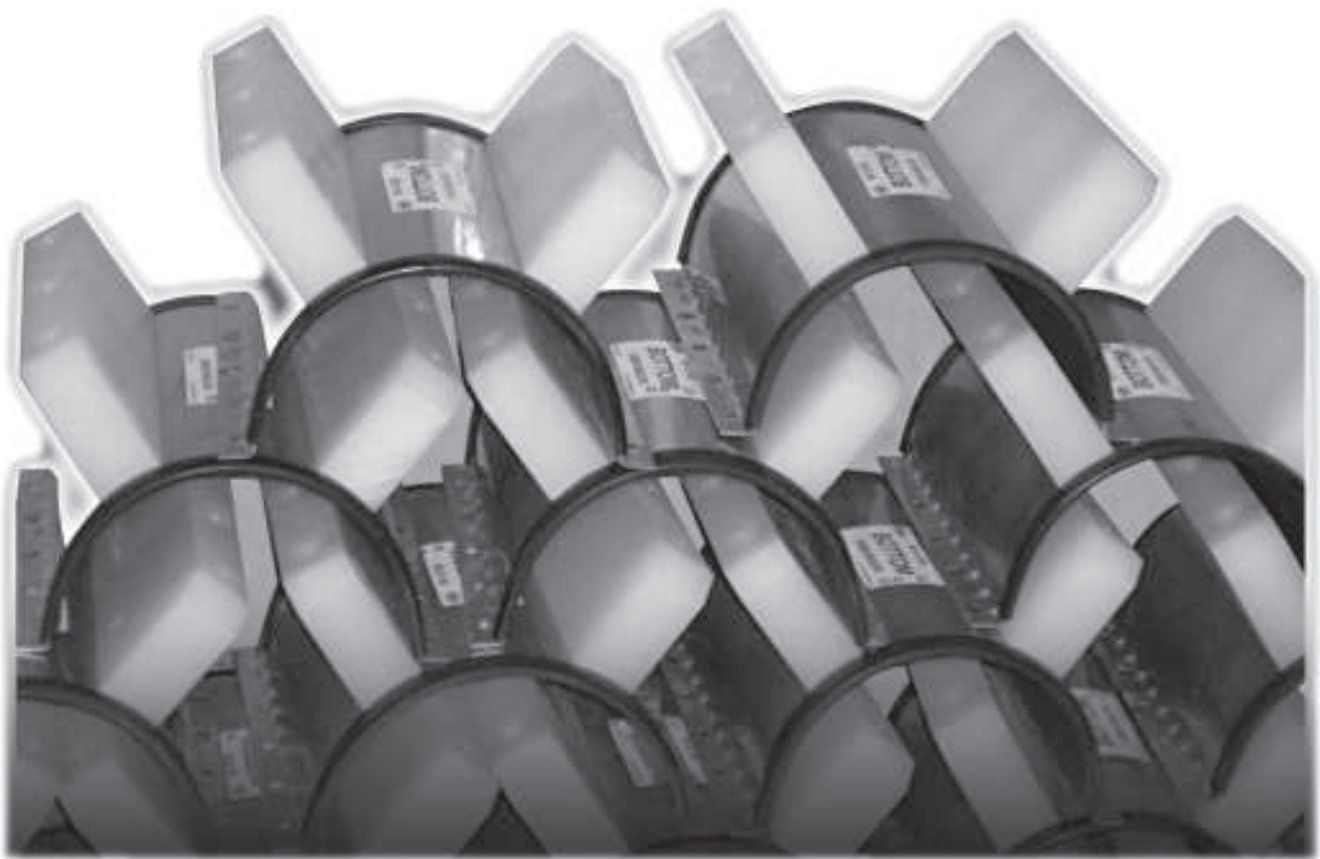
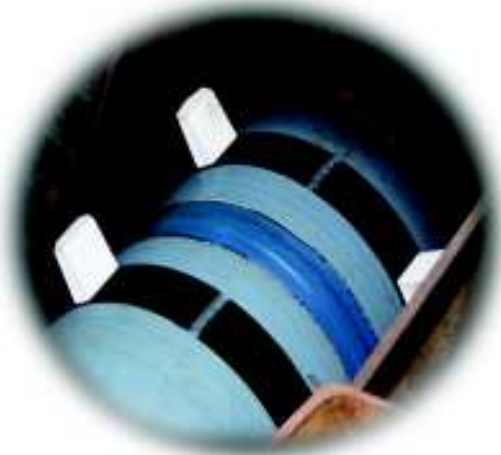


# *Casing Spacers* *AND End Seals*



***CALPICO, INC.***

**MANUFACTURING AND SUPPLYING  
UNDERGROUND PIPING PRODUCTS  
*SINCE 1963***



## **GALVANIZED CASING INSULATOR**

**Model M-6 \* Model M-8 \* Model M-12**

- Bands are 14 gauge, hot rolled, pickled, and oiled carbon steel.
- Runners are abrasion resistant, and are attached mechanically with bolts and the bolt heads are TIG welded to the band.
- Bolting flanges are provided for extra strength.
- An extra heavy duty vinyl liner assures double insulation.
- Skids are available in polyethylene & phenolic.

### **Available in three band width sizes:**

- ➊ MODEL M-6 - 6" wide band
- ➋ MODEL M-8 - 8" wide band
- ➌ MODEL M-12 - 12" wide band

*3" – 16" carrier pipe requires M-6*

*16"/18" – 36" carrier pipe requires M-8*

*38" and above requires M-12*

*Centered & Restrained, Centered & Non-Restrained, Non-Centered & Restrained, Non-Centered & Non-Restrained available.*

**Typical Spacing:** GENERAL – 13' length of carrier pipe: 2 spacers per stick. 18' – 20' length: 3 spacers per stick. Note: (Pipe with a tendency to bow, may require 3 per 13' or 4 per 18'-20'.) SOME APPLICATIONS, AND LARGE DIAMETER PIPE MAY REQUIRE ADDITIONAL SPACERS. Consult Factory. Install 1'- 1 1/2' from the end of each joint & typically every 8' – 10' thereafter, or per engineer specifications.

<i>BAND:</i>	<i>ASTM A36</i>
<i>RISER:</i>	<i>ASTM A36</i>
<i>LINER:</i>	<i>ASTM D149</i>
<i>RUNNERS:</i>	<i>ASTM D638</i>

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## **STAINLESS STEEL CASING INSULATOR**

**Model M-6-SS \* Model M-8-SS \* Model M-12-SS**

- Bands are 14 gauge, grade 304 stainless steel.
- Runners are abrasion resistant, and are attached mechanically with bolts and the bolt heads are TIG welded to the band.
- Bolting flanges are provided for extra strength.
- An extra heavy duty vinyl liner assures double insulation.
- Skids are available in polyethylene & phenolic.

### **Available in three band width sizes:**

- ➊ MODEL M-6-SS - 6" wide band
- ➋ MODEL M-8-SS - 8" wide band
- ➌ MODEL M-12-SS - 12" wide band

3" – 16" carrier pipe requires M-6-SS  
16"/18" – 36" carrier pipe requires M-8-SS  
38" and above requires M-12-SS  
Centered & Restrained, Centered & Non-Restrained, Non-Centered  
& Restrained, Non-Centered & Non-Restrained available.

**Typical Spacing:** GENERAL – 13' length of carrier pipe: 2 spacers per stick. 18' – 20' length: 3 spacers per stick. Note: (Pipe with a tendency to bow, may require 3 per 13' or 4 per 18'-20'.) SOME APPLICATIONS, AND LARGE DIAMETER PIPE MAY REQUIRE ADDITIONAL SPACERS. Consult factory. Install 1' – 1 1/2' from the end of each joint & typically every 8' – 10' thereafter, or per engineer specifications.

*BAND:* ASTM A240  
*RISER:* ASTM A240  
*LINER:* ASTM D149  
*RUNNERS:* ASTM D638

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## FUSION COATED POLYVINYL OR EPOXY INSULATOR

**Model M-6-FCV or FCE \* Model M-8-FCV or /FCE  
Model M-12-FCV or FCE**

- ◀ Bands are 14 gauge steel, with 10 mil vinyl or epoxy coating.
- ◀ Runners are abrasion resistant, and are attached mechanically with bolts and the bolt heads are TIG welded to the band.
- ◀ Bolting flanges are provided for extra strength.
- ◀ An extra heavy duty vinyl liner assures double insulation.
- ◀ Skids are available in polyethylene & phenolic.

**Available in three band width sizes:**

- ❶ MODEL M-6-FCV or FCE - 6" wide band
- ❷ MODEL M-8-FCV or FCE - 8" wide band
- ❸ MODEL M-12-FCV or FCE - 12" wide band

3" – 16" carrier pipe requires M-6-FCV/FCE  
16"/18" – 36" carrier pipe requires M-8-FCV/FCE  
38" and above requires M-12-FCV/FCE  
Centered & Restrained, Centered & Non-Restrained, Non-Centered  
& Restrained, Non-Centered & Non-Restrained available.

**Typical Spacing:** GENERAL – 13' length of carrier pipe: 2 spacers per stick. 18' – 20' length: 3 spacers per stick. Note: (Pipe with a tendency to bow, may require 3 per 13' or 4 per 18'-20'.) SOME APPLICATIONS, AND LARGE DIAMETER PIPE MAY REQUIRE ADDITIONAL SPACERS. Consult factory. Install 1' – 1 1/2' from the end of each joint & typically every 8' – 10' thereafter, or per engineer specifications.

*CARBON STEEL BAND:* ASTM A36  
*LINER:* ASTM D149  
*RUNNERS:* ASTM D638

# SPECIFICATIONS

## Band

- 14 gauge
- stainless steel or epoxy coated
- 6", 8", & 12" wide

## Bolts, Nuts, & Washers

- cadmium plated or stainless steel
- 5/16" diameter

## Insulating Liner

- PVC or EPDM
- .090" durometer
- 1% max. water absorption
- overlapping edges

## Runners

- 1.25", 1.50" wide:  
LDPE
- 17,400 psi tensile strength
- 25,000 psi flexural strength
- 17,800 psi compressive strength
- 2.00" wide:  
HDPE
- 22,000 psi tensile strength
- 32,000 psi flexural strength
- 25,000 psi compression strength
- 100 Rockwell hardness

## Risers

- 10 gauge steel on risers when used

CALPICO, Inc. has been a reputable manufacturer and supplier of underground piping products since 1963. Our proven record of reliable product performance and outstanding service speaks for itself. Our goal is to provide to our customers superior customer service, an experienced and reliable sales staff, and a superior product. It is our mission to supply the best product, the best customer service, and the best lead time possible. We take great pride in our success and will strive to continue this success in the future. Calpico is a family owned and operated business. You can be sure that your satisfaction is our priority.

***Some of the products available from CALPICO:***

Pipe Linx  
Casing Insulators  
Flange Insulations Kits  
Pipe Identification Markers  
Cut Flange Gaskets  
Valve Identification Tags  
Adhesive Pipe Wrapping Tape  
Locater and Tracer Tape  
Wall Sleeves  
Manhole Adapter Seals  
Anodes  
Cathodic Protection  
....and other piping & electrical products.

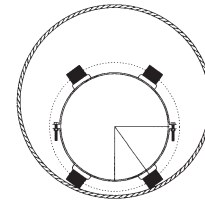
***Your satisfaction is our success.....***

***CALPICO, INC.***

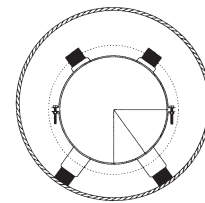
***1387 San Mateo Ave. — So. San Francisco, CA 94080  
650 588-2241 phone — 650 873-6952 fax  
800 998-9115 toll free***

## Model W

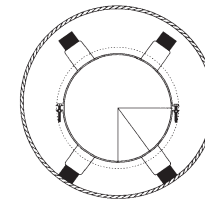
Calpico Model W End Seals are a split wrap-around style. This model is preferred because the seal can be applied after the pipe is pulled through the casing, and ensures a better fit because it can be adjusted to variables in coating thickness of pipe. Permanent adhesive, butyl mastic strips, bond the two exposed edges into one permanent seal. Just press each exposed edge together. These end seals are made of 1/8" thick flexible coal tar reinforced with fiberglass providing an extra tough waterproof membrane. Provided with two stainless steel bands and clamps. Not recommended for use under pressure. For pressure applications, use Calpico Pipe Linx.



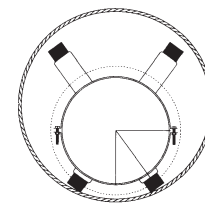
**NON CENTERING**



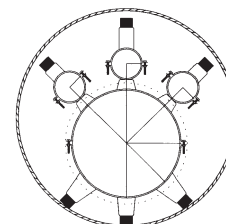
**CENTERED**



**CENTERED-RESTRAINED**



**NON CENTERING-RESTRAINED**



**CLUSTERED**

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## Model C

Calpico Model C End Seals are a seamless, slip-on boot style. They are made from 1/8" thick synthetic neoprene rubber and come provided with two stainless steel bands and clamps. This type of end seal is applied while pulling the carrier through the casing. This model is designed for easy installation and will also fit any carrier-casing combination where unusual lateral movement can be expected.

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## Model V

Calpico Model V Special End Seals are a split wrap-around style. They are made of 1/8" Styrene Butadiene Rubber (SBR) and come provided with two stainless steel bands and clamps.

# MODEL P SPECIFICATIONS

Typical carrier pipe type: IPS only

ESPREE Nylon Resin GYYSL-1000

## Melting Point

- 480° – 500° F

## Specific Gravity (water-1)

- >1

## Water Solubility

- Insoluble

## Compressive Strength

- 3200 psi
- ASTM D-693

## Density

- 0.960
- ASTM D-792

## Tensile Strength

- 3100-5500 psi
- ASTM D-638

## Yield Strength

- 3000 psi
- ASTM D-638

## Break Strength

- 2100 psi
- ASTM D-638

## Flexural Strength

- 1110 psi
- ASTM D-790

## Impact Strength

- 1.1 ft.lb/in.
- ASTM D-256



Calpico **Model P** insulators are made of high density (linear) polyethylenen, making them deal for applications using small pipe sizes, as small as 1". This material provides high impact strength, a low coefficient of friction and excellent abrasion resistance.

The high insulating value and low water absorption characteristics of the non-filled, polyethylene assures negligible current loss, positive insulation and complete cathodic protection.

Model P insulators are light in weight, economical, easy to handle and easy to install. No special tools are needed.

Non-deteriorating polyethylene lasts indefinitely in the casing. The only metal present is the connecting bolts. A ribbed inner surface prevents slippage and coating damage.

Calpico Model P insulators are made in two halves for pipe sizes in the 1" through 12" range. Polyethylene runners are molded in each insulator section. Runner height for all sizes is less than 1". All bolts, nuts, and washers are cadmium plated and these are shipped in a package with the insulators. Stainless steel hardware is also available, which is our Model P-SS. Spacing every 4' – 6', or per engineer specification or application requirements. Pipe with a tendency to bow may require additional spacers.



*Family of Casing*

Placed on a blu

# Standard Specifications:

## FLEXIBLE COAL TAR W/ FIBERGLASS

- Thickness: 70 mil
- Tensile, reinforcement only (psi): 2400
- Elongation, ultimate Failure of tar mass: 500% min.
- Permeance – Perms: 0.002
- Puncture Resistance (lbs): 225 avg.
- Pliability: passes

Also avail. in Nitrile Buna-N.

Grade 304 Stainless Steel bands are standard. Two 2" bands are furnished with each end seal and can be tightened easily to insure a tight seal. No special tools required. Bands are a non-magnetic worm gear mechanism.



## NEOPRENE

- Durometer - 60 +/-5
- Average Tensile - 1
- Average Elongation - 350%
- Temperature Limits: -20° F to +212° F
  - Color: Black
  - Finish: Smooth
- Polymer Content: 20%
- Specific Gravity: 1



## STYRENE BUTADIENE RUBBER

- Tensile Strength, psi: 1450
  - Elongation, %: 250%
- Hardness, Duro A 70 +/- 5
- Heat Resistance: ASTM D 573  
70 HRS @ 212° F (100° C)  
+/- 30% max change in Tensile Str.  
-25% max  
+10 points change in hardness.
- Compression Set : ASTM D 395  
D395 method - solid  
22 hrs @ 158°F 50%





## MODEL PX SPECIFICATIONS

### Tensile Strength:

- 3100 – 5500 psi
- ASTM D-638-651

### Density:

- 0.960
- ASTM D-792

### Appearance:

- Translucent White

### Compressive Strength:

- 3200 psi
- ASTM D-693

### Yield Strength:

- 3000 psi
- ASTM D-638

### Break Strength:

- 2100 psi
- ASTM D-638

### Water Absorption:

- <0.1%
- ASTM D570

### Impact Strength:

- 1.1 ft. lb/in.
- ASTM D-256

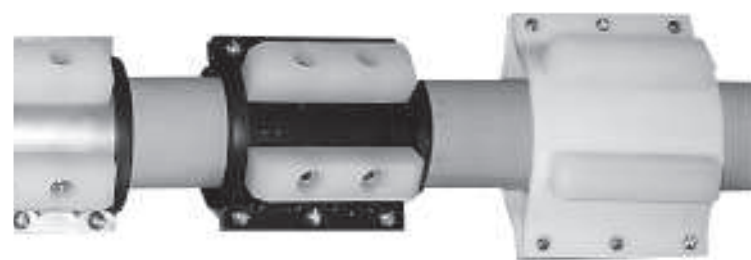
### Flexural Strength:

- 1110 psi
- ASTM D-790

**MODEL PX** injection molded plastic casing insulators are ideal to keep carrier pipe isolated from casing. This model is manufactured from polyethylene, which provides high impact strength and a low coefficient of friction. Non-deteriorating polyethylene lasts indefinitely inside the casing. Excellent dielectric resistance and low moisture absorption for minimal electric current loss and no impairment of cathodic protection. The only metal is the hardware. A grooved inner surface prevents slippage and damage to any coating the pipe may have. Model PX insulators are light in weight, economical, easy to handle, and easy to install. No special tools are needed.

Our Model PX insulator is offered in sizes 4" through 16". They are constructed in two halves with 6" wide bands. They can be manufactured with runner heights 1" - 6" (or higher in some applications) to accommodate centering of pipe in larger casing, and to clear the dimension of the bell or coupling. A fusion process in which HDPE material is added to each runner extends height and essentially provides a one piece runner.

All bolts, nuts, and washers are cadmium plated and are shipped in a package attached to each insulator. We also offer stainless steel hardware, which is the Model PX-SS.



*ing Insulators*

blue carrier pipe.

*Typical Spacing:* GENERAL - 13' length of carrier pipe: 2 spacers per stick. 18' - 20' length: 3 spacers per stick. Note: Pipe with a tendency to bow, may require 3 per 13' or 4 per 18'-20'. SOME APPLICATIONS, AND LARGE DIAMETER PIPE MAY REQUIRE ADDITIONAL SPACERS. Consult Factory. Install 1' - 1' ?' from the end of each joint & typically every 6' - 10' thereafter, or per engineer specifications.