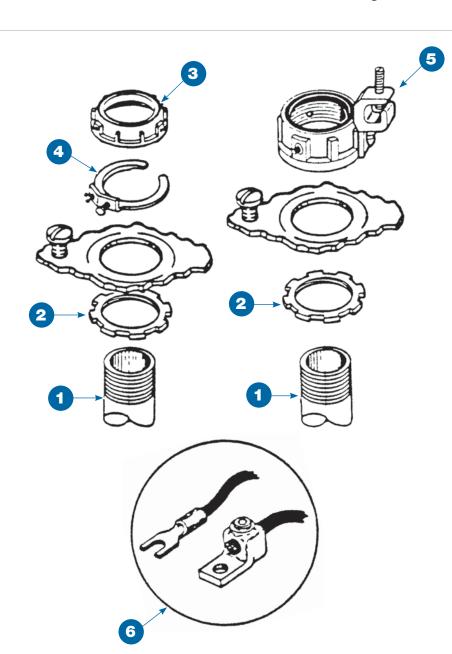
Case 3: (cont'd) Where threaded conduit terminates into a threadless opening in a sheet metal box or enclosure with no concentric or eccentric rings remaining around knockout.

- (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 222 Bushing Plastic
- (5) T&B Series 106 Bonding Locknut
- (6) T&B Series 3650 Bonding Wedge

### **Methods of Bonding**

- For (i) Over 250-volts circuit e.g. 347/600-volts systems and those operating over 600 volts
  - (ii) Service equipment
  - (iii) Hazardous locations where applicable

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.

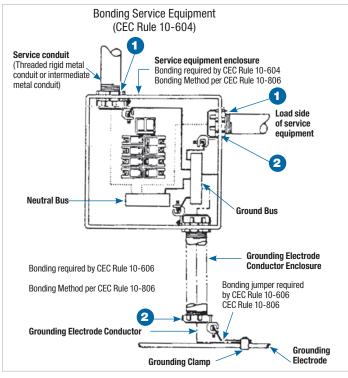
**Note:** Bonding jumper required by CEC Rule 10-614

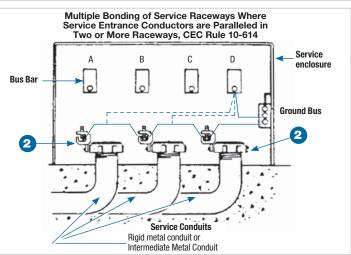
- (1) Threaded rigid metal conduit or intermediate metal conduit
- (2) T&B Series 142 Locknuts
- (3) T&B Series 122 Bushing, Metallic
- (4) T&B Series 3650 Bonding Wedge
- (5) T&B Series 3870 Bonding and Grounding Bushing
- (6) T&B Typical Mechanical or Pressure Type Fitting

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

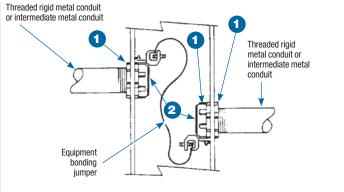


### Methods of Bonding and Grounding (cont'd)

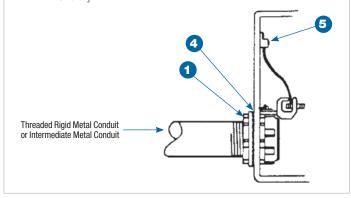




# Install Bonding Jumper to Assure Electrical Continuity Between Isolated Sections of Raceways (CEC Rule 10-614)



- (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)

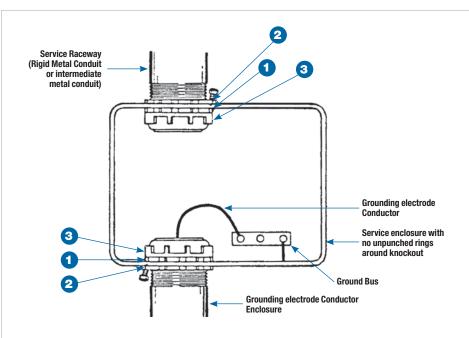
Where code requires bonding and grounding of single or multiple metal conduits, or positive bonding and grounding of metal conduit to the box, enclosure or auxiliary gutter, the end of the conduit shall be equipped with an insulated metallic grounding and bonding bushing such as Series 3870 manufactured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



### 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

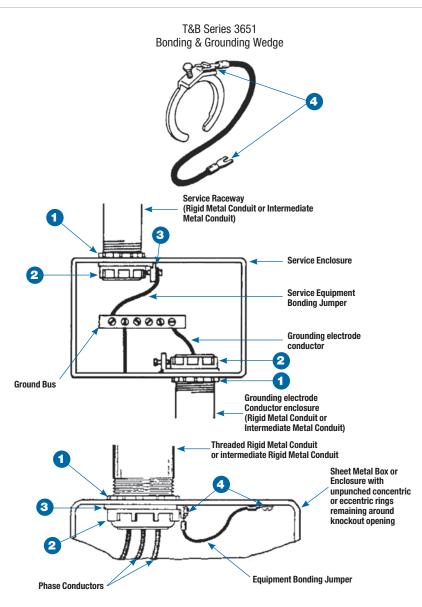
### **Suggested Specifications**

### **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.



### Methods of Bonding and Grounding (cont'd)



### **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.

- (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