

Unions, Sealing Fittings, Flexible Couplings, Elbows, Drain/Breather, Close-Up Plugs: Explosionproof

UNILETS® for Use with Threaded Metal Conduit

Applications: Unions

- UNY and UNF unions are used for joining conduit and connecting conduit to enclosures. Facilitates modifications, permits removal of enclosures without turning or removal of conduit.
- Expansion unions compensate for expansion and contraction of conduit.

Applications: Sealing Fittings

- Prevent passage of gases, vapors or flames from one portion of conduit system to another. Restrict any explosion to the sealed off enclosure. Prevent pressure piling within conduit system.
- Required in Class 1, Division 1 and 2 locations within 18" of enclosures containing apparatus that may cause arcs, sparks or high temperatures.
- Required in Class I, Division 1 and 2 locations where 2" or larger conduit enters enclosure, fitting housing terminals, splices or taps.
- Required in Class 1, Division 1 and 2 locations at the boundary where conduit leaves classified location.
- Required in Class 1, Division 1 and 2 locations where two or more enclosures are connected by 36" or less conduit. Seal must be located within 18" of either enclosure.
- Required where cables (which exceed rate of gas or vapor transmission permitted for seals) are used in Class 1, Division 2 locations.

Applications: Sealing Hubs

- Used to seal vertical conduit risers at switch gear and motor control centers, sheet metal structures, or cast boxes and enclosures.

Applications: Flexible Couplings

- Used in areas where vibration and/or movement is a problem. Also used in place of rigid conduit in difficult-bend situations.

Applications: Combination Drain/Breather

- ECBD, when installed in bottom of housing, functions as a drain for water formed by condensation within system. Installed in top of housing, it serves as a breather, providing ventilation to minimize condensation and prevent mildew formation.



① UNY/UNF Unions



② UNY/UNF Expansions Unions



③ EY, EYS, EYD Series Drain Seals



④ ES Series Sealing Hubs



⑤ EXGJH/EXLK Flexible Couplings



⑥ PLG Close-Up Plugs



⑦ BR Bell Reducer



⑧ EL Elbows



⑨ ECDB Drain/Breathers

Unions, Sealing Fittings, Flexible Couplings, Elbows, Drain/Breather, Close-Up Plugs: Explosionproof

UNILETS® for Use with Threaded Metal Conduit

Features: All Fittings

- Explosionproof, dust-ignitionproof.
- Smooth, rounded integral bushing in each hub protects conductor insulation.
- Accurately tapped, tapered threads for tight, rigid joints and ground continuity.

Features: Non-Expansion Unions

- ① Concentric ring interlocked design of 1/2", 3/4" and 1" sizes makes possible smaller diameter, allowing use in tighter spaces. 1-1/4" and larger UNY sizes have removable male nipple.
- Choice of malleable iron or aluminum.

Features: Expansion Unions

- ② One-piece design eliminates need for disassembly during installation.
- Telescoping cylinder within cylinder design permits expansion or contraction.
- Standard or long types available.
- Small external diameters—excellent in restricted areas in wiring of pumps, motors, and other equipment.
- Internal phosphor bronze "bonding jumper" ring assures positive ground between telescoping cylinders.

Features: Sealing Fittings

- ③ Raintight construction.
- Removable nipple in male sealing fitting may be used interchangeably in top or bottom hub.
- EYS—for sealing vertical conduit. Large opening for damming and filling.
- Expanded Fill EYSEF/EYDEF—allow up to 40% conduit fill in compliance with the National Electrical Code.
- EYSF/EYSM—for sealing vertical conduit. Large opening for damming and filling.
- ESUF/ESUM for sealing vertical or horizontal conduit. Pouring spout rotates 90° Removable cover provides full access for damming 2-1/2" thru 4" sizes have threaded cover openings for damming.
- EYF/EYM—close radius type for sealing vertical or horizontal conduit runs.
- EYDM Drain Sealing Fittings—close radius type for sealing vertical conduit runs. Access cover has drain valve for automatic draining of water accumulation above the seal.
- Kwiko® A sealing cement is a specially formulated water soluble powder. Mixed to the proper proportions, it is poured in sealing fittings and hardens to contain

and restrict the passage of gases and explosions in classified areas.

- Fiber Filler—makes dams around and between all conductors to prevent sealing compound from leaking while being poured in its liquid state.

Features: Sealing Hubs

- ④ UL Listed for use in hazardous locations when Kwiko® A Sealing Compound or Crouse-Hinds Chico® A Sealing Compound are used to make the seal.

Features: Flexible Couplings

- ⑤ Heavy duty design resists mechanical abuse. Watertight.
- Electrical conductivity equal to rigid conduit on a similar length basis—no bonding jumper required.
- Interior insulating liner protects conductors from abrasion under vibrating conditions.
- EXGJH—both end fittings are female, each furnished with a removable male nipple.
- EXLK—female end fitting with union at one end and a female end fitting with a removable male nipple at the other end.

Standard Materials

- UNY and UNF (Non-Expansion) Unions, 1/2" thru 1": steel or aluminum. 1-1/4" thru 6": malleable iron or aluminum.
- UNY and UNF Expansion Unions: steel.
- UNL Unions: malleable iron and steel.
- EYSF/EYSM, EYF/EYM and EYDM Seals: malleable iron or Almag 35 aluminum.
- EYS, EYSEF/EYDEF, and ESUF/ESUM: malleable iron.
- EYD and EYS Seals: Grayloy®-iron.
- EXGJH and EXLK Couplings, 1/2" thru 2": outer bronze braid, inner brass core with insulating liner; 2-1/2" thru 4": outer stainless steel braid, inner stainless steel core with insulating liner. End Fittings: 1/2" thru 2"—brass; 2-1/2" thru 4"—stainless steel.
- PLG Close-Up Plugs: malleable iron, steel, or aluminum.
- BR Reducers: malleable iron or aluminum.
- EL and UNA Elbows: malleable or cast iron.
- ECDB Combination Drain/Breather: stainless steel.

Standard Finishes

- Unions—UNY, UNF and UNL (Non-Expansion) and UNY and UNF (Expansion)

of malleable iron have triplecoat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat, of steel have zinc electroplate, of aluminum 1/2" thru 2" have natural finish and 2-1/2" thru 4" have epoxy powder coat.

- Sealing Fittings—EYSF/EYSM, ESUF/ESUM, EYF/EYM, EYDM and EYD/EYS of malleable iron and Grayloy®-iron have triple-coat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat, of Almag 35 aluminum have epoxy powder coat.

- Sealing Hubs—ES of malleable iron have a triple-coat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat.

- Flexible Couplings—EXGJH and EXLK natural finish.

- Close-up Plugs—PLG of malleable iron have a triple-coat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat; steel have zinc electroplate; aluminum have natural finish.

- Bell Reducers—BR of malleable iron have a triple-coat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat; aluminum have natural finish.

- Elbows—EL are malleable iron and have zinc electroplate; UNA are malleable iron and have a triple-coat—(1) zinc electroplate, (2) dichromate, and (3) epoxy powder coat.

- Combination Drain/Breathers—ECDB are passivated stainless steel and have a natural finish.

Options

- For ES Sealing Hubs, add suffix BLSG for sealing gaskets and locknuts (provide a water and oil-tight connection).

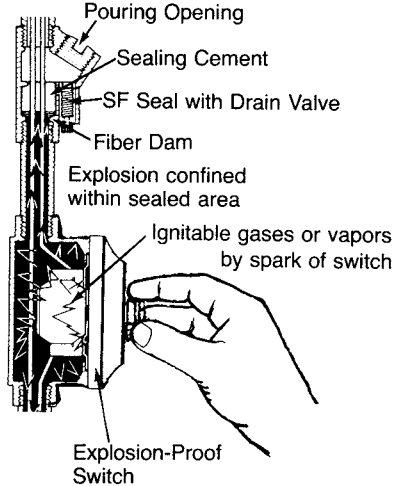
Compliances

- UL Standard 886
- Appleton malleable iron products conform to ASTM A47-77, Grade 32510. which has the following properties: tensile strength, 50,000 psi; yield, 32,000 psi; and elongation, 10%.
- Appleton aluminum products are produced from a high strength copper-free (4/10 or 1% max.) alloy.
- Class I, Div. 1 & 2 and Class II, Div. 1 & 2, if installed as follows: Unions, Elbows, Plugs, Flex. Couplings—NEC 501-4 (a)(b); Seals—NEC 501-5 (a)(b)(c)(d)(e) and NEC 502-5; Drains—NEC 501-5(f).

NEC Sec. 501-5 Highlights on Sealing Fitting Requirements

Class I, Div. 1 and 2.

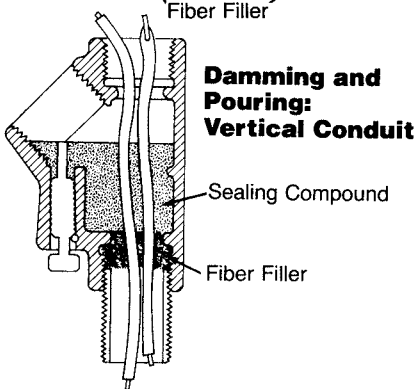
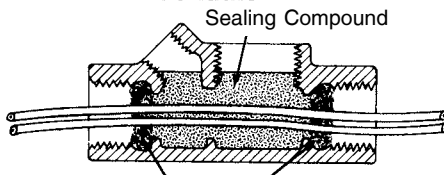
Sealing fittings prevent passage of gases, vapors or flames from one portion of a conduit system to another. They also restrict large amounts of ignitable gases or vapors from accumulating to confine explosive pressure.



Appleton sealing fittings are suitable for Class I and II locations.

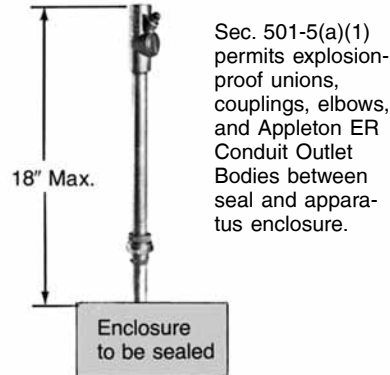
EYS, SF and EYD are for sealing vertical conduit. EY and ESU are for sealing vertical and horizontal conduit. SF and EYD also have drain valves.

Damming and Pouring: Horizontal Conduit



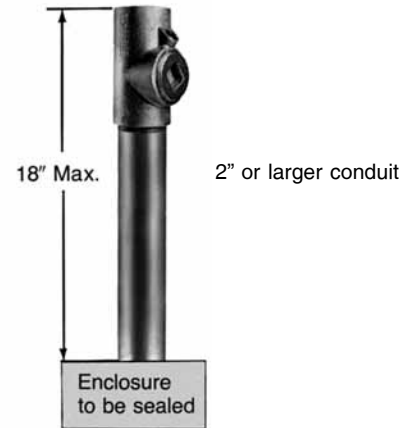
Class I, Div. 1 and 2

Seals must be placed in each conduit within 18" of a device that may produce arcs, sparks, or high temperatures.



Class I, Div. 1 and 2

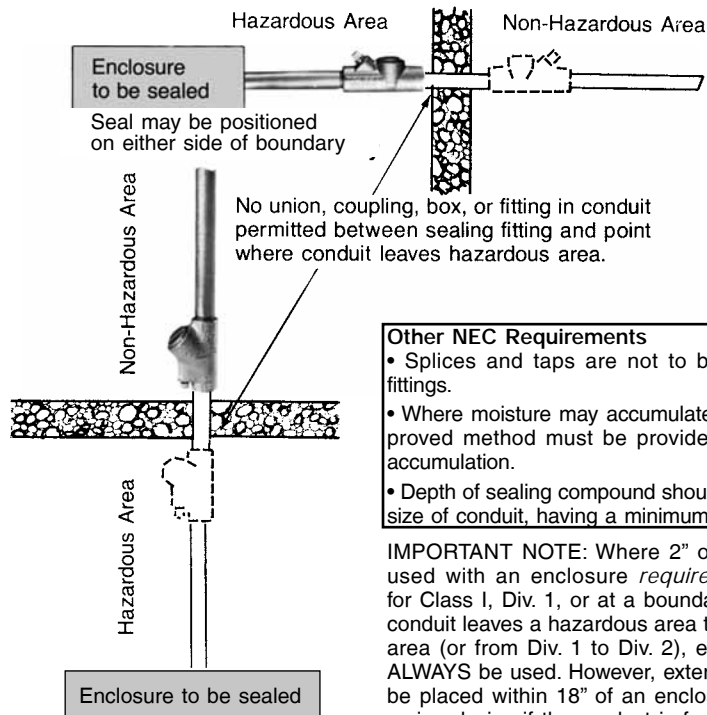
Where 2" or larger conduit enters enclosure, fitting housing terminals, splices or taps, seals are required within 18" or such enclosure.



Class I, Div. 1 and 2

Sealing fittings must be installed at boundary between a hazardous and non-hazardous area.*

* Sealing fitting must also be installed at boundary between a Class I, Div. 1 area and a Class I, Div. 2 area.



Other NEC Requirements

- Splices and taps are not to be used in sealing fittings.
- Where moisture may accumulate in system, an approved method must be provided to remove such accumulation.
- Depth of sealing compound should be equal to trade size of conduit, having a minimum thickness of 5/8".

IMPORTANT NOTE: Where 2" or larger conduit is used with an enclosure *required* to be approved for Class I, Div. 1, or at a boundary where any size conduit leaves a hazardous area to a non-hazardous area (or from Div. 1 to Div. 2), external seals must ALWAYS be used. However, external seals need not be placed within 18" of an enclosure containing an arcing device if the product is factory sealed for the specific Class and Group.

Class I, Div. 1 and 2
 Groups A,B*,C,D
 Class II, Div. 1 and 2
 Groups E,F,G
 Class III

Sealing Fittings: EYS and ESU; Explosionproof, Dust-Ignitionproof, Raintight

UNILETS® for use with Threaded Metal Conduit

Size (Inches)	Turning Radius† Inches	Turning Radius† (cm)	Kwiko® A Cement Req'd		Catalog Number	
			Ozs.	(Grams)	Malleable Iron*	Almag 35* Aluminum
EYS Vertical Conduit Seals (25% fill)‡						
Female						
1/2	1.81	(4.5)	2	(56.7)	EYSF-50♦	EYSF-50AL
3/4	2.25	(5.7)	3	(85.1)	EYSF-75♦	EYSF-75AL
1	2.38	(6.0)	5	(141.7)	EYSF-100♦	EYSF-100AL
1-1/4	2.94	(7.5)	11	(311.8)	EYSF-125	
1-1/2	3.50	(8.9)	19	(538.6)	EYSF-150	
2	4.13	(10.5)	31	(878.8)	EYSF-200	
2-1/2	4.75	(12.1)	46	(1304.1)	EYSF-250	
3	5.63	(14.3)	82	(2324.7)	EYSF-300	
4	6.50	(16.5)	92	(2608.2)	EYSF-400	
Male/Female (Removable Male Nipple)						
1/2	1.81	(4.5)	2	(56.7)	EYSM-50♦	EYSM-50AL
3/4	2.25	(5.7)	3	(85.1)	EYSM-75♦	EYSM-75AL
1	2.38	(6.0)	5	(141.7)	EYSM-100♦	EYSM-100AL
ESU Vertical and Horizontal Conduit Seals (25% fill)‡						
Female						
1/2	1.25	(3.2)	4	(113.4)	ESUF-50	
3/4	1.25	(3.2)	4	(113.4)	ESUF-75	
1	1.38	(3.5)	5	(141.7)	ESUF-100	
Male/Female (Removable Male Nipple)						
1/2	1.25	(3.2)	4	(113.4)	ESUM-50	
3/4	1.25	(3.2)	4	(113.4)	ESUM-75	
1	1.38	(3.5)	5	(141.7)	ESUM-100	



‡ Per Nec 501-5(c)(6) seals in Class I, Division 1 and 2 must be limited to conductor fill of 25% of cross sectional area of a rigid metal conduit of the same trade size unless approved for higher percentage fill. See 40% fill seals on page I-9.

♦ Indicated items in the shaded area which are suitable for Class I, Groups A,B,C and D; Class II, Groups E,F,G; and Class III.

* U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.







† Turning radius with cover or plug removed.

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Class I, Div. 1 and 2
Groups A, B, C, D
Class II, Div. 1 and 2
Groups E, F, G
Class III

Sealing Fittings for Close Turning Radius: EY; Explosionproof, Dust-Ignitionproof, Raintight

UNILETS® for use with Threaded Metal Conduit

Size Inches	Turning Radius† Inches (cm)	Kwiko® A Cement Req'd Ozs. (Grams)	Catalog Number		
			Malleable Iron*	Almag 35 Aluminum*	
EY Vertical and Horizontal Conduit Seals for Close Turning Radius (25% fill)**					
Female					
					
1/2—1"	1-1/4—3"	3-1/2—6"			
1/2	1.06 (2.7)	1 (28.4)	EYF-50‡	EYF-50AL‡	
3/4	1.19 (3.0)	2 (56.7)	EYF-75‡	EYF-75AL‡	
1	1.38 (3.5)	4 (113.4)	EYF-100‡	EYF-100AL‡	
1-1/4	1.75 (4.5)	7 (198.4)	EYF-125	EYF-125AL	
1-1/2	2.06 (5.2)	13 (368.5)	EYF-150	EYF-150AL	
2	2.31 (5.9)	22 (623.7)	EYF-200	EYF-200AL	
2-1/2	2.69 (6.8)	36 (1,020.6)	EYF-250	EYF-250AL	
3	3.13 (7.9)	61 (1,729.3)	EYF-300	EYF-300AL	
3-1/2	3.44 (8.7)	89 (2,523.1)	EYF-350	EYF-350AL	
4	3.69 (9.4)	114 (3,231.8)	EYF-400	EYF-400AL	
5	4.69 (11.9)	202 (5,726.6)	EYF-500‡	—	
6	5.38 (13.7)	230 (6,520.4)	EYF-600‡	—	
Male/Female (Removable Male Nipple)					
					
1/2—1"	1-1/4—3"	3-1/2—6"			
1/2	1.06 (2.7)	1 (28.4)	EYM-50‡	EYM-50AL‡	
3/4	1.19 (3.0)	2 (56.7)	EYM-75‡	EYM-75AL‡	
1	1.38 (3.5)	4 (113.4)	EYM-100‡	EYM-100AL‡	
1-1/4	1.75 (4.5)	7 (198.4)	EYM-125	EYM-125AL	
1-1/2	2.06 (5.2)	13 (368.5)	EYM-150	EYM-150AL	
2	2.31 (5.9)	22 (623.7)	EYM-200	EYM-200AL	
2-1/2	2.69 (6.8)	36 (1,020.6)	EYM-250	EYM-250AL	
3	3.13 (7.9)	61 (1,729.3)	EYM-300	EYM-300AL	
3-1/2	3.44 (8.7)	89 (2,523.1)	EYM-350	EYM-350AL	
4	3.69 (9.4)	114 (3,231.8)	EYM-400	EYM-400AL	
5	4.69 (11.9)	202 (5,726.6)	EYM-500‡	—	
6	5.38 (13.7)	230 (6,520.4)	EYM-600‡	—	

** Per Nec 501(c)(6), seals in Class I, Division 1 and 2 must be limited to conductor fill of 25% of cross sectional area of a rigid metal conduit of the same trade size unless approved for higher percentage fill. See 40% fill seals on page I-9.

Shaded area indicates items which are U.L. Listed for Class I, Groups B, C, and D; Class II, Groups E, F and G; and Class III.

‡ Indicates items which are U.L. Listed for Class I, Groups A, B, C, and D; Class II, Groups E, F and G; and Class III.







* U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.

† Turning radius with cover or plug removed.

‡ Not U.L. Listed. CSA Certified only.

Class I, Div. 1 and 2
 Groups A, B, C, D
 Class II, Div. 1 and 2
 Groups E, F, G
 Class III

Sealing Fittings for Close Turning Radius and 40% Fill: EY; Explosionproof, Dust-Ignitionproof, Raintight UNILETS® for use with Threaded Metal Conduit

Size (Inches)	Turning Radius† Inches	Turning Radius† (cm)	Kwiko® A		Catalog Number			
			Cement Req'd Ozs.	(Grams)	Malleable Iron*	Almag 35 Aluminum*		
EXPANDED FILL EYSEF and EYDEF (40% fill)								
EYSEF 1/2"-4" Vertical and Horizontal Conduit Seals for Close Turning Radius								
Female								
			1/2	1.25	(3.18)	2 (56.8)	EYSEF50‡	EYSEF50AL‡
			3/4	1.38	(3.51)	4 (113.5)	EYSEF75‡	EYSEF75AL‡
			1	1.75	(4.45)	7 (198.6)	EYSEF100	EYSEF100AL
			1-1/4	2.06	(5.23)	13 (368.9)	EYSEF125	EYSEF125AL
			1-1/2	2.31	(5.87)	22 (624.3)	EYSEF150	EYSEF150AL
			2	2.63	(6.68)	36 (1,021.5)	EYSEF200	EYSEF200AL
			2-1/2	3.00	(7.62)	61 (1,730.9)	EYSEF250	EYSEF250AL
			3	3.31	(8.41)	89 (2,525.4)	EYSEF300	EYSEF300AL
			3-1/2	3.59	(9.12)	114 (3,234.8)	EYSEF350	EYSEF350AL
			4	4.22	(10.72)	202 (5,726.6)	EYSEF400	EYSEF400AL
EYDEF 1/2"-4" Vertical Drain Seals for Close Turning Radius								
Female								
			1/2	1.91	(4.85)	4 (113.5)	EYDEF50	EYDEF50AL
			3/4	2.38	(6.05)	6 (170.3)	EYDEF75	EYDEF75AL
			1	1.75	(4.45)	7 (198.6)	EYDEF100	EYDEF100AL
			1-1/4	2.06	(5.23)	13 (368.9)	EYDEF125	EYDEF125AL
			1-1/2	2.31	(5.87)	22 (624.3)	EYDEF150	EYDEF150AL
			2	2.63	(6.68)	36 (1,021.5)	EYDEF200	EYDEF200AL
			2-1/2	3.00	(7.62)	61 (1,730.9)	EYDEF250	EYDEF250AL
			3	3.31	(8.41)	89 (2,525.4)	EYDEF300	EYDEF300AL
			3-1/2	3.59	(9.12)	114 (3,234.8)	EYDEF350	EYDEF350AL
			4	4.22	(10.72)	202 (5,726.6)	EYDEF400	EYDEF400AL

Shaded area indicates items which are U.L. Listed for Class I, Groups B,C, and D; Class II, Groups E,F and G; and Class III.

‡ Indicates items which are U.L. Listed for Class I, Groups A,B,C, and D; Class II, Groups E,F and G; and Class III.

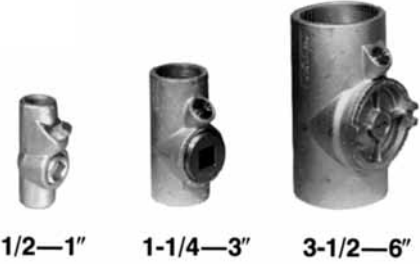


* U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.

† Turning radius with cover or plug removed.

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Class I, Div. 1 and 2
Groups A, B, C, D
Class II, Div. 1 and 2
Groups E, F, G
Class III

EYS Grayloy™ - Iron Sealing Fittings: Explosionproof, Dust-Ignitionproof, Raintight UNILETS® for use with Threaded Metal Conduit

	Size (Inches)	Turning Radius† Inches	(cm)	Kwiko® A Cement Req'd Ozs.	(Grams)	Catalog Number Grayloy™-Iron*
EYS Vertical and Horizontal Conduit Seals (25% fill)** for Close Turning Radius						
Female						
 <p>1/2—1" 1-1/4—3" 3-1/2—6"</p>	1/2	1.16	(2.9)	1	(28)	EYS-11 [‡] EYS-21 [‡] EYS-31 [‡]
	3/4	1.25	(3.2)	2	(57)	EYS-4 EYS-5 EYS-6
	1	1.38	(3.5)	4	(113)	EYS-7 EYS-8 EYS-9
	1-1/4	1.75	(4.4)	9	(255)	EYS-10 EYS-012 EYS-014
	1-1/2	2.06	(5.2)	12	(340)	
	2	2.31	(5.9)	21	(595)	
	2-1/2	2.69	(6.8)	37	(1,049)	
	3	3.13	(7.9)	61	(1,729)	
	3-1/2	3.44	(8.7)	80	(2,268)	
	4	3.69	(9.4)	112	(3,175)	
	5	4.69	(11.9)	198	(5,613)	
	6	5.38	(13.7)	230	(9,667)	
Male/Female (Removable Male Nipple)						
	1/2	1.16	(2.9)	1	(28)	EYS-116 [‡] EYS-216 [‡] EYS-316 [‡]
	3/4	1.25	(3.2)	2	(57)	EYS-46 EYS-56 EYS-66
	1	1.38	(3.5)	4	(113)	EYS-76 EYS-86 EYS-96
	1-1/4	1.75	(4.4)	9	(255)	EYS-106 EYS-0126 EYS-0146
	1-1/2	2.06	(5.2)	12	(340)	
	2	2.31	(5.9)	21	(595)	
	2-1/2	2.69	(6.8)	37	(1,049)	
	3	3.13	(7.9)	61	(1,729)	
	3-1/2	3.44	(8.7)	80	(2,268)	
	4	3.69	(9.4)	112	(3,175)	
	5	4.69	(11.9)	198	(5,613)	
	6	5.38	(13.7)	230	(9,667)	
EYS Grayloy™ - Iron Vertical Sealing Fittings (25% fill)**						
Female						
 <p>Female Male</p>	1/2	1.63	(4.14)	1	(28.4)	EYS-1 [‡] EYS-2 [‡] EYS-3 [‡]
	3/4	1.91	(4.85)	2	(56.8)	EYS-16 [‡] EYS-26 [‡] EYS-36 [‡]
	1	2.38	(6.05)	3	(85.1)	
Male/Female (Removable Male Nipple)						
	1/2	1.63	(4.14)	1	(28.4)	
	3/4	1.91	(4.85)	2	(56.8)	
	1	2.38	(6.05)	3	(85.1)	

‡ Shaded area indicates items which are U.L. Listed for Class I, Groups A, B, C, and D; Class II, Groups E, F and G; and Class III.

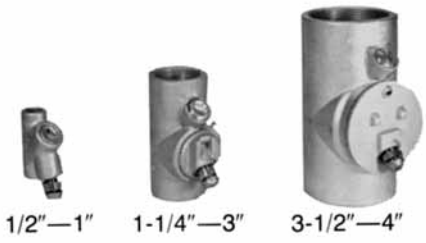

* U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.

† Turning radius with cover or plug removed.

** Per Nec 501(c)(6), seals in Class I, Division 1 and 2 must be limited to conductor fill of 25% of cross sectional area of a rigid metal conduit of the same trade size unless approved for higher percentage fill. See 40% fill seals on page I-9.

Class I, Div. 1 and 2
 Groups C,D
 Class II, Div. 1 and 2
 Groups E,F,G
 Class III

EYD Grayloy™ - Iron Drain Sealing Fittings: Explosionproof, Dust-Ignitionproof, Raintight UNILETS® for use with Threaded Metal Conduit

	Size (Inches)	Turning Radius† Inches	Turning Radius† (cm)	Kwiko® A Cement Req'd Ozs.	Kwiko® A Cement Req'd (Grams)	Catalog Number Grayloy™-Iron*
EYD Vertical Conduit Drain Seals for Close Turning Radius (25% fill)‡						
Female						
 <p>1/2" - 1" 1-1/4" - 3" 3-1/2" - 4"</p>	1/2	1.06	(2.7)	1	(28)	EYD-1
	3/4	1.19	(3.0)	2	(57)	EYD-2
	1	1.38	(3.5)	4	(113)	EYD-3
	1-1/4	1.75	(4.4)	9	(255)	EYD-4
	1-1/2	2.06	(5.2)	12	(340)	EYD-5
	2	2.31	(5.9)	21	(595)	EYD-6
	2-1/2	2.69	(6.8)	37	(1,049)	EYD-7
	3	3.13	(7.9)	61	(1,729)	EYD-8
	3-1/2	3.44	(8.7)	80	(2,268)	EYD-9
	4	3.69	(9.4)	112	(3,175)	EYD-10
Male/Female (Removable Male Nipple)						
 <p>1/2" - 1" 1-1/4" - 3" 3-1/2" - 4"</p>	1/2	1.06	(2.7)	1	(28)	EYD-16
	3/4	1.19	(3.0)	2	(57)	EYD-26
	1	1.38	(3.5)	4	(113)	EYD-36
	1-1/4	1.75	(4.4)	9	(255)	EYD-46
	1-1/2	2.06	(5.2)	12	(340)	EYD-56
	2	2.31	(5.9)	21	(595)	EYD-66
	2-1/2	2.69	(6.8)	37	(1,049)	EYD-76
	3	3.13	(7.9)	61	(1,729)	EYD-86
	3-1/2	3.44	(8.7)	80	(2,268)	EYD-96
	4	3.69	(9.4)	112	(3,175)	EYD-106

‡ Per Nec 501-5(c)(6) seals in Class I, Division 1 and 2 must be limited to conductor fill of 25% of cross sectional area of a rigid metal conduit of the same trade size unless approved for higher percentage fill. See 40% fill seals on page I-9.


* U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.

† Turning radius with cover or plug removed.

I-12

Class I, Div. 1 and 2
Groups B,C,D
Class II, Div. 1 and 2
Groups E,F,G
Class III

Drain Sealing Fittings: EYD; Explosionproof, Dust-Ignitionproof, Raintight UNILETS® for Use with Threaded Metal Conduit

	Size (Inches)	Turning Radius◆		Kwiko® A Cement Req'd		Catalog Number	
		Inches	(cm)	Ozs.	(Grams)	Malleable Iron†	Almag 35 Aluminum†
EYDM Vertical Conduit Drain Seals for Close Turning Radius (25% fill)‡							
Male/Female (Removable Male Nipple)							
 <p>1/2" — 1" 1-1/4" — 3" 3-1/2" — 4"</p>	1/2	1.94	(4.9)	2	(56.7)	EYDM-50	EYDM-50AL
	3/4	1.94	(4.9)	2	(56.7)	EYDM-75	EYDM-75AL
	1	2.06	(5.2)	3	(85.1)	EYDM-100	EYDM-100AL
	1-1/4	1.75	(4.5)	7	(198.4)	EYDM-125	EYDM-125AL
	1-1/2	2.06	(5.2)	13	(368.5)	EYDM-150	EYDM-150AL
	2	2.31	(5.9)	22	(623.7)	EYDM-200	EYDM-200AL
	2-1/2	2.69	(6.8)	36	(1,020.6)	EYDM-250	EYDM-250AL
	3	3.13	(7.9)	61	(1,729.3)	EYDM-300	EYDM-300AL
	3-1/2	3.44	(8.7)	89	(2,523.1)	EYDM-350	EYDM-350AL
	4	3.69	(9.4)	114	(3,231.8)	EYDM-400	EYDM-400AL

‡ Per Nec 501-5(c)(6) seals in Class I, Division 1 and 2 must be limited to conductor fill of 25% of cross sectional area of a rigid metal conduit of the same trade size unless approved for higher percentage fill. See 40% fill seals on page I-9.

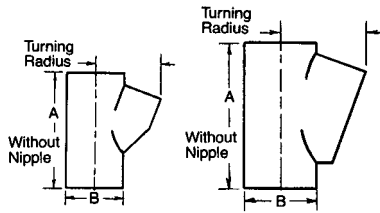
Shaded area indicates items which are UL Listed for Class I, Groups B,C and D; Class II, Groups E,F and G; and Class III.

† U.L. Listed for use with Appleton "Kwiko® A" and Crouse-Hinds "Chico® A" cement.

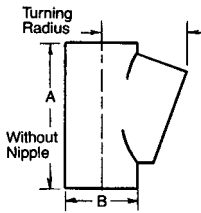
◆ Turning radius with cover or plug removed.

Dimensions: EYSF, EYSM, ESUF, ESUM, EYF, EYM, EYSEF, EYSEM, Sealing Fittings

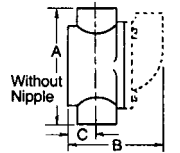
Size (In.)	Dimensions in Inches				Dimensions in Centimeters			
	A (Length)	B (Width)	C (Hub CL)	Turning Radius*	A (Length)	B (Width)	C (Hub CL)	Turning Radius*
EYSF 1/2" Thru 4" and EYSM 1/2" Thru 1"								
1/2	3.25	1.13		1.81	8.3	2.9		4.6
3/4	3.63	1.38		2.25	9.2	3.5		5.7
1	4.25	1.75		2.38	10.8	4.5		6.0
1-1/4	5.06	2.00		2.94	12.9	5.1		7.5
1-1/2	5.50	2.50		3.50	14.0	6.4		8.9
2	6.25	2.94		4.13	15.9	7.5		10.5
2-1/2	7.44	3.38		4.75	18.9	8.6		12.1
3	8.50	4.13		5.63	21.6	10.5		14.3
4	8.63	5.13		6.50	21.9	13.0		16.5
ESUF AND ESUM 1/2" Thru 1"								
1/2	3.00	2.94	.69	1.25	7.6	7.5	1.8	3.2
3/4	3.13	2.94	.69	1.25	7.9	7.5	1.8	3.2
1	3.38	3.25	.88	1.38	8.6	8.3	2.2	3.5
EYF AND EYM 1/2" Thru 6"								
1/2	3.50	1.19		1.06	8.9	3.0		2.7
3/4	3.50	1.38		1.19	8.9	3.5		3.0
1	4.25	1.75		1.38	10.8	4.5		3.5
1-1/4	4.94	2.00		1.75	12.5	5.1		4.5
1-1/2	5.50	2.38		2.06	14.0	6.0		5.2
2	6.13	2.88		2.31	15.6	7.3		5.9
2-1/2	7.50	3.38		2.69	19.1	8.6		6.8
3	8.13	4.13		3.13	20.6	10.5		7.9
3-1/2	8.94	4.75		3.44	22.7	12.1		8.7
4	9.38	5.13		3.69	23.8	13.0		9.4
5	10.81	6.25		4.69	27.5	15.9		11.9
6	11.81	7.31		5.38	30.0	18.6		13.7
EYSEF 1/2" Thru 4" and EYDEF 1" Thru 4"								
1/2	3.69	1.50		1.25	9.37	3.81		3.18
3/4	4.31	1.75		1.38	10.95	4.45		3.51
1	5.06	2.19		1.75	12.85	5.56		4.45
1-1/4	5.50	2.44		2.06	13.97	6.20		5.23
1-1/2	6.25	3.00		2.31	15.88	7.62		5.87
2	7.50	3.50		2.63	19.05	8.89		6.68
2-1/2	8.50	4.25		3.00	21.59	10.80		7.62
3	9.19	4.75		3.31	23.34	12.07		8.41
3-1/2	9.75	5.25		3.59	24.77	13.34		9.12
4	11.06	6.50		4.22	28.09	16.51		10.72
EYDEF 1/2" and 3/4"								
1/2	3.69	1.50		1.91	9.37	3.81		4.85
3/4	4.31	1.75		2.38	10.95	4.45		6.05



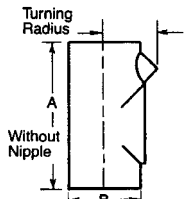
**EYSF/EYSM
1/2" thru 3"**



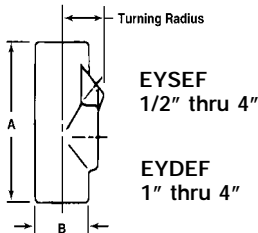
**EYSF/EYSM
4"**



**ESUF/ESUM
1/2" thru 1"**

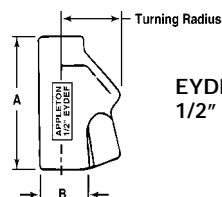


**EYF/EYM
1/2" thru 6"**



**EYSEF
1/2" thru 4"**

**EYDEF
1" thru 4"**

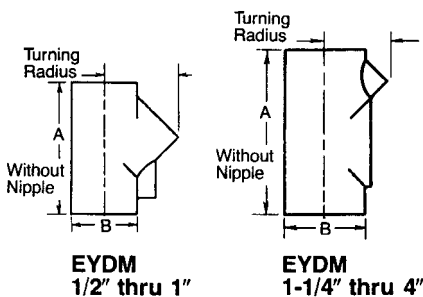
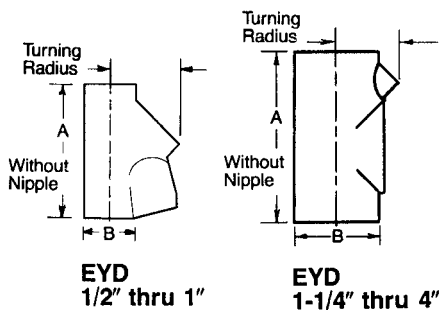
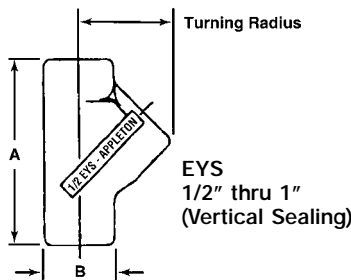
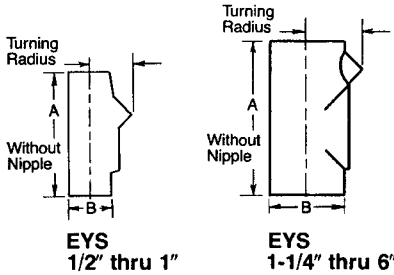


**EYDEF
1/2" and 3/4"**

* Turning radius with cover or plug removed.

Dimensions: EYS, EYD, EYDM Sealing Fittings

Size (In.)	Dimensions in Inches			Dimensions in Centimeters		
	A (Length)	B (Width)	Turning Radius*	A (Length)	B (Width)	Turning Radius*
EYS, Vertical and Horizontal Sealing, Close Turning Radius 1/2" Thru 6"						
1/2	3.69	1.25	1.16	9.4	3.2	2.9
3/4	3.69	1.50	1.25	9.4	3.8	3.2
1	4.31	1.75	1.38	11.0	4.4	3.5
1-1/4	5.06	2.19	1.75	12.9	5.6	4.4
1-1/2	5.50	2.44	2.06	14.0	6.2	5.2
2	6.25	3.00	2.31	15.9	7.6	5.9
2-1/2	7.50	3.50	2.63	19.1	8.9	6.7
3	8.50	4.25	3.31	21.6	10.8	8.4
3-1/2	9.19	4.75	3.41	23.4	12.1	8.7
4	9.75	5.25	3.69	24.8	13.3	9.4
5	11.06	6.50	4.59	28.1	16.5	11.7
6	12.13	7.63	5.34	30.8	19.4	13.6
EYS 1/2" Thru 1" (Grayloy®-Iron, Vertical Sealing)						
1/2	3.28	1.25	1.63	8.33	3.18	4.14
3/4	3.69	1.50	1.91	9.37	3.81	4.85
1	4.31	1.75	2.38	10.95	4.45	6.05
EYD 1/2" Thru 4"						
1/2	3.28	1.50	1.63	8.3	3.8	4.1
3/4	3.69	1.75	1.91	9.4	4.4	4.9
1	4.31	2.19	2.38	11.0	5.6	6.1
1-1/4	5.06	2.19	1.75	12.9	5.6	4.4
1-1/2	5.50	2.44	2.06	14.0	6.2	5.2
2	6.25	3.00	2.31	15.9	7.6	5.9
2-1/2	7.50	3.50	2.63	19.1	8.9	6.7
3	8.50	4.25	3.31	21.6	10.8	8.4
3-1/2	9.19	4.75	3.41	23.4	12.1	8.7
4	9.75	5.25	3.69	24.8	13.3	9.4
EYDM 1/2" Thru 4"						
1/2	3.63	1.38	1.94	9.2	3.5	4.9
3/4	3.63	1.38	1.94	9.2	3.5	4.9
1	4.06	1.56	2.06	10.3	4.0	5.2
1-1/4	4.94	2.00	1.75	12.5	5.1	4.5
1-1/2	5.50	2.38	2.06	14.0	6.0	5.2
2	6.13	2.88	2.31	15.6	7.3	5.9
2-1/2	7.50	3.38	2.69	19.1	8.6	6.8
3	8.13	4.13	3.13	20.6	10.5	7.9
3-1/2	8.94	4.75	3.44	22.7	12.1	8.7
4	9.38	5.13	3.69	23.8	13.0	9.4



* Turning radius with cover or plug removed.

Class I, Div. 1 and 2
 Groups A, B, C, D
 Class II, Div. 1 and 2
 Groups E, F, G
 Class III

Sealing Hubs: Explosionproof, Dust-Ignitionproof

Applications

- Sealing Hubs are used to seal vertical conduit risers at switch gear and motor control centers, sheet metal structures or cast boxes and enclosures.
- Can be used as a male thread enlarger or conduit hub in an ordinary location.

Standard Materials

- Malleable iron

Standard Finishes

- Appleton triplecoat finish
 - ① Zinc electroplate
 - ② Dichromate
 - ③ Epoxy powder coat

Options

- Available with sealing gaskets and locknuts – add suffix **BLSG** to catalog number.
- Sealing hubs, when used with sealing gaskets and locknuts, provide a water and oil-tight connection and are rated Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Group F and G.

Compliances

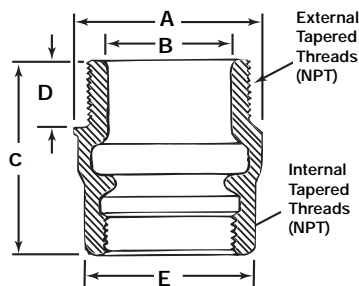
- UL Standard 886
- 25% fill



Standard Hub

Standard Hub
 with Locknut and
 Sealing Gasket Option

Catalog Number	Male Hub Size (Inches)	Female Hub Size (Inches)	Approx. Internal Vol. Cubic Inches	Kwiko® A Cement required Oz.	(Grams)
ES10050	1	1/2	.74	1	(25.2)
ES10075	1	3/4	.76	1	(25.9)
ES150100	1-1/2	1	3.10	4	(105.6)
ES200125	2	1-1/4	4.69	6	(159.7)
ES200150	2	1-1/2	4.69	6	(159.7)
ES250200	2-1/2	2	9.38	11	(319.4)
ES400300	4	3	33.70	40	(1,147.5)
ES500400	5	4	91.23	109	(3,106.4)
ES600500	6	5	143.73	172	(4,894.0)



*Fiber filler required, See page I-16.

Catalog Number	Dimensions (In Inches)				
	A	B	C	D	E
ES10050	1.63	0.88	2.00	13/16	(1.25)
ES10075	1.81	0.88	2.00	13/16	(1.50)
ES150100	2.25	1.38	2.75	13/16	(1.75)
ES200125	2.81	1.75	2.75	13/16	(2.19)
ES200150	2.81	1.75	2.75	13/16	(2.44)
ES250200	3.50	2.06	3.56	1-1/2	(3.00)
ES400300	5.25	3.63	4.75	1-3/4	(4.25)
ES500400	6.63	4.63	6.75	1-7/8	(5.25)
ES600500	7.63	5.75	7.25	1-15/16	(6.50)

◇ Indicates items in the shaded area which are UL Listed for Class I, Groups A,B,C,D; Class II, Groups E,F,G; and Class III.
 ◆ Indicates items in the shaded area which are UL Listed for Class I, Groups B,C,D; Class II, Groups E,F; and Class III.

Kwiko® A Sealing Cement and Filler

For use in Sealing Fittings. See listing pages for quantities required.



Quantity		Volume When Set		Catalog Number
Ounces	Grams	Cu. In.	Cu. Cm.	

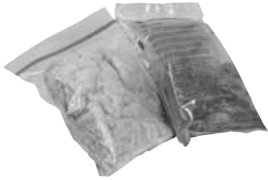
Kwiko® A Sealing Cement Mixing Ratio: 2 parts cement to 1 part water.

16.00	453.6	23.00	377.0	AC1-A
80.00	2268.0	115.00	1884.9	AC5-A

Kwiko® A TwinPak® Sealing Cements

Each plastic pouch contains: Pre-measured Kwiko® A cement and Pre-measured water (in an inner bag).

Squeeze pouch to break inner water bag and knead mixture thoroughly, then pour. Kwiko® A TwinPak® also includes adequate amount of fiber filler packed separately.



16.25 (Cement)	460.1	25.00	409.7	ACK6F-A*
1.00 (Fiber)	28.4			
36.25 (Cement)	1027.7	55.00	901.3	ACK12F-A**
2.00 (Fiber)	56.7			

* Product No. ACK6F-A includes 5- 3-1/4-ounce cement pouches. Larger quantities available, consult factory.

** Product No. ACK12F-A includes 5- 7-1/4-ounce cement pouches. Larger quantities available, consult factory.



Fiber Filler

Filler is used to make dams to prevent cement from leaking while in fluid state.

0.38	10.8		F038
0.75	21.3		F075
1.00	28.4		F01
2.00	56.7		F02
4.00	113.4		F04
8.00	226.8		F08
16.00	453.6		F1



Kwiko® A Sealing Cement and Fiber Filler Kits

16.00 (Cement)	453.6	23.00	377.0	AC1F01-A
1.00 (Fiber)	28.4			

Approximate amount of fiber filler required per hub (for 25% fill)†

Hub Size (inches)	Quantity		Hub Size (inches)	Quantity		Hub Size (inches)	Quantity	
	Ounces	Grams		Ounces	Grams		Ounces	Grams
1/2	0.03	0.9	1-1/2	.50	14.2	3-1/2	3.00	85.1
3/4	0.06	1.7	2	1.00	28.4	4	4.50	127.6
1	0.13	3.7	2-1/2	1.50	42.5	5	7.00	198.5
1-1/4	0.25	7.1	3	2.00	56.9	6	10.00	284.1

† For expanded fill sealing fittings (40% fill), double fiber filler required.