

EXHIBIT A
City of Boerne
Shop Drawing Transmittal No. 02224 - 01
(Spec Section) (Series)

Project Name: George's Ranch Unit 1		Date Received:	
Project Owner: The Lookout Group		Checked By:	
Contractor: VK Knowlton	Engineer: Cude Engineering	Log Page: -	
Address: 18225 FM 2252 San Antonio, Tx 78266	Address: 4122 Pond Hill Rd #101 San Antonio, Tx 78231	City of Boerne No.:	
		Spec Section: 02224	
		Drawing/Detail No.:	
Attn: Derek Moczygemba	Attn: Patrick Murphy	1st. Sub	ReSub.
Date Transmitted: 11/15/2023	Previous Transmittal Date:		

Item No.	No. Copies	Description	Manufacturer	Mfr/Vendor Dwg or Data No.	Action Taken*
		Steel Casing	CIERRA PIPE		
		Casing Spacers	SSI		
		End Seals	ADVANCE PRODUCTS & SYSTEMS		

Remarks:

* The Action Designated Above is in Accordance with the Following Legend:

A - Furnish as Submitted

D - Rejected

B - Furnish as Noted

E - Engineer's review not required

C - Revise and Submit

1. Not enough information for review.
2. No reproduces submitted.
3. Copies illegible.
4. Not enough copies submitted.
5. Wrong sequence number.
6. Wrong resubmittal number.
7. Wrong spec. section.
8. Wrong form used.
9. See comments.

1. Submittal not required.
2. Supplemental Information. Submittal retained for informational purposes only.
3. Information reviewed and approved on prior submittal.
4. See comments.

Comments:

Distribution:

Contractor



File ☐

City of Boerne ☐

Owner ☐

By

Date

Other ☐



Cierra Pipe, Inc. will be furnishing the following material for the above mentioned job:

20"OD x .375"W x 78.67 lb. New Limited Service Steel Pipe, with Mid-Welds,
Bevel x Square Cut Ends, SRL's, with a Minimum Yield of 35,000

**24"OD x .375"W x 94.7 lb. New Limited Service Steel Pipe, with Mid-Welds,
Bevel x Square Cut Ends, SRL's, with a Minimum Yield of 35,000**

18"OD x .375"W x 70.59 lb. New Limited Service Steel Pipe, with Mid-Welds,
Bevel x Square Cut Ends, SRL's, with a Minimum Yield of 35,000

16"OD x .375"W x 62.64 lb. New Limited Service Steel Pipe, with Mid-Welds,
Bevel x Square Cut Ends, SRL's, with a Minimum Yield of 35,000

**30"OD x .375"W x 118.76 lb. New Spiral Weld Steel Pipe, Bevel x Square Cut
Ends, SRL's, with a Minimum Yield of 35,000**

12 3/4"OD x .375"W x 49.61 lb. New Limited Service Steel Pipe, Bevel x Square
Cut Ends, SRL's, with a Minimum Yield of 35,000

36"OD x .375"W x 142.81 lb. New Spiral Weld Steel Pipe, Bevel X Square Cut
Ends, SRL's, with a Minimum Yield of 35,000

48"OD x .375"W x 190.92 lb. New Spiral Weld Steel Pipe, Bevel x Square Cut
Ends, SRL's, with a Minimum Yield of 35,000

14"OD x .375"W x 54.57 lb. New Limited Service Steel Pipe, Bevel x Square
Cut Ends, SRL's, with a Minimum Yield of 35,000

8 5/8"OD x .322"W x 28.58 lb. New Limited Service Steel Pipe, Bevel x Square
Cut Ends, SRL's, with a Minimum Yield of 35,000

If there is any additional information that you may need concerning this, please do
not hesitate to give me a call.

Regards,
Richard Ehlinger
Cierra Pipe, Inc.

4511 Brittmoore Rd.

PO Box 19469

Houston, TX 77224

713-434-1114

Fax: 713-434-0896

5780 SH 22 East

Hillsboro, TX 76645

Fax: 254-582-2751

6510 IH-10 West

Seguin, TX 78155

830-914-2530

Fax: 830-914-2737

CASING INSULATOR SPECIFICATION

10" C900 PVC CARRIER PIPE/24" .375W STEEL CASING

PART# : SSIM-1024-CR-13-V

BAND

- 8" WIDE
- 14 GA. (.074") 304 STAINLESS STEEL
- 2-B FINISH
- RIBBED FLANGES

LINER

- PVC LINER (0.096")
- HARDNESS - DUROMETER "A" 80 +/- 5
- OPERATING TEMP: 140 F
- DIELECTRIC STRENGTH - 60,000 V

RUNNER

- 2" WIDE X 4 1/2" HIGH MOLDED POLYMER-MOD
- 2 TOP
- 2" WIDE X 6" HIGH MOLDED POLYMER-MOD
- 2 BOTTOM

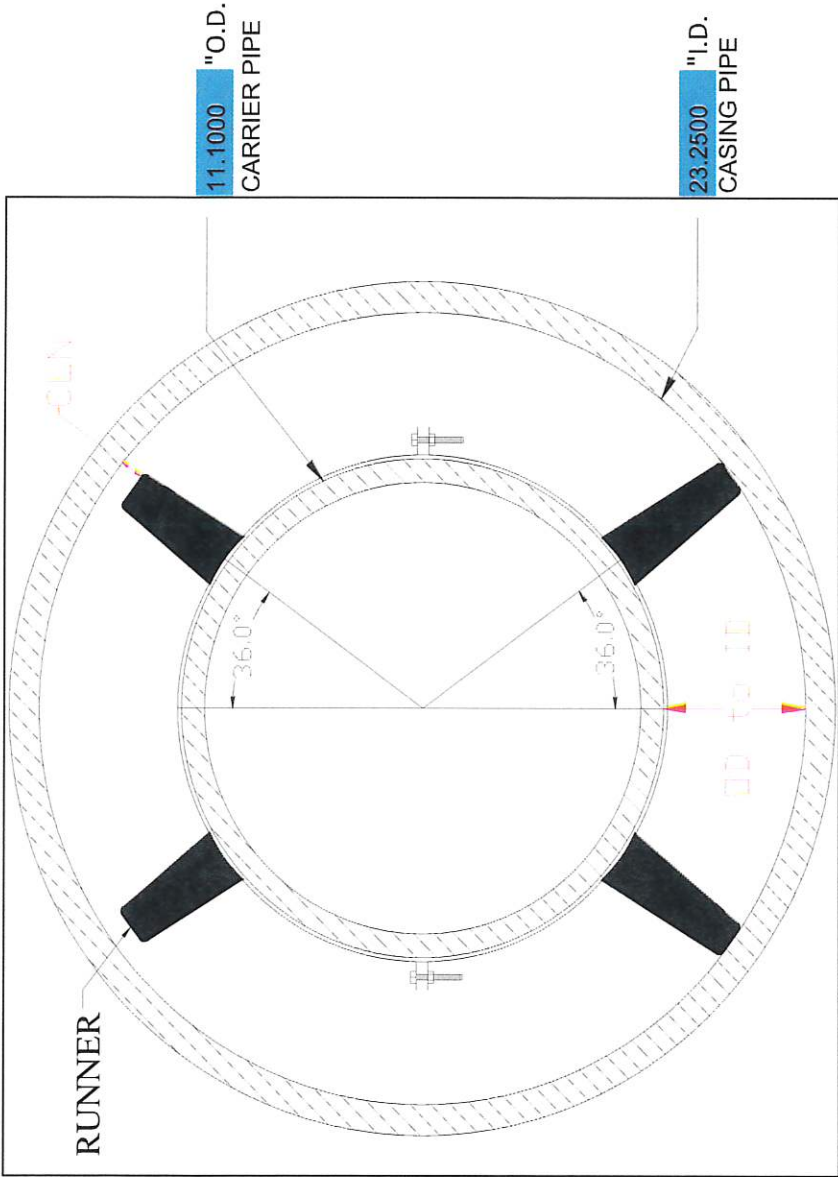
ASSEMBLY HARDWARE

- 3 SETS PER FLANGE
- 5/16" - 18 X 2" STAINLESS STEEL BOLTS
- 5/16" STAINLESS STEEL WASHERS
- 5/16" STAINLESS STEEL NUTS

CUSTOMER APPROVAL

PRINT NAME

SIGNATURE



STATIC LOAD: 6,000 LBS
DYNAMIC LOAD: 3,000 LBS
CLN=CLEARANCE= 1.3 ± 1 / 4"
OD TO ID= 6.1 ± 1 / 4"
(call for exact OD of Carrier to ID of Casing)

SPACER WEIGHT: 14lbs

DRAWING IS NOT TO SCALE

COMMENTS:

PIPE(lbs/ft): 0 PIPE TYPE: XXX

Advance Products & Systems

P.O. Box 60399
Lafayette, LA. 70578-0399
Ph.# (337)233-6116 Fax # (337)232-3860

Casing Spacer

Drawn by: KR

Approved by: MAR

11.1 X 23.25

1/31/2023

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CASING INSULATOR SPECIFICATION

12" C900 PVC CARRIER PIPE/24".375W STEEL CASING

PART# : SSIM-1224-CR-50-V

BAND

8" WIDE
14 GA. (.074") 304 STAINLESS STEEL
2-B FINISH
RIBBED FLANGES

LINER

PVC LINER
HARDNESS - DUROMETER "A" 85-90
OPERATING TEMP: 140 F
DIELECTRIC STRENGTH - 60,000 VPM

RUNNER

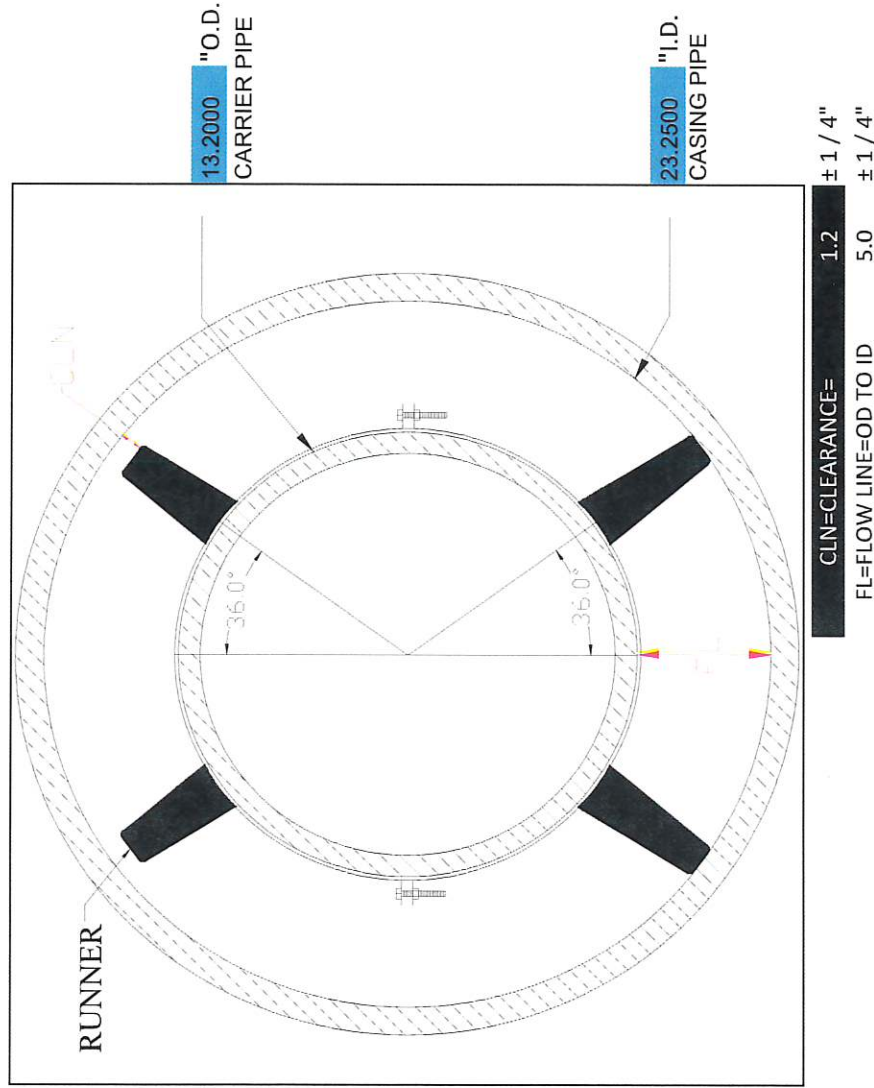
2" WIDE X 3 1/2" HIGH MOLDED POLYMER-MOD
2 TOP

2" WIDE X 5" HIGH MOLDED POLYMER-MOD
2 BOTTOM

ASSEMBLY HARDWARE

3 SETS PER FLANGE
1/4" - 20 X 2" STAINLESS STEEL BOLTS
1/4" STAINLESS STEEL WASHERS
1/4" STAINLESS STEEL NUTS

CUSTOMER APPROVAL	
PRINT NAME	SIGNATURE



DRAWING IS NOT TO SCALE		PIPE (lbs/ft): 0		PIPE TYPE: XXX	
COMMENTS:					
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		Casing Spacer	Drawn by:	miguellr	
		13.2 X 23.25	Approved by:	JEW	
				1/12/2016	

CASING INSULATOR SPECIFICATION

16" C900 PVC CARRIER PIPE/30".375W STEEL CASING

PART# : SSIM-1630-CR-9-V

BAND

8" WIDE
14 GA. (.074") 304 STAINLESS STEEL
2-B FINISH
RIBBED FLANGES

LINER

PVC LINER (0.096")
HARDNESS - DUROMETER "A" 80 +/- 5
OPERATING TEMP: 140 F
DIELECTRIC STRENGTH - 60,000 V

RUNNER

2" WIDE X 5" HIGH MOLDED POLYMER-MOD
2 TOP

2" WIDE X 5 1/2" HIGH MOLDED POLYMER-MOD
2 BOTTOM

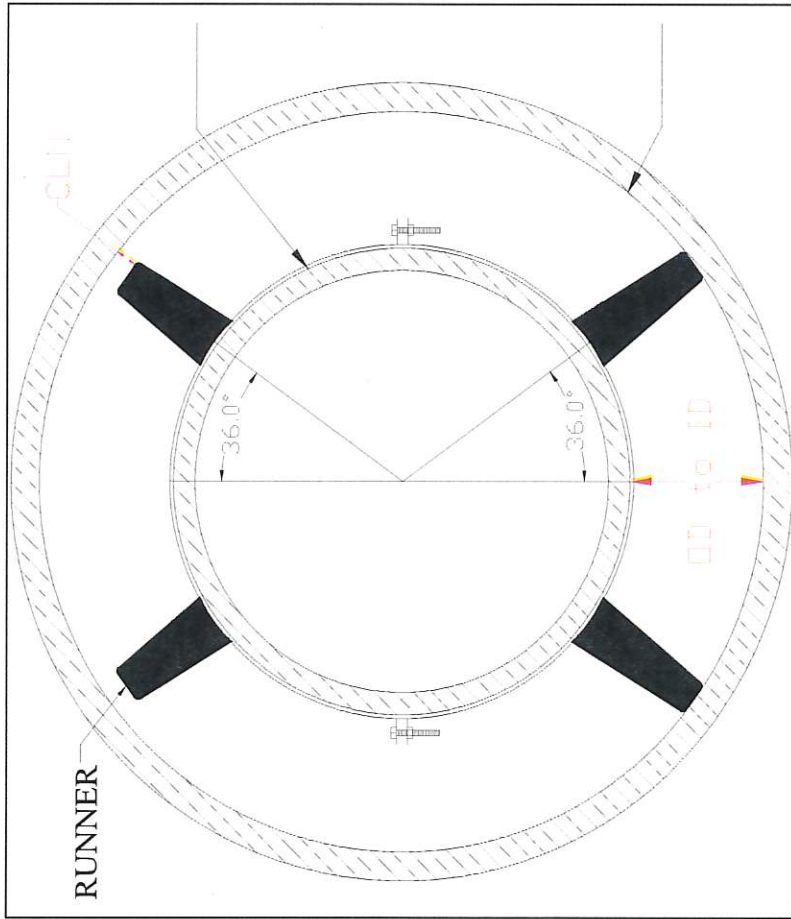
ASSEMBLY HARDWARE

3 SETS PER FLANGE
1/4" - 20 X 2" STAINLESS STEEL BOLTS
1/4" STAINLESS STEEL WASHERS
1/4" STAINLESS STEEL NUTS

CUSTOMER APPROVAL

PRINT NAME

SIGNATURE



17.4000 "O.D.
CARRIER PIPE

29.2500 "I.D.
CASING PIPE

CLIN=CLEARANCE= 1.0 ± 1 / 4"
OD TO ID= 5.9 ± 1 / 4"

(call for exact OD of Carrier to ID of Casing)

STATIC LOAD:

6,000 LBS

DYNAMIC LOAD:

3,000 LBS

DRAWING IS NOT TO SCALE

COMMENTS:

PIPE(lbs/ft):

0 PIPE TYPE: XXX



Advance Products & Systems

P.O. Box 60399

Lafayette, LA, 70578-0399

Ph.# (337)233-6116 Fax # (337)232-3860

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Casing Spacer

Drawn by: KL

Approved by: JEW

17.4 X 29.25 8/9/2019

STAINLESS STEEL BAND CASING SPACERS MODEL SSI

ISO-9001 Certified



Band and Risers

Band - 14 Gauge, T-304 Stainless Steel
Width: 8" & 12"
Riser - 10 Gauge T-304 Stainless Steel

Liner

EPDM

Thickness - .090" (2.29mm) min.
Hardness - Durometer "A" 85-90
Dielectric Strength - {1/8" (3.18 mm) thick}
60,000 VPM
Water Absorption - 1% max.
Overlaps Edges

Bolt, Nuts and Washers

T-304 Stainless Steel - 5/16" - 18" X 2" bolts,
5/16" hex nuts
5/16" washers SAE 2330

Runners

1" or 2" wide glass filled polymer

Sizes of Runners available:

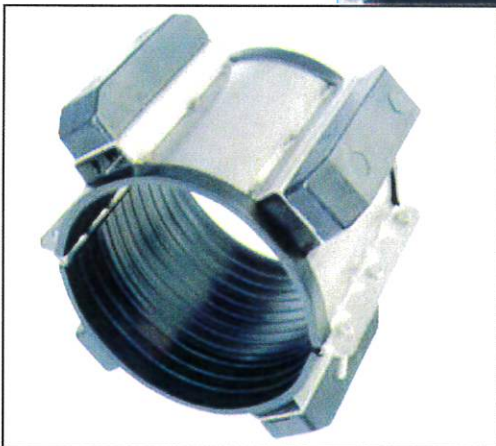
Length - 7" & 11" (17.8, 27.9 cm)
Effective Heights for 7" Length - 1", 1 1/2", 2", 2 1/2",
3", 3 1/2", 4", 4 1/2", 5, 5 1/2" and 6"
Effective Heights for 11" Length - 1", 1 1/2"

Material Specifications:

Rockwell Hardness (M) - (ASTM D785) - 101
Tensile Strength - (ASTM D638) - 27,000 psi
Flexural Strength - (ASTM D790) - 40,000 psi
Deflection Temp. @ 264 psi - (ASTM D648) - 478° F (248° C)
Deformation Under Load @ 72° F (22° C) - 3500 lb.
Load, - (ASTM D648) - 1%

Welding

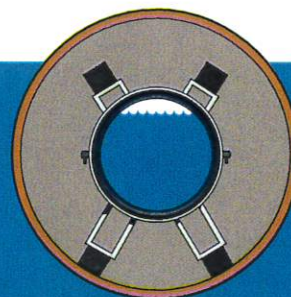
All risers are welded to the band by MIG welding. Stainless steel welds are fully passivated.



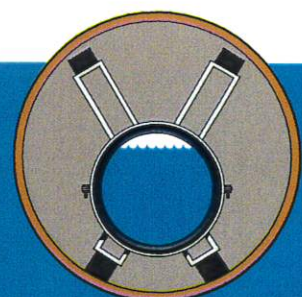
STAINLESS STEEL BAND SPACERS & INSULATORS (Model SSI)

Heavy duty two-piece stainless steel bands serve practically every piping application and should be utilized inside casing that is 2 or 3 sizes larger than the carrier pipe. APS stainless steel band casing spacers are available in two models: the SSI8 model, which is 8" in width and recommended for carrier pipe 4" to 24"; and the SSI12 model, which is 12" in width and is recommended for pipe 26" to 120" and larger. Stainless steel band spacers are recommended for every 6 to 8 feet of pipeline.

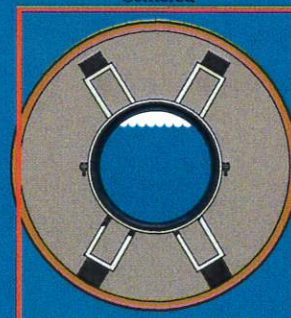
For larger diameter pipelines and bell and spigot applications, APS Spacers are available with risers to provide an extra margin of safety. The bands are constructed of 14 gauge stainless steel with a 0.090" EPDM liner. Stainless steel spacers are available in grade 304.



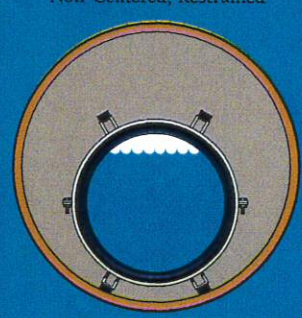
Centered



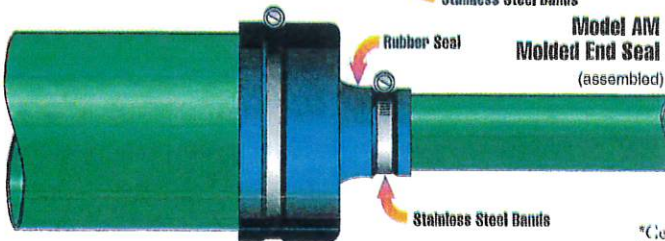
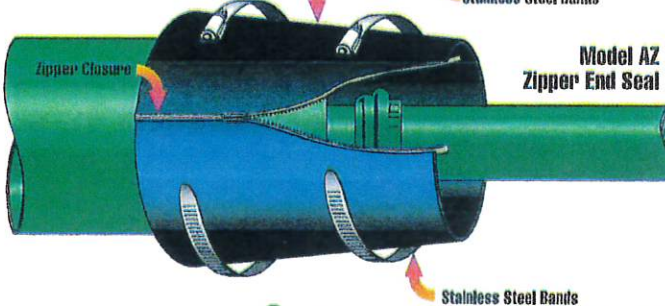
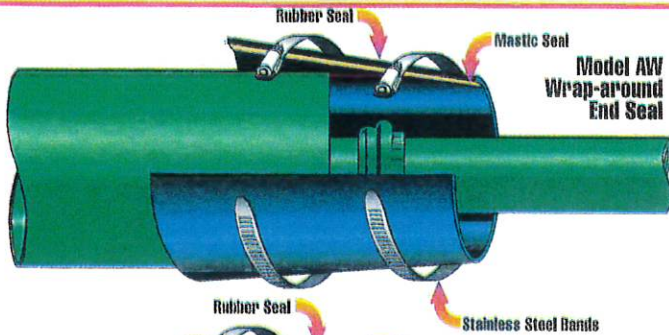
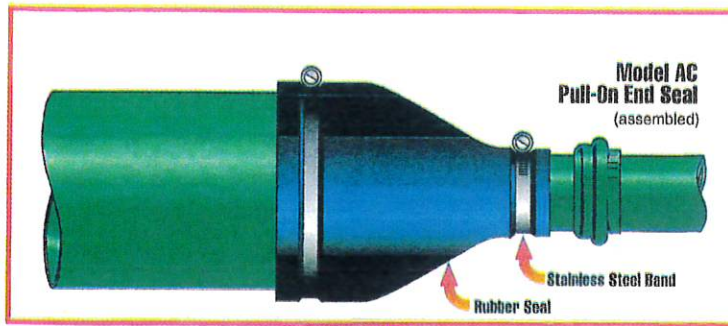
Non-Centered, Restrained



Centered & Restrained



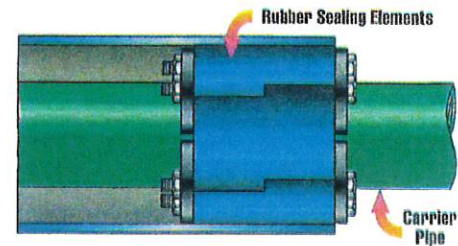
Clear Bell



ISO-9001 Certified

END SEALS

Innerlynx Model End Seal

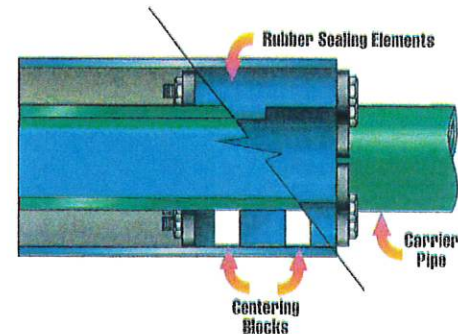
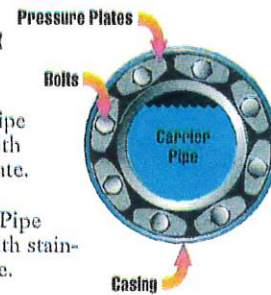


TYPES OF INNERLYNX END SEALS

IL-C - Standard pipe INNERLYNX with insulating type plate.

IL-S304/S316 - Pipe INNERLYNX with stainless steel hardware.

IL-CB - Pipe INNERLYNX with centering block feature.*



*Centering Blocks are plastic reinforcements that assure a penetrating pipe will stay "centered" within its casing and adds extra support against heavy loads from back fill.

APS manufactures full conical shaped end seals in the seamless pull-on, wrap-around, molded and zipper styles. All four are made of 1/8" thick synthetic rubber assuring excellent chemical resistance and resiliency and can accommodate any combination of pipe sizes. These products out perform the costly and labor intensive brick and mortar method of sealing casing ends. While soil stress and pipe movement cause mortar to crack, the APS End Seals move with the pipe, insuring the integrity of your seal.

The model AC and AM end seals can easily be installed at the time of construction. Models AC, AW and AZ can be produced in concentric (for centered carrier pipes) and eccentric (for non-centered pipes). The model AW wrap-around end seals are designed to facilitate installation when the carrier line has already been installed and the pull is complete. Simply wrap around the carrier and casing, remove the release liner from the two pressure sensitive butyl mastic strips and press

the adhesive strips down to form a seal.

Model AZ, zipper type end seal, is designed for use on new construction and on existing casings that require modifications or extension. Stainless steel zippers are pressure molded to the rubber and feature a protective rubber strip attached to the seal under the zipper to prevent damage or abrasion to the pipe. They are also easy to install. The seal wraps around the casing end and carrier pipe and zips shut to provide a tight seal while still allowing for pipe movement.

All four types of APS End Seals are secured with T-304 stainless steel banding straps with a 100% non-magnetic worm gear mechanism to insure the integrity of the clamp. Only a screwdriver is needed for installation.

In addition, Innerlynx forms a mechanical seal between pipelines and casing. Innerlynx forms a hydrostatic seal and electrically insulate the carrier pipe from the casing. Innerlynx can be installed by one person and requires no special tools.