

Description	Page No.
<b>Application/Selection</b>	<b>182, 183</b>
<b>Breathers &amp; Drains</b>	
Standard	
ECD Series	195
CD Series (Non Hazardous)	196
<b>Universal</b>	
ECD Series	195
<b>Sealing Compound</b>	
Chico A	193
Chico SpeedSeal	193
<b>Sealing Fiber</b>	
Chico X	193
<b>Sealing Fittings Tool Kit</b>	
EYS TOOL KIT	194
<b>Seals</b>	
Drains	
EYD Series	186
EZD Series	187
EYDX Series	189
Elbows	
EYS	185
Horizontal/Vertical	
ES Series	191
EYS Series	184, 185
EYSX Series	188
Inspection	
EZD Series	187
Retrofit	
EYSR Series	190
Universal	
EYS Series	185
<b>Secondary Process Sealing Fitting</b>	<b>192</b>

## Application:

### Seals:

Seals are installed in conduit runs to prevent the passage of gases, vapors or flames from one portion of the electrical installation to another through the conduit, limiting any explosion to the enclosure and preventing precompression or "pressure piling."

- While not a National Electrical Code requirement, many engineers consider it good practice to sectionalize long conduit runs by inserting seals not more than 50' to 100' apart, depending on the conduit size, to minimize the effects of "pressure piling."

### Breathers:

- Breathers (vents), are installed in the top of enclosures to provide ventilation to minimize condensation in enclosures.

### Drains:

- Drains are used in humid atmospheres or in wet locations where it is likely that water can gain entrance to the interiors of enclosures or raceways. The raceways should be inclined so that water will not collect in enclosures or on seals, but will be led to low points where it may pass out through ECD drains.

- Frequently the arrangement of raceway runs makes this method impractical if not impossible. In such instances, EZD or EYD drain seal fittings should be used. These fittings prevent harmful accumulations of water above the seal.

## Considerations for Selection:

### Seals:

- Select the proper sealing fitting for the hazardous vapor involved; i.e., Class I, Division 1 & 2, Groups A, B, C or D.
- Select the appropriate seal for new or retrofit installations.
- Select a sealing fitting for the proper use in respect to mounting position. This is particularly critical when the conduit runs between hazardous and non-hazardous areas. Improper positioning of a seal may permit hazardous gases or vapors to enter the system beyond the seal and permit them to escape into another portion of the hazardous area or to enter a non-hazardous area. Some seals are designed to be mounted in any position; others are restricted to vertical mounting.

NOTE: The amount of *Chico*® fiber and compound required for any seal is determined by volume, hub size and mounting position of the seal.

### Drains:

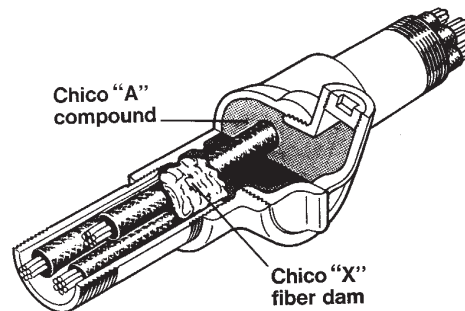
- in locations which are usually considered dry, surprising amounts of water frequently collect in conduit systems. No conduit system is airtight, therefore, it may "breathe". Alternate increases and decreases in temperature and/or in barometric pressure, due to weather changes or due to the nature of the process

carried on in the location where the conduit is installed, will cause "breathing," resulting in condensation and water accumulation.

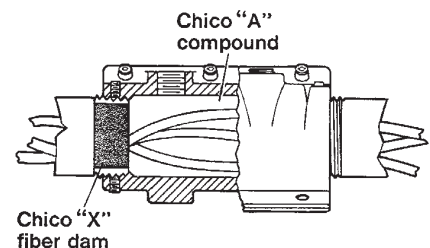
- In view of this likelihood, it is therefore good practice to insure against such water accumulations and probable subsequent insulation failures by installing breathers, drain seals, or inspection seals, even though conditions prevailing at the time of planning or installing do not indicate their need.

## Options:

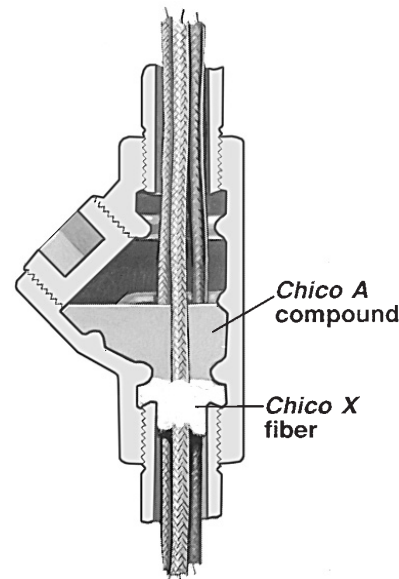
- *Corro-free*™ epoxy powder coat  
..... add suffix - S752



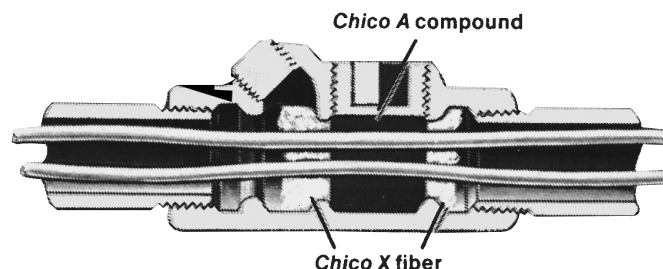
EZS Horizontal seal



EYSR Retrofit seal



EYS 1  
Vertical sealing



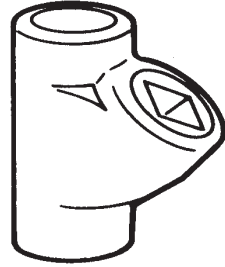
EYS Horizontal seal

# Condulet® Seals, Breathers and Drains

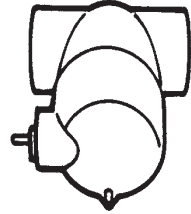
8F

## Shape Selector Chart Quick Selector Chart

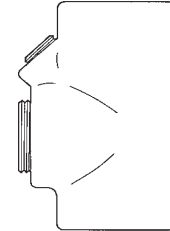
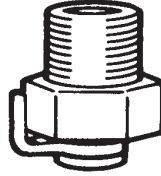
SERIES	PAGE	SERIES	PAGE	SERIES	PAGE	SERIES	PAGE	SERIES	PAGE
EYS	184	EZD	187	ECD Standard	195	ECD Universal	195	EYSX	188



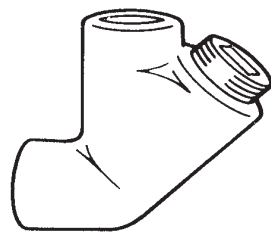
EYS  
Elbow Seal 185



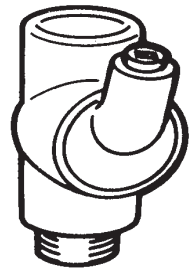
ES 191



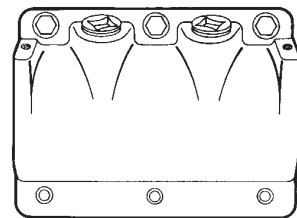
EYDX 189



EZS 185



EYSR 190



EYD 186



### Quick Selector Chart

Series	Description	NEC Hazardous Group	For Conduit Angle
EYS	Seal	Class I, Groups A,B,C,D Class II, Groups E,F,G	Vertical and Horizontal
EYS 29	Elbow Seal	Class I, Groups C,D Class II, Groups E,F,G	90° turn
EYSR	Retrofit Seal/Drain Seal*	Class I, Div. 2, Groups C,D Class II, Div. 2, Groups E,F,G Class III	Vertical and Horizontal
EYSX	Expanded Fill Sealing Fittings	Class I, Groups B,C,D Class II, Groups E,F,G	Vertical and Horizontal
EZS	Seal	Class I, Groups C,D Class II, Groups E,F,G	All
ES	Sealing Hub	Class I, Groups C,D	Vertical
EYD	Seal and Drain	Class I, Groups B,C,D Class II, Groups F,G	Vertical
EYDX	Expanded Fill Sealing Fittings and Drain	Class I, Groups B,C,D Class II, Groups F,G	Vertical
EZD	Inspection Seal and Drain – Inspection Seal only	Class I, Groups C,D Class II, Groups E,F,G	Vertical
ECD	Standard Breather only Drain only	Class I, Groups B,C,D Class II, Groups E,F,G Class III	
ECD	Universal Drain – Breather	Class I, Groups C,D Class II, Groups F,G	
CD	Non - Hazardous Drain	–	–

\* Drain purchased separately.

**Application:**

EYS and EZS sealing fittings:

- restrict the passage of gases, vapors or flames from one portion of the electrical installation to another at atmospheric pressure and normal ambient temperatures
- limit explosions to the sealed-off enclosure
- limit precompression or "pressure piling" in conduit systems

Sealing fittings are required:

- at each entrance to an enclosure housing an arcing or sparking device when used in Class I, Division 1 and 2 hazardous locations. To be located as close as practicable and, in no case, more than 18" from such enclosures
- at each conduit entrance of 2" size or larger to an enclosure or fitting housing terminals, splices or taps when used in Class I, Division 1 hazardous locations. To be located as close as practicable and, in no case, more than 18" from such enclosures
- in conduit systems when leaving Class I, Division 1 or Division 2 hazardous locations
- in cable systems when the cables either do not have a gas/vaportight continuous sheath or are capable of transmitting gases or vapors through the cable core when those cables leave the Class I, Division 1 or Division 2 hazardous locations

**Features:**

EYS and EZS sealing fittings include:

- minimum turning radius
- large openings with threaded closures to provide easy access to conduit hubs for making dams
- integral bushings in conduit hubs to protect conductor insulation from damage
- taper-tapped hubs to ensure ground continuity

EYS sealing fittings are available for installation in either vertical only or in both horizontal or vertical positions.

EZS sealing fittings for installation at any angle; the covers with opening for sealing compound can be properly positioned to accept the compound.

**Standard Materials:**

- Bodies – *Feraloy*® iron alloy and/or ductile iron
- Plugs – *Feraloy* iron alloy and/or steel
- Removable nipples – steel

**Standard Finishes:**

- *Feraloy* iron alloy and ductile iron – electrogalvanized and aluminum acrylic paint
- Steel – electrogalvanized

**Options:**

- Copper-free aluminum bodies, nipples and enclosures – add suffix - SA\*

**Size Ranges:**

- 1/2" – 6"

**Certifications and Compliances:**

NEC/CEC:

- **EYS1-3, 11-31, 16-36, 116-316**  
Class I, Division 1 & 2, Groups A,B,C,D  
Class II, Division 1, Groups E,F,G  
Class II, Division 2, Groups F,G  
Class III
- **EYS41-101, 416-1016**  
Class I, Division 1 & 2, Groups B,C,D  
Class II, Division 1, Groups E,F,G  
Class II, Division 2, Groups F,G  
Class III
- **EYS29, 4-014, 46-0146**  
**EZS1-8, 16-86**  
Class I, Division 1 & 2, Groups C,D  
Class II, Division 1, Groups F,G  
Class II, Division 2, Groups F,G  
Class III

- UL Standard: 886
- CSA Standard: C22.2

**Dimensions****EYS 16 Series**

Size	a	b	Turning Radius
1/2	3 <sup>9</sup> / <sub>32</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>
3/4	3 <sup>12</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>29</sup> / <sub>32</sub>
1	4 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>8</sub>

**EYS 46 Series**

1 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	1 <sup>23</sup> / <sub>32</sub>
1 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>
2	6 <sup>1</sup> / <sub>4</sub>	3	2 <sup>5</sup> / <sub>16</sub>
2 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>11</sup> / <sub>16</sub>
3	8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>16</sub>
3 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>16</sub> ‡
4	9 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	3 <sup>11</sup> / <sub>16</sub> ‡
5	11 <sup>1</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	4 <sup>19</sup> / <sub>32</sub> ‡
6	12 <sup>1</sup> / <sub>8</sub>	7 <sup>5</sup> / <sub>8</sub>	5 <sup>11</sup> / <sub>32</sub> ‡

Vertical female



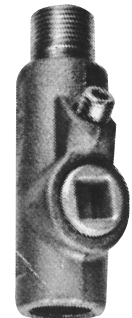
Vertical male &amp; female



Vertical or horizontal female



Vertical or horizontal male &amp; female

**EYS****For Sealing in Vertical Positions Only**

Hub Size	Female Hub Cat. #	Male & Female Hub Cat. #	Approximate Internal Volume in Cubic Inches
1/2	EYS1*	EYS16*	1
3/4	EYS2*	EYS26*	2
1	EYS3*	EYS36*	3 <sup>3</sup> / <sub>4</sub>

**For Sealing in Vertical or Horizontal Positions**

Hub Size	Female Hub Cat. #	Male & Female Hub Cat. #	Approximate Internal Volume in Cubic Inches	
			Vertical	Horizontal
1/2	EYS11*	EYS116*	1	1
3/4	EYS21*	EYS216*	2	2
1	EYS31*	EYS316*	3	3 <sup>3</sup> / <sub>4</sub>
1 <sup>1</sup> / <sub>4</sub>	EYS41	EYS416	6	8
1 <sup>1</sup> / <sub>2</sub>	EYS51	EYS516	10 <sup>3</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>
2	EYS61	EYS616	19	22 <sup>3</sup> / <sub>4</sub>
2 <sup>1</sup> / <sub>2</sub>	EYS71	EYS716	25 <sup>1</sup> / <sub>2</sub>	30
3	EYS81	EYS816	56	64 <sup>1</sup> / <sub>2</sub>
3 <sup>1</sup> / <sub>2</sub>	EYS91	EYS916	72	82
4	EYS101	EYS1016	95	110

**NOTE:** Sealing fittings are approved for use in hazardous locations only when *Chico*® Xfiber and *Chico A* sealing compound or Chico SpeedSeal are used to make the seal.

**EYS 116 Series**

a	b	Turning Radius
3 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>
3 <sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>
4 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>8</sub>
5 <sup>1</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	1 <sup>23</sup> / <sub>32</sub>
5 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>
6 <sup>1</sup> / <sub>4</sub>	3	2 <sup>5</sup> / <sub>16</sub>
7 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	2 <sup>11</sup> / <sub>16</sub>
8 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>16</sub>
9 <sup>3</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>4</sub>	3 <sup>7</sup> / <sub>16</sub> ‡
9 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	3 <sup>11</sup> / <sub>16</sub> ‡

\* Available in copper-free aluminum – to order, add suffix SA to Cat. No.

‡ With cover removed.

# Condulet® Sealing Fittings

Chico Sealing Compound and  
Fiber Page 193

Cl. I, Div. 1 & 2, Groups C,D  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III

Explosionproof  
Dust-Ignitionproof

8F

Seals, Breathers  
& Drains

Vertical or  
horizontal  
male & female



## EYS

For Sealing in Vertical or  
Horizontal Positions

Hub Size	Female Hub Cat. #	Male & Female Hub Cat. #	Approximate Internal Volume in Cubic Inches*	
			Verti- cal	Hori- zontal
1 1/4	EYS4*	EYS46*	6	8
1 1/2	EYS5*	EYS56*	10 3/4	12 1/4
2	EYS6*	EYS66*	19	22 3/4
2 1/2	EYS7*	EYS76*	25 1/2	30
3	EYS8*	EYS86*	56	64 1/2
3 1/2	EYS9*	EYS96*	72	82
4	EYS10*	EYS106*	95	110
5	EYS012	EYS0126	200	222
6	EYS014	EYS0146	290	315

Elbow seal



## EYS

Elbow Seal - For Sealing  
in Vertical Positions

Hub Size	Cat. #	Approximate Internal Volume in Cubic Inches
3/4	EYS29	1 3/4

Male & Female hub



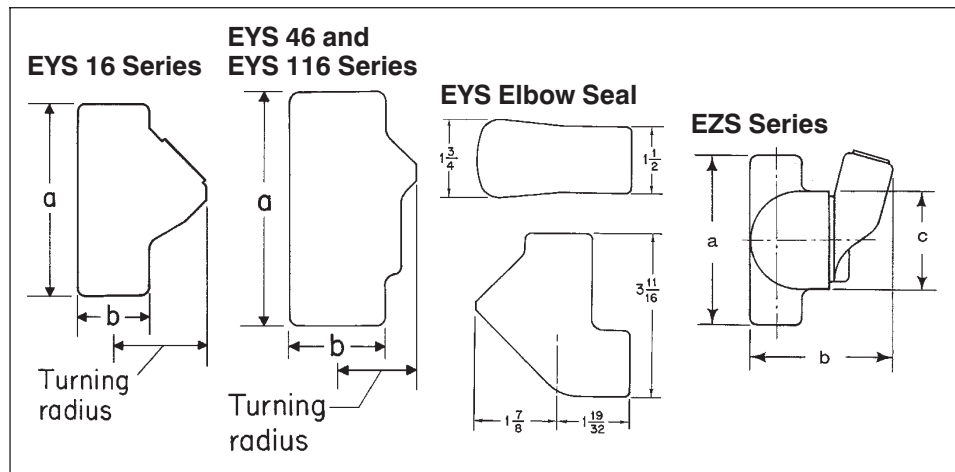
## EZS

For Sealing  
at Any Angle

Hub Size	Female Hub Cat. #	Male & Female Hub Cat. #	Approximate Internal Volume in Cubic Inches	
			Verti- cal	Hori- zontal
1/2	EZS1	EZS16	6 1/4	6 1/4
3/4	EZS2	EZS26	6 1/2	6 1/2
1	EZS3	EZS36	10 1/4	10 1/4
1 1/4	EZS4	EZS46	12 1/2	12 1/2
1 1/2	EZS5	EZS56	14 1/2	14 1/2
2	EZS6	EZS66	46	46
2 1/2	EZS7	EZS76	55	55
3	EZS8	EZS86	90	90

\* Available in copper-free aluminum – to order, add suffix SA to Cat. No.

## Dimensions



## EYS Elbow Seal

Size	a	b	Turning Radius (Vertical)
3/4	3 11/16	1 3/4	1 7/8

## EZS Series

Size	a	b	c	Turning Radius†
1/2	4 3/16	3 5/8	2 1/2	1 7/8
3/4	4 3/16	3 5/8	2 1/2	1 7/8
1	4 15/16	3 31/32	3	2 1/8
1 1/4	5 1/16	4 13/32	3	2 5/16
1 1/2	5 3/16	4 9/16	3 1/4	2 11/32
2	7 1/16	5 13/32	5 3/16	3 9/32
2 1/2	7 15/16	5 27/32	5 3/16	3 3/8
3	8 5/8	6 1/2	5 7/8	3 7/8

† With cover removed.



### Application:

EYD drain and EZD drain and inspection sealing fittings:

- restrict the passage of gases, vapors or flames from one portion of the electrical installation to another at atmospheric pressure and normal ambient temperatures
- limit explosions to the sealed-off enclosure
- prevent precompression or "pressure piling" in conduit systems

Drain sealing fittings are installed in vertical conduit runs and at low points in conduit systems to prevent accumulation of condensate above seal.

These sealing fittings are required as described on page 184.

### Features:

EYD and EZD drain sealing fittings include:

- drain to provide continuous, automatic drainage of condensate
- large openings with threaded closures to provide easy access to conduit hubs for making dams
- integral bushings to protect conductor insulation from damage
- taper-tapped hubs to ensure ground continuity

EZD drain and inspection sealing fittings also include:

- removable covers for periodic inspection of seals
- barrier for sealing compound easily installed after dams are made and before compound is poured.

### Standard Materials:

- Bodies, and inspection or drain covers – *Feraloy*® iron alloy and/or ductile iron
- Closure for drain – copper-free aluminum or ductile iron
- Small closure plug – *Feraloy* iron alloy and/or steel
- Drain – stainless steel
- Removable nipples – steel

### Standard Finishes:

- *Feraloy* iron alloy and ductile iron – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Stainless steel – natural
- Steel – electrogalvanized

### Options:

- Copper-free aluminum bodies, nipples and enclosures – add suffix - SA\*

### Size Ranges:

- EYD – ½" – 4"
- EZD – ½" – 2"

### Certifications and Compliances:

NEC/CEC:

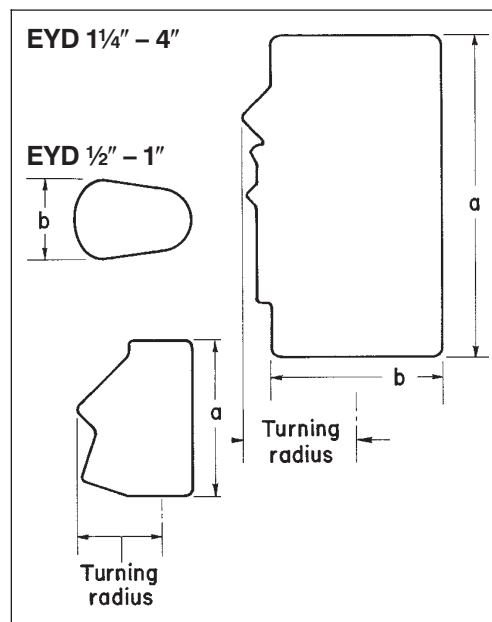
- **EYD11-101, 116-1016**  
Class I, Division 1 & 2, Groups B,C,D  
Class II, Division 1, Groups E,F,G  
Class II, Division 2, Groups F,G  
Class III
- **EYD1-10, 16-106**  
**EZD10-60, 111-611**  
Class I, Division 1 & 2, Groups C,D  
Class II, Division 1, Groups F,G  
Class II, Division 2, Groups F,G  
Class III
- UL Standard: 886
- CSA Standard: C22.2

**NOTE:** Sealing Fittings are approved for use in hazardous locations only when *Chico*® X fiber and *Chico A* sealing compound or *Chico SpeedSeal* are used to make the seal.

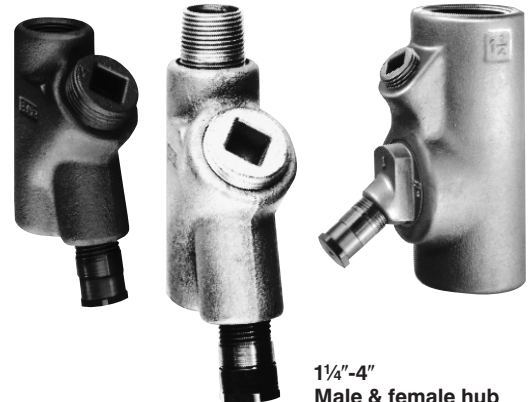
### EYD Drain Seal

Hub Size	Female Hub Cat. #	Male & Female Hub Cat. #	Female Hub Cat. #	Male & Female Hub Cat. #	Approximate Internal Volume in Cubic Inches
½	EYD1*	EYD16*	EYD11	EYD116	1
¾	EYD2*	EYD26*	EYD21	EYD216	2
1	EYD3*	EYD36*	EYD31	EYD316	3¾
1¼	EYD4*	EYD46*	EYD41	EYD416	8
1½	EYD5*	EYD56*	EYD51	EYD516	10¾
2	EYD6*	EYD66*	EYD61	EYD616	20
2½	EYD7*	EYD76*	EYD71	EYD716	35
3	EYD8*	EYD86*	EYD81	EYD816	57
3½	EYD9*	EYD96*	EYD91	EYD916	75
4	EYD10*	EYD106*	EYD101	EYD1016	105

### Dimensions



½"-1" Female hub      ½"-1" Male & female hub      1¼"-4" Female hub



1¼"-4" Male & female hub



### EYD Drain Seal

Size	a	b	Turning Radius
½	3⅞	1½	1⅝
¾	3⅞	1¾	1⅞
1	4⅞	2⅞	2⅞
1¼	5⅞	2⅞	1⅞
1½	5⅞	2⅞	2⅞
2	6⅞	3	2⅞
2½	7⅞	3½	2⅞
3	8⅞	4¼	3⅞
3½	9⅞	4¾	3⅞
4	9¾	5¼	3⅞

§ See Certifications and Compliances for classification of each product.

† With cover removed.

\* Available in copper-free aluminum – to order, add suffix SA to Cat. No.

# Condulet® Sealing Fittings with Drain and Inspection Cover

Chico Sealing Compound and Fiber  
Page 193

Cl. I, Div. 1 & 2, Groups C,D  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III

Explosionproof  
Dust-Ignitionproof

**8F**

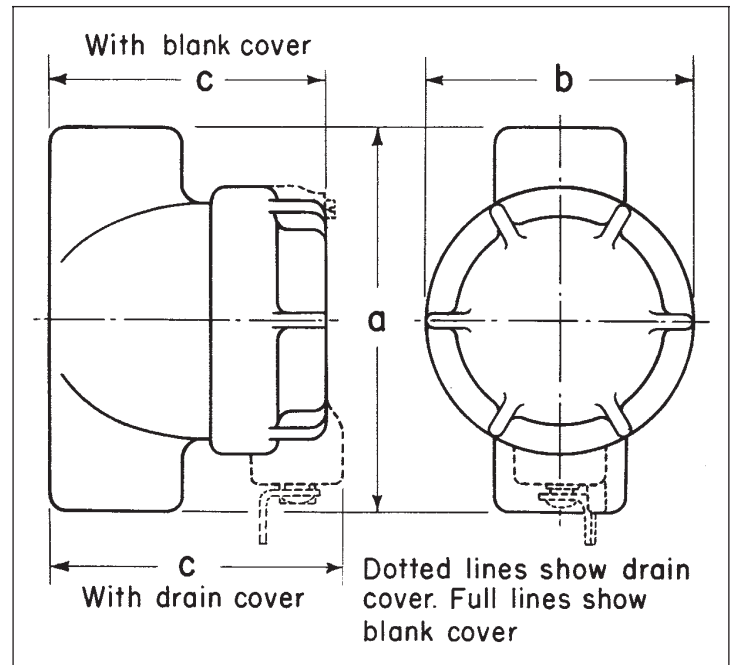
Seals, Breathers  
& Drains



## ESD With Drain Cover

Hub Size	Cat. #	Approximate Internal Volume in Cubic Inches
1/2	ESD111	5
3/4	ESD211	6
1	ESD311	10
1 1/4	ESD411	11
1 1/2	ESD511	13
2	ESD611	40

## Dimensions



## ESD Drain and Inspection Seals

Size	a	b	Drain Cover c	Turning Radius†
1/2	4 3/16	3	3 3/8	2 1/16
3/4	4 3/16	3	3 5/8	2 3/16
1	4 15/16	3 1/2	3 7/8	2 7/16
1 1/2	4 15/16	3 1/2	4 9/16	2 5/8
1 1/2	5 3/16	3 1/2	4 9/16	2 11/16
2	7 1/8	5 9/16	5 1/4	3 11/16

† With Cover removed.

**Application:**

EYSX Expanded Fill Sealing Fittings:

- restrict the passage of gases, vapors or flames from one portion of the electrical installation to another at atmospheric pressure and normal ambient temperatures
- limit explosions to the sealed-off enclosure
- limit precompression or "pressure piling" in conduit systems
- provide 40% wire fill capacity to allow uninterrupted runs in a conduit system

Sealing fittings are required:

- at each entrance to an enclosure housing an arcing or sparking device when used in Class I, Division 1 and 2 hazardous locations. To be located as close as practicable and, in no case, more than 18" from such enclosures
- at each entrance of 2" size or larger to an enclosure or fitting housing terminals, splices or taps when used in Class I, Division 1 hazardous locations. To be located as close as practicable and, in no case, more than 18" from such enclosures
- in conduit systems when leaving Class I, Division 1 or 2 hazardous locations
- in cable systems when the cables either do not have a gas/vaportight continuous sheath or are capable of transmitting gases or vapors through the cable core when those cables leave the Class I, Division 1 or 2 hazardous locations

**Features:**

EYSX Expanded Fill Sealing Fittings provide:

- a 40% wire fill capacity for expanded fill sealing
- large openings with threaded closures to provide easy access to conduit hubs for making dams
- integral bushings in conduit hubs to protect conductor insulation from damage
- taper-tapped hubs to ensure ground continuity
- minimum turning radius

EYSX Expanded Fill Sealing Fittings are available for installation in both horizontal or vertical positions.

**Standard Materials:**

- Bodies – *Feraloy*® iron alloy and/or ductile iron or copper-free aluminum (SA Suffix)
- Closures – *Feraloy* iron alloy and/or steel or copper-free aluminum (SA Suffix)

**Standard Finishes:**

- *Feraloy* iron alloy and ductile iron – electrogalvanized and aluminum acrylic paint
- Steel – electrogalvanized
- Copper-free aluminum – natural

**Options:**

- Copper-free aluminum bodies and enclosures - ..... add suffix SA

**Size Ranges:**

- ½" – 4"

**Certifications and  
Compliances:**

NEC/CEC:

**EYSX11 – EYSX81**

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

**EYSX9, EYSX10, EYSX1 SA – EYSX10 SA**

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

- UL Standard: 886

- CSA Standard: C22.2 No. 30

**EYSX Expanded Fill Sealing  
Fittings****For Sealing in Vertical or Horizontal  
Positions**

Hub Size	Female Hub Cat. #	Internal Volume in Cubic Inches	
		Vertical	Horizontal
½	EYSX11*	2	2
½	EYSX1 SA	2	2
¾	EYSX21*	3	3¾
¾	EYSX2 SA	3	3¾
1	EYSX31	6	8
1	EYSX3 SA	6	8
1¼	EYSX41	19	22¾
1¼	EYSX4 SA	19	22¾
1½	EYSX51	19	22¾
1½	EYSX5 SA	19	22¾
2	EYSX61	56	64½
2	EYSX6 SA	56	64½
2½	EYSX71	72	82
2½	EYSX7 SA	72	82
3	EYSX81	95	110
3	EYSX8 SA	95	110
3½	EYSX9*	200	222
3½	EYSX9 SA	200	222
4	EYSX10*	200	222
4	EYSX10 SA	200	222

Vertical or  
horizontal  
female

**NOTE:** Sealing fittings are approved for use in hazardous locations only when *Chico*® X fiber and *Chico* A sealing compound or Chico SpeedSeal are used to make the seal.

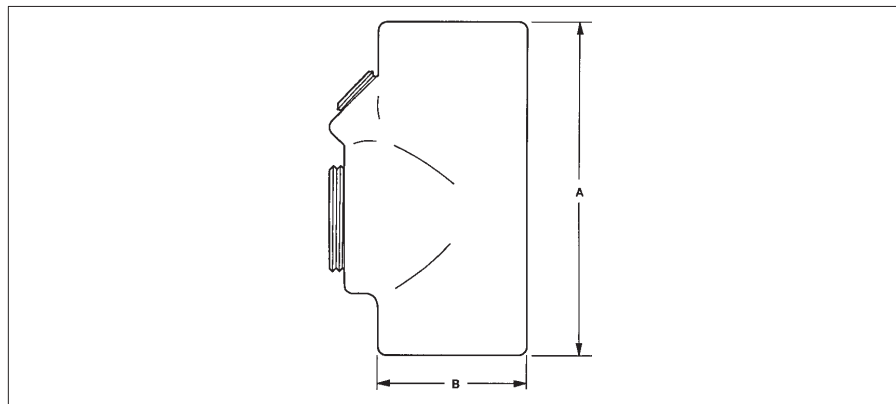
NPT Size	A	B	Turning Radius
½	3 1/16	1 1/2	1 1/4
¾	4 5/16	1 3/4	1 3/8
1	5 1/16	2 3/16	1 23/32
1¼	6 1/4	3	2 5/16
1½	6 1/4	3	2 5/16
2	8 1/2	4 1/4	3 5/16
2½	9 3/16	4 3/4	3 1/16 ‡
3	9 3/4	5 1/4	3 11/16 ‡
3½	11 1/16	6 1/2	4 19/32 ‡
4	11 1/16	6 1/2	4 19/32 ‡

‡ With plug cover removed.

♦ See Certifications and Compliances for classification of each product.

\* *Feraloy*®

‡ With cover removed.

**Dimensions**



# EYDX Expanded Fill Sealing Fittings With Drains

Chico Sealing Compound and Fiber  
Page 193

Cl. I, Div. 1 & 2, Groups B,C,D§  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III

Explosionproof  
Dust-Ignitionproof

8F

8F Seals, Breathers & Drains

## Application:

EYDX Expanded Fill Sealing Fittings with drains:

- restrict the passage of gases, vapors or flames from one portion of the electrical installation to another at atmospheric pressure and normal ambient temperatures
- limit explosions to the sealed-off enclosure
- prevent precompression or "pressure piling" in conduit systems
- provide 40% wire fill capacity to allow uninterrupted runs in a conduit system

Drain sealing fittings are installed in vertical conduit runs and at low points in conduit systems to prevent accumulation of condensate above seal.

These sealing fittings are required as described on page 184.

## Features:

EYDX Expanded Fill drain sealing fittings provide:

- a 40% wire fill capacity for expanded fill sealing
- drain to provide continuous, automatic drainage of condensate
- large openings with threaded closures to provide easy access to conduit hubs for making dams
- integral bushings to protect conductor insulation from damage
- taper-tapped hubs to ensure ground continuity

## Standard Materials:

- Bodies and drain covers – *Feraloy*® iron alloy, and ductile iron or copper-free aluminum (SA Suffix)
- Closure for drain – copper-free aluminum or malleable iron
- Small closure plug – *Feraloy* iron alloy and/or steel or copper-free aluminum (SA Suffix)
- Drain – stainless steel

## Standard Finishes:

- *Feraloy* iron alloy and ductile iron – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Stainless steel – natural
- Steel – electrogalvanized

## Options:

- Copper-free aluminum bodies and closures - add suffix - SA

## Size Ranges:

- EYDX – ½" – 3"

## Certifications and Compliances:

NEC/CEC:

### EYDX11 – EYDX81

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

### EYDX1 SA – EYDX8 SA

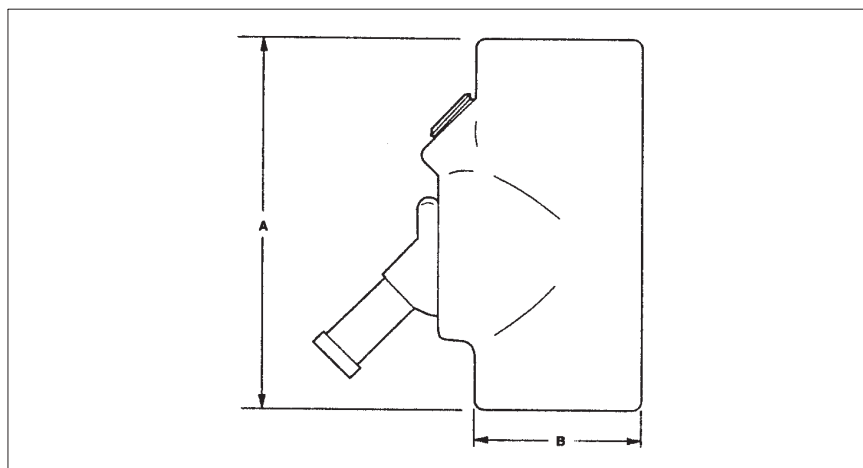
Class I, Division 1 and 2, Groups C,D  
Class II, Division 1, Groups F,G  
Class II, Division 2, Groups F,G  
Class III

- UL Standard: 886

- CSA Standard: C22.2 No. 30

**NOTE:** Sealing Fittings are approved for use in hazardous locations only when *Chico*® X fiber and *Chico A* sealing compound or Chico SpeedSeal are used to make the seal.

## Dimensions:



EYDX NPT Size	A	B	Turning Radius
½	3 11/16	1 ¾	1 29/32
¾	4 5/16	2 3/16	2 3/8
1	5 1/16	2 3/16	1 27/32†
1 ¼	6 ¼	3	2 5/16†
1 ½	6 ¼	3	2 5/16†
2	8 ½	4 ¼	3 3/16†
2 ½	9 3/16	4 ¾	3 7/16†
3	9 ¾	5 ¼	3 ½†

## EYDX Expanded Fill Sealing Fittings

Hub Size	Female Hub Cat. #	Internal Volume in Cubic Inches
½	EYDX11*	2
½	EYDX1 SA	2
¾	EYDX21*	3 ¾
¾	EYDX2 SA	3 ¾
1	EYDX31	8
1	EYDX3 SA	8
1 ¼	EYDX41	20
1 ¼	EYDX4 SA	20
1 ½	EYDX51	20
1 ½	EYDX5 SA	20
2	EYDX61	57
2	EYDX6 SA	57
2 ½	EYDX71	75
2 ½	EYDX7 SA	75
3	EYDX81	105
3	EYDX8 SA	105

§ See Certifications and Compliances for classification of each product.

† With drain cover removed.

\* *Feraloy*®

**Application:****Application:**

EYSR retrofit sealing fittings are installed:

- in rigid metal conduit systems in Class I, Division 2 hazardous locations
- to replace installed Cooper Crouse-Hinds type EYS or EYD sealing fittings
- without disassembly of the conduit system
- in vertical or horizontal positions, indoors or outdoors
- to restrict the passage of gases, vapors, or flames from one portion of the electrical system to another at atmospheric pressures and normal ambient temperatures
- to limit explosions to the sealed-off enclosure
- to limit precompression or "pressure piling" in the conduit system
- to prevent accumulation of water in the conduit system when installed with an ECD15 drain

**Features:**

- Seal may be installed in the existing conduit run without disassembly of the conduit system saving time and labor
- Overall length and spacing requirements do not exceed those of standard EYS seals; permits close nesting of seals
- Pipe plugs permit the installation of a standard ECD 15 drain fitting (order separately) for use in vertical conduit runs to drain any water that might accumulate in the conduit system
- Steel set screws provide grounding continuity
- Suitable for vertical and horizontal installations for indoor and outdoor applications
- Available in 3/4" to 4" NPT sizes.

**Standard Materials:**

- Body – *Feraloy*® iron alloy
- Pipe plugs, bolts and set screws – steel
- Gasket – neoprene

**Standard Finishes:**

- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Steel – electrogalvanized
- Gasket – natural

**Options:**

- Copper-free aluminum – add suffix -SA to Cat. No.

**Size Ranges:**

- 3/4" - 4"

**Certifications and  
Compliances:**

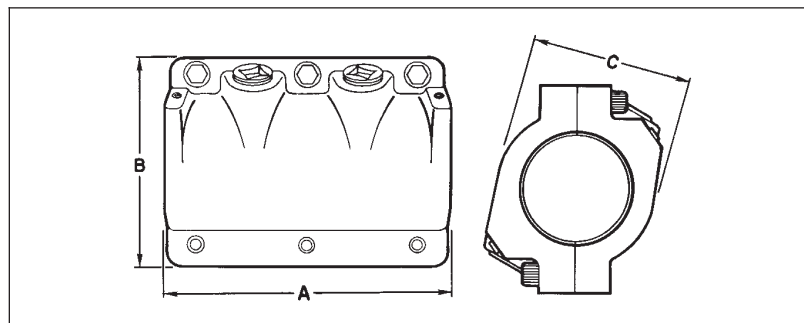
- NEC: Class I, Division 2, Groups C,D  
Class II, Division 2, Groups E,F,G
- UL Standard: 886, 1203
- CEC: Class I, Division 1, Groups C,D  
Class II, Division 1, Groups E,F,G
- CSA Standard: C22.2 No. 30

**NOTE:** EYSR sealing fittings are approved for use in hazardous locations only when Chico® A sealing compound and Chico X fiber are used to make the seal.



Hub Size	Cat. No.	Approximate Internal Volume in Cubic Inches*		Approximate Amount (oz.) of Fiber per Hub	
		Vert.	Horiz.	Vert.	Horiz.
3/4	EYSR2	3 1/2	5 3/4	1/16	1/8
1	EYSR3	4 3/4	9 1/2	1/8	1/4
1 1/4	EYSR4	7	13 1/2	1/4	1/2
1 1/2	EYSR5	12 1/4	24 1/4	1/2	1
2	EYSR6	25 3/4	40 1/2	1	2
2 1/2	EYSR7	48	75 1/2	1 1/2	3
3	EYSR8	86 1/2	126	2	4
3 1/2	EYSR9	147	210	4 1/2	9
4	EYSR10	186	252	4 1/2	9

\* Use the approximate internal volume in cubic inches to determine how much Chico A sealing compound is required.

**Dimensions**

Cat. No.	A	B	C	Cat. No.	A	B	C
EYSR2	3 11/16	2 1/2	1 1/2	EYSR7	7 1/2	5	3 7/8
EYSR3	4 3/8	3 1/8	3 1/8	EYSR8	8 1/2	5 1/2	4 1/4
EYSR4	5	3 3/8	3	EYSR9	9 13/64	6 1/16	4 3/4
EYSR5	5 1/4	3 5/8	3	EYSR10	9 3/4	6 5/8	5 1/4
EYSR6	6 1/4	4	3				

# ES Sealing Hubs

## Chico Sealing Compound and Fiber Page 193

Cl. I, Div. 1 & 2, Groups C,D  
Explosionproof  
Watertight

8F

Seals, Breathers  
& Drains

### Application:

ES sealing hubs are used to:

- seal vertical conduit risers at switchgear and motor control centers, sheet metal structures or cast boxes and enclosures
- Seal horizontal conduit runs at enclosures when used with TSC sealing compound.

### Standard Materials:

- Feraloy® iron alloy

### Standard Finishes:

- Electrogalvanized and aluminum acrylic paint

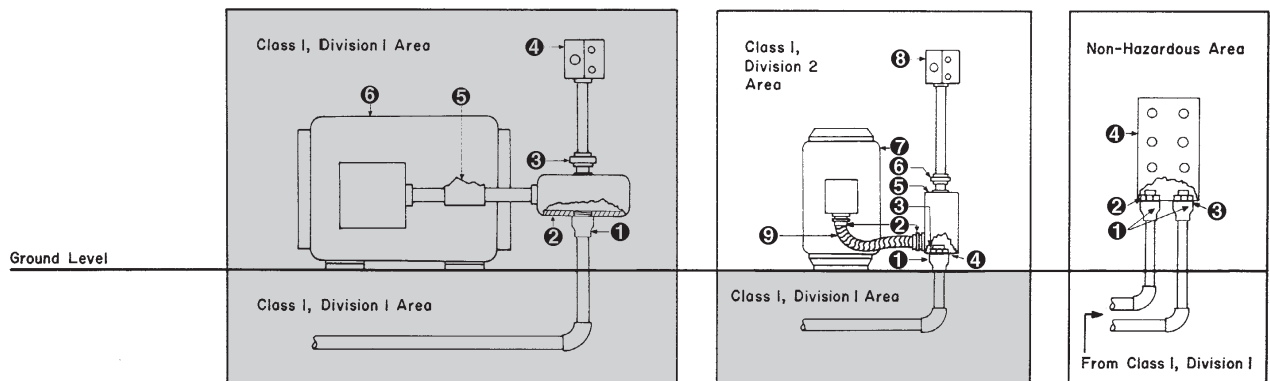
### Options:

- ES sealing hubs, when used with SG armored gaskets and locknuts, provide a water and oiltight connection
- Sealing gaskets and locknuts – add suffix SG to Cat. No.

### Certifications and Compliances:

- Class I, Division 1 & 2, Groups C & D
- UL Standard: 886
- CSA Standard: C22.2 No. 30

### Typical Installations

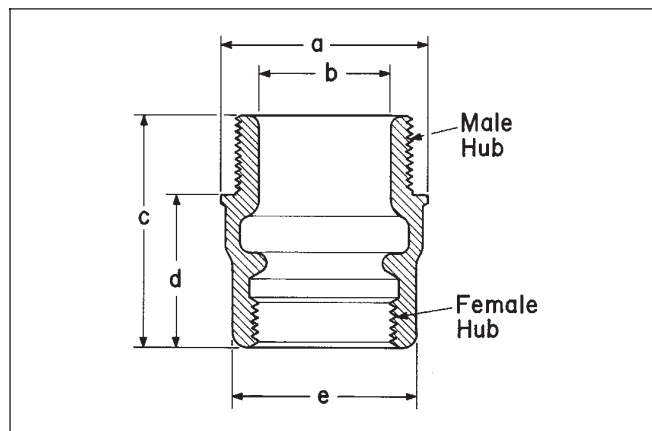


1. ES Sealing Hub 2. EJB Junction Box 3. UNY Union  
4. EDS Factory Sealed Control Station 5. EYS Horizontal Seal 6. Explosion-Proof Motor

1. ES Sealing Hub 2. LT Connector 3. Locknut 4. Sealing Gasket 5. Junction Box 6. UNY Union 7. Synchronous Motor 8. EDS Factory Sealed Control Station 9. LT Conduit

1. ES Sealing Hub 2. Locknut 3. Sealing Gasket 4. Sheet Metal Structure, Motor Control Center, Panelboard, Unit Substation, Etc.

### Dimensions



Cat. #	a	b	c	d	e
ES31	1 1/16	7/8	2	2 5/32	1 1/4
ES32	1 13/16	7/8	2	2 5/32	1 1/2
ES53	2 1/4	1 3/8	2 3/4	1 15/16	1 3/4
ES64	2 3/4	1 3/4	2 3/4	1 15/16	2 3/16
ES65	2 3/4	1 5/8	3 1/16	2	2 1/16
ES76	3 1/2	2 1/16	3 3/16	2	3
ES108	5 1/4	3 3/8	4 3/4	2 31/32	4 1/4
ES01210	6 5/8	4 5/8	6 3/4	4 27/32	5 1/4
ES014012	7 1/4	5 29/32	7 1/4	5 11/32	6 1/2

**NOTE:** Sealing hubs are approved for use in hazardous locations when *Chico*® X fiber and *Chico* A sealing compound are used to make the seal. Sealing hubs are approved for horizontal conduit runs for use in hazardous locations when used with TSC sealing compound, order 1 oz. tube as TSC1.



### TSC Epoxy Sealing Compound

A two part epoxy sealing compound may be used to seal ES sealing hubs. It is quick and easy to measure, mix and install. The compound is kneaded until a uniform color is obtained. It is then packed around the conductors to effectively seal the cable.

Std. Ctn. Qty.	Tube Size	Cat. # **
10	0.5 oz	TSC05
10	1.0 oz	TSC1
5	4.0 oz	TSC4

\*\* Order quantity of one (1) TSC05 or TSC1 equals 10 tubes; one (1) TSC4 equals 5 4.0 oz tubes.



Cooper Crouse-Hinds Secondary Process Sealing Fittings are designed to prevent the passage of gases under pressure through conduits, cables and conductors. They are ideal where volatile liquids or gases are stored, processed or transported under pressure. If the primary seal on an instrument should fail, the Cooper Crouse-Hinds Secondary Process Seal will prevent gases from migrating into the nonclassified location through the electrical system. This patent pending design is the first seal which is tested and certified for pressure applications.

## Features & Benefits

- Exclusive, patent-pending design — the first third-party approved secondary process seal
  - Standard pressure applications up to 40 psi (2.8 bar)
  - High-pressure applications up to 500 psi (35 bar)
- Kit contains everything required for complete installation
  - EABX26-SA body with 3/4" tapered threaded hubs to provide ground continuity
  - GUA062-GB sealing cover
  - GUAC26-SA body and cover
  - Process seal vent
  - Pressure relief tube
  - ECD16 Breather
  - Chico SS2 SpeedSeal (2) 2 oz Cartridges
  - Chico X fiber packet
  - PLG2-SA 3/4" plug
  - RE21-SA 3/4" to 1/2" reducer
  - Solder Sleeve connectors (4)
  - High-pressure fitting for PSHP (high-pressure) version only
  - UNF205 Explosionproof union for PSHP (high-pressure) version only

## Standard Materials & Finishes

- EAB Body — copper-free aluminum
- GUA Body and Cover — copper free aluminum
- High-pressure sealing fitting — Stainless steel with viton seal
- ECD16 breather — Stainless steel
- UNF205 Union — copper-free aluminum
- Reducers and Plugs — copper-free aluminum
- Process seal vent — silicon rubber
- Pressure relief tube — polyethylene

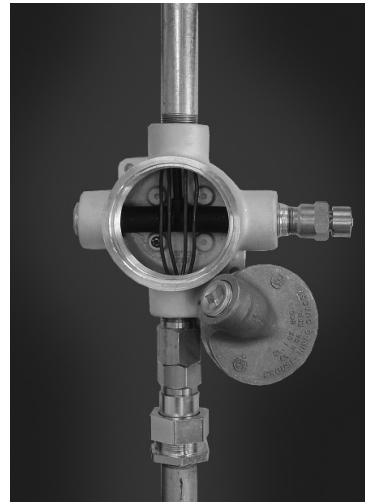
## Ordering Information

Secondary Process Sealing Fitting Kit for Standard pressure up to 40 psi (2.8 bar)

Trade Size	Conductor Size	Catalog Number
3/4"	10-14 AWG	EABX26-SA-PS

High-Pressure Secondary Process Sealing Fitting Kit for pressure up to 500 psi (35 bar)

Trade Size	Conductor Size	Catalog Number
3/4"	10 AWG	EABX26-SA-PSHP10
3/4"	12 AWG	EABX26-SA-PSHP12
3/4"	14 AWG	EABX26-SA-PSHP14



## Ratings

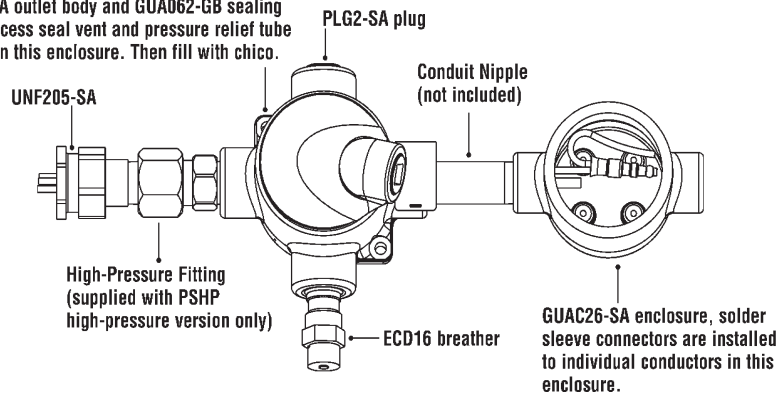
- Pressure ratings
  - Standard version — pressure up to 40 psi (2.8 bar)
  - High-pressure version — pressure up to 500 PSI (35 bar)
- Temperature range -25°C to +55°C

## Certifications & Compliances

- Class I, Division 1 & 2, Groups C,D
- CSA LTR Number HazLoc 031120

## Typical Installation

EABX26-SA outlet body and GUA062-GB sealing cover. Process seal vent and pressure relief tube installed in this enclosure. Then fill with chiko.





# Chico® A and Chico® A-P Sealing Compound

## Chico® X Fiber

## Chico® SpeedSeal™

### For Sealing Fittings and Hubs

#### Application:

##### Chico X fiber:

- forms a dam between the integral bushing of the sealing fitting and the end of the conduit and around the electrical conductors entering the hub

##### Chico A sealing compound:

- forms a seal around each electrical conductor and between them and inside of the sealing fitting to restrict the passage of gases, vapors or flames through the sealing fitting at atmospheric pressure and at normal ambient temperatures

##### Chico® SpeedSeal™ Compound:

- designed to separate and form an explosionproof seal around each electrical conductor in Crouse-Hinds EYS and EYD sealing fittings.
- restricts the passage of gasses, vapors or flames through the sealing fitting.
- creates a seal for Class I, Division 1, Groups C & D and Class II, Division 1, Groups E, F & G hazardous areas.

#### Features:

- Chico X fiber is a mineral wool that packs easily, forming around each conductor
- Chico A sealing compound is a water soluble powder, that can be easily mixed and poured. The compound, unusually dense, expands slightly when hardening and bonds to inner walls of sealing fittings. Compound hardens in 60-70 minutes
- Chico A cure time is 8 hours for class I, Group C and D applications and 72 hours for class I, Group A and B applications.
- Chico A has a 1 year shelf life from date of manufacture.
- Chico A ambient temperature range (after curing) is -40°F to +165°F.
- Chico A-P Intrapak®:

Packaged in two-compartment plastic pouch with precise amount of water for mixing. No mixing or measuring implements required.

A hard squeeze of the water compartment forces the water into the compartment containing the Chico compound. Mixing is completed by kneading the pouch for one minute.

The mixed sealing compound is poured directly into the sealing fitting – no funnel required. The package label indicates the size and quantity of sealing fittings each pouch will properly fill. Compound hardens in 60-70 minutes.

##### Chico® SpeedSeal™ Compound is a revolutionary material:

- installs a reliable seal in five minutes - *every time*
- hardens to a dense, strong mass that is suitable for Class I, Division 1, Groups C & D and Class II, Division 1, Groups E, F & G hazardous applications.
- UL and cUL Listed for use with 1/2" to 2" Copper Crouse-Hinds sealing fittings only.
- packaged in a 2 oz. or 6 oz. pre-measured cartridge, eliminating the need for measuring before mixing.
- packaged with a screw-on nozzle for accurate dispensing.
- expands four times its original size in the sealing fitting, eliminating the need to separate the individual conductors with Chico X fiber.
- Chico X fiber dams are not required in horizontal applications, reducing installation times.
- completely hardens in 20 minutes, simplifying use for OEMs.
- suitable for cold temperature environments without the costly need to build a temporary shelter around sealing fittings. All ice crystals must be removed from inside the conduit seal before dispensing Chico SpeedSeal compound. The Chico SpeedSeal compound should be kept above 10°C (50°F) prior to mixing. The sealing fitting must be kept at or above 4°C (40°F) during the 4 to 10 minute expansion/gel time of the compound.
- one year shelf-life.
- patent pending

#### Size Ranges:

- Chico A compound – 1 lb. to 5 lbs. (provides 23-115 cubic inches of compound)
- Chico X fiber – 2 oz. to 1 lb.
- Chico A-P (5 pouches per carton) – provides 25 and 55 cubic inches of compound.
- Chico SpeedSeal - 2 oz. or 6 oz. cartridge

NOTE: Cooper Crouse-Hinds sealing fitting are approved for use in hazardous locations only when Chico X fiber and Chico A Sealing Compound or Chico SpeedSeal are used to make the seal.

\* A sixth pouch, containing an appropriate quantity of Chico X fiber, is included in these cartons.

† Number of cubic inches this amount will fill when set. See internal volume requirements for EYS, EZS, EYD, EZD and EYSR sealing fittings and ES sealing hubs (pages 184 to 191).

‡ Includes 1 oz. Chico X fiber.



#### Chico A Sealing Compound

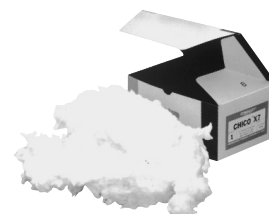
Net Weight	Vol. Cu. In.†	Cat. #
1 lb.	23	Chico A3
1 lb.‡	23	Chico A4
5 lb.	115	Chico A05



#### Chico A-P Intrapak® (provided with Chico X fiber)

#### Sealing Compound and Water in Plastic Mixing Pouch

Cu. In.	No. of Fill per Pouch†	No. of Pouches per Carton	Carton Cat. #
5	5	5	Chico A19-PX*
11	5	5	Chico A39-PX*



#### Chico X Fiber

Net Weight	Cat. #
2 oz.	Chico X4
8 oz.	Chico X6
1 lb.	Chico X7

#### Chart for Approximate Amount of Fiber Per Hub

Hub Size	Ozs. Required
1/2	1/32
3/4	1/16
1	1/8
1-1/4	1/4
1-1/2	1/2
2	1
2 1/2	1 1/2
3	2
3 1/2	3
4	4 1/2
5	7
6	10

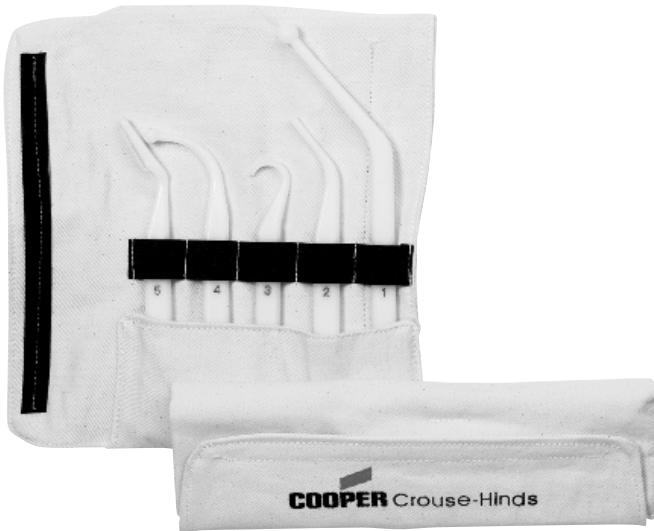


#### Chico SpeedSeal Ordering Information:

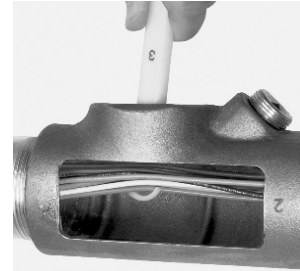
Sealing Fitting Catalog Number	Amount of SpeedSeal Material needed per fitting (in ounces)	SpeedSeal Catalog Number
EYS1, EYS16; EYS11, EYS116 EYD1, EYD16, EYD11, EYD116 EYS2, EYS26, EYS21, EYS216 EYD2, EYD26, EYD21, EYD216 EYSX11, EYDX11	1	CHICO SS2 (2 oz. Cartridge)
EYS3, EYS36, EYS31, EYS316 EYD3, EYD36, EYD31, EYD316 EYSX21, EYDX21	2	CHICO SS2 (2 oz. Cartridge)
EYS41, EYS416, EYS4, EYS46 EYD4, EYD46, EYD41, EYD416 EYS51, EYS516, EYS5, EYS56 EYD5, EYD56, EYD51, EYD516 EYSX31, EYDX31 EYSX41, EYDX41	3	CHICO SS6 (6 oz. Cartridge)
EYS61, EYS616, EYS6, EYS66 EYD6, EYD66, EYD61, EYD616 EYSX51, EYDX51	6	CHICO SS6 (6 oz. Cartridge)

MSDS sheets are available at [www.crouse-hinds.com](http://www.crouse-hinds.com)

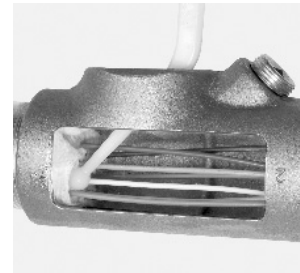




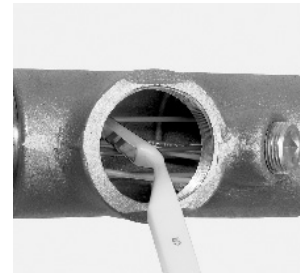
The Cooper Crouse-Hinds EYS Tool Kit lets you safely and reliably pack the fiber dam in explosionproof sealing fittings. Consisting of five patented, two-sided tools in a handy canvas bag, the EYS Tool Kit makes the critical steps of separating electrical conductors and packing fiber dams quick and easy.



The large hook on Tool #3 quickly lifts all the conductors.



With one of the packing tools, packing fiber in between and around electrical conductors is effortless.



The mirrored tool allows for proper inspection of the fiber dam in difficult to see areas.

### Features and Benefits:

- The EYS Tool Kit consists of five tools and a canvas tool bag. Four tools have two unique ends for a total of 9 different tools.
- Each tool is numbered for easy identification.
- Tools are constructed of durable plastic with smooth and rounded surfaces that will not abrade the electrical insulation.
- The Hook tool (#3) with a large hook on one end and a small hook on the other end is designed to lift and separate individual wires.
- The Packing tools (#1, #2 & #4) have rounded ends designed for packing fiber in between and around electrical conductors.
- The Wedge tools (#2 & #5) are designed for hands-free separation of conductors while packing fiber.
- The Mirrored tool (#5) allows for easy inspection of the sealing fittings.
- All tools are sized and precisely angled to accommodate various sizes of fittings.
- The Canvas tool bag is designed to neatly store and protect tools while not in use.

### Ordering Information:

Catalog Number

**EYS-TOOL-KIT**

## Application:

- ECD drains and breathers are installed in enclosures or conduit systems to:
  - provide ventilation to minimize condensation
  - drain accumulated condensate
- At least one breather should be used with each drain
- A breather is installed in top of enclosure or upper section of conduit system
- A “standard” drain is installed in bottom of enclosure or in lower section of conduit system
- “Universal” breather or drain functions as a breather when mounted at the top of an enclosure, or as a drain when mounted in the bottom of an enclosure
- “Combination” breather and drain is used in those applications where the use of a top mounted breather is not practical due to limited space; or in offshore and marine installations where moisture may enter the enclosure through the breather located on top of enclosure
- Drains and breathers are installed in hubs or drilled and tapped openings

## Features:

- ECD284, ECD384, ECD385 and ECD15 “Universal” drains and breathers have:
- patented labyrinth design, suitable for use in Class I, Division 1 & 2, Groups C,D and Class II, Division 1 & 2, Groups F,G areas
  - capability to pass 50 cc of water per minute and 0.2 cubic feet of air per minute at atmospheric pressure
  - ECD15 and ECD385 each have a well inside the inner, threaded end to provide for accumulation of sediment without clogging when used as a drain.
- “Standard” ECD drains and breathers have:
- thread-in-thread design, suitable for use in Class I, Division 1 & 2, Groups C,D; Class II, Division 1, Groups E,F,G; Class II, Division 2, Groups F,G and Class III areas
  - ECD 11, 13 have capability to pass 25 cc of water per minute and .05 cubic feet of air per minute at atmospheric pressure
  - ECD387 and ECD16 are a unique thread-in-shaft design for use in Class I, Division 1 & 2, Groups B,C,D; Class II, Division 1, Groups E,F,G; Class II, Division 2, Groups F,G; Class III areas. The ECD387 and ECD16 can pass 15cc of water per minute. The ECD16 can pass .01 cubic feet of air per minute.
- “Combination” ECD breather and drain:
- provides ventilation to minimize condensation and drains accumulated condensate – two functions performed by a single device installed in the bottom of an enclosure or conduit system
  - Have the capability to pass 25 cc of water per minute and .10 cubic feet of air per minute at atmospheric pressure
  - Thread-in-thread and labyrinth design, suitable for use in Class I, Division 1 & 2, Groups C and D; Class II, Division 1 & 2, Groups F and G; and Class III areas

## Size Ranges

- ¼" to ½"

## ECD “Type 4X” Drain and Breather

Size	Drain Cat. #	Breather Cat. #
¾	ECD38-N4D	ECD38-N4B
½	ECD1-N4D	ECD1-N4B

## ECD “Standard” Drain and Breather

Size	Drain Cat. #	Breather Cat. #
¼	ECD281	
¾	ECD387	
½	ECD11	ECD13

## ECD “Universal” Drain or Breather

Size	Cat. #
¼	ECD284†
¾	ECD384†
¾	ECD385
½	ECD15
½	ECD16

## ECD

## “Combination” Drain and Breather

Size	Cat. #
½	ECD18

## Standard Materials:

- ECD11, ECD15, ECD281, ECD284, ECD384, ECD385 – stainless steel
- ECD13 – stainless steel with aluminum cap
- ECD16, ECD-N4D, ECD-N4B – stainless steel
- ECD387 – stainless steel
- ECD18 – Stainless steel with neoprene tube

## Certifications and Complies:

- NEC/CEC:
  - ECD 16, ECD387, ECD-N4D, ECD-N4B** – Class I, Division 1 & 2, Groups B,C,D  
Class II, Division 1, Groups E,F,G  
Class II, Division 2, Groups F,G  
Class III
  - ECD11, ECD13, ECD281** – Class I, Division 1 & 2, Groups C,D  
Class II, Division 1, Groups E,F,G  
Class II, Division 2, Groups F,G  
Class III
  - ECD18, ECD384, ECD15, ECD385** – Class I, Division 1 & 2, Groups C,D  
Class II, Division 1, Groups F,G  
Class II, Division 2, Groups F,G  
Class III
  - ECD284** – Class I, Division 1 & 2, Group C,D  
Class II, Division 1, Groups F,G  
Class II, Division 2, Groups F,G
- UL: Standard 886
- CSA Standard: C22.2 No. 30
- Type 4X: ECD-N4D and ECD-N4B

† Shorter overall length than ECD15 and ECD385. For use in confined spaces such as panelboard assemblies.



ECD11



ECD13



ECD15



ECD16



ECD18



## Typical installation of drain and breather in a combination motor starter

- NOTES:** 1. At least 5 full threads of drain or breather must be engaged in matching female thread, taper-tapped in accordance with NEMA/EEMAC Standard FB-1, Type NTC or National Bureau of Standards Handbook H28, Part II, Table 7.6.
2. These breathers and drains can be factory installed on various explosion-proof equipment. See options on applicable equipment pages for suffixes to be used.

# 8F CD Series Ordinary Location Drain

## Straight Body • Male Thread

Seals, Breathers  
& Drains

### Application:

CD Series drains are for use in conduit systems to:

- Drain accumulated condensate.
- Provide ventilation to minimize condensation.

Drains are installed in hubs or drilled and tapped openings.

### Standard Materials:

- CD bodies and nuts – steel or aluminum
- CD screen – stainless steel

### Standard Finishes:

- Steel – electrogalvanized with chromate treatment.

### Certifications and Compliances:

- UL Standard 514B

### Options:

- Copper-free aluminum construction – add suffix -SA

### Ordering Information:

Size	Cat. #
1/2	CD1
3/4	CD2



## NEMA 4X BREATHER/DRAIN

### ATEX and CENELEC Range

I M2 II 2GD, E Exe I & II  
(Stainless Steel & Brass only)  
II 2GD, E Exe II (Nylon version)  
CSA Class I, Division 2, Groups  
A, B, C & D, Exe II

Enclosure Type 4X  
IP66



### Certifications and Compliances

- SIRA 99 ATEX 3050U
- I M2 II 2GD, E Exe I & II (Stainless Steel & Brass only)
- II 2GD, E Exe II (Nylon only)
- CSA Class I, Division 2, Groups A, B, C & D, Exe II
- Enclosure Type 4X
- IP66

### Operating Temperature

- -50°C to +85°C

### Application

For use in enclosures to provide a method to effectively drain moisture while allowing the enclosure to breathe.

### Features

All NEMA 4X breather/drains offer:

- Castellated locknuts that allow moisture to pass between the enclosure and the locknut to the drain holes in the fitting.
- Available in brass, stainless steel (Type 316) or 30% glass filled nylon.
- Captive "O" ring on recess of the face of the breather/drain to optimize ingress protection.
- ATEX and CSA Certified for worldwide market acceptance.
- Available with metric or NPT threads.

### Ordering Information

#### NEMA 4X Breather/Drain

Entry Method	Material	Catalog Number
M20	Brass	ACDPEB/M20/15
M20	Stainless Steel	ACDPES/M20/15
M20	Nylon	ACDPEBN/M20/15
M25	Brass	ACDPEB/M25/15
M25	Stainless Steel	ACDPES/M25/15
M25	Nylon	ACDPEBN/M25/15
1/2"	Brass	ACDPEB/050NPT/15
1/2"	Stainless Steel	ACDPES/050NPT/15
3/4"	Brass	ACDPEB/075NPT/15
3/4"	Stainless Steel	ACDPES/075NPT/15