

PROCO

The Expansion Joint and Check Valve People



PIPE PENETRATION SEALS PEN•SEAL

Pipe Penetration Seals

PROCO's PEN-SEAL Pipe Penetration Seals have been designed to assist in achieving an efficient, low-cost mechanical seal between any Electrical Conduit, Concrete, Cast Iron, Steel, Copper, or PVC/CPVC pipes passing through Walls, Floors, Tanks, Pipeline Casings, and Vaults. The PEN-SEAL, while being used to seal the gap in electrical conduit lines, will also act as an insulator.

The PEN-SEAL has been designed to provide a gas and watertight seal. All sizes have been tested to withstand a hydrostatic seal up to 20 psig or 40 feet of head pressure in addition to withstanding temperatures up to 250° F.

PEN-SEAL's standard elastomer material is EPDM, which is suitable for temperatures ranging from -40° F to 250° F. EPDM is suitable for most applications in water—above ground and direct burial—and will provide the electrical insulation where cathodic protection is required. Silicone material is also available for higher temperature applications up to 400° F.

Where the PEN-SEAL may come in contact with Hydrocarbons, Oil, Gas, Jet Fuel, and miscellaneous solvents, a Nitrile material is available with temperatures ranging from -40° F to 210° F.

The PEN-SEAL utilizes glass-reinforced plastic for the pressure plates and all hardware is manufactured from Steel Zinc Dichromate. For corrosion resistance, 316 Stainless Steel hardware is also available.

Various applications for the PROCO PEN-SEAL:

- Wall Sleeves
- Floor Sleeves
- Interior Piping
- Noise Dampener
- Electrical Contractors
- Precast Concrete
- Mining
- Marine
- Water & Wastewater
- HVAC
- Valve Pits
- Offshore Oil Platforms
- Telecommunications
- Dual Containment Seal
- Underground Steel Tanks
- Coal Preparation Plants
- Pulp & Paper
- Power Generation



Sizing Tables

Sizing for Standard Weight Steel, PVC and CPVC Pipe

Table 1		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
0.5	0.840	2.000	2.067	PS-200	4	2.000	PS-200	4
0.75	1.050	2.500	2.469	PS-275	6	2.500	PS-275	6
1	1.315	2.500	2.469	PS-200	5	3.000	PS-315	4
1.25	1.660	3.000	3.068	PS-275	8	3.000	PS-275	8
1.5	1.900	3.000	3.068	PS-200	7	3.500	PS-300	5
2	2.375	3.500	3.548	PS-200	8	4.000	PS-300	6
2.5	2.875	4.000	4.026	PS-200	9	4.000	PS-200	9
3	3.500	5.000	5.047	PS-300	8	5.000	PS-300	8
3.5	4.000	6.000	6.065	PS-315	10	6.000	PS-315	10
4	4.500	6.000	6.065	PS-300	10	6.000	PS-300	10
5	5.563	8.000	7.981	PS-340	13	8.000	PS-340	13
6	6.625	10.000	10.020	PS-475	10	10.000	PS-475	10
8	8.625	12.000	12.000	PS-475	12	12.000	PS-475	12
10	10.750	14.000	13.250	PS-425	10	14.000	PS-475	14
12	12.750	16.000	15.250	PS-425	12	16.000	PS-475	17
14	14.000	18.000	17.250	PS-475	18	18.000	PS-575	16
16	16.000	20.000	19.250	PS-475	21	20.000	PS-575	18
18	18.000	22.000	21.250	PS-475	23	22.000	PS-575	20
20	20.000	24.000	23.250	PS-475	25	24.000	PS-575	22
22	22.000	26.000	25.250	PS-475	28	26.000	PS-575	24
24	24.000	28.000	27.250	PS-475	30	28.000	PS-575	26
26	26.000	30.000	29.250	PS-475	33	30.000	PS-575	28
28	28.000	32.000	31.250	PS-475	35	32.000	PS-575	30
30	30.000	34.000	33.250	PS-475	37	34.000	PS-575	32
32	32.000	36.000	35.250	PS-475	40	36.000	PS-575	34
34	34.000	40.000	39.250	PS-500	29	38.000	PS-575	36
36	36.000	42.000	41.250	PS-500	31	40.000	PS-575	38
42	42.000	48.000	47.250	PS-500	36	46.000	PS-575	44
48	48.000	54.000	53.250	PS-500	41	52.000	PS-575	50

- Notes:**
1. Minimum recommended sleeve length or wall thickness is 4" for PEN-SEAL Model PS-325 and smaller and 6" for Models PS-400 and larger.
 2. PEN-SEAL sets are sold in belts of ten (10) links.

Sizing Tables

Sizing for Ductile Iron Pipe (AWWA-Type)

Table 2		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
2	2.500	3.500	3.548	PS-200	8	4.000	PS-300	6
2.25	2.750	5.000	5.047	PS-340	7	5.000	PS-340	7
3	3.960	6.000	6.065	PS-315	10	6.000	PS-315	10
4	4.800	8.000	7.981	PS-410	7	8.000	PS-410	7
6	6.900	12.000	10.020	PS-410	10	10.000	PS-410	10
8	9.050	12.000	12.000	PS-400	9	12.000	PS-400	9
10	11.100	14.000	13.250	PS-340	24	14.000	PS-400	10
12	13.200	16.000	15.250	PS-325	14	16.000	PS-360	21
14	15.300	18.000	17.250	PS-325	16	18.000	PS-360	24
16	17.400	20.000	19.250	PS-315	39	20.000	PS-360	27
18	19.500	24.000	23.250	PS-475	25	24.000	PS-525	17
20	21.600	26.000	25.250	PS-475	28	26.000	PS-525	19
24	25.800	30.000	29.250	PS-475	32	29.000	PS-410	33
30	32.000	36.000	35.250	PS-475	40	35.000	PS-400	29
36	38.300	42.000	41.250	PS-400	34	41.000	PS-360	59
42	44.500	50.000	49.250	PS-500	38	48.000	PS-475	55
48	50.800	54.000	53.250	PS-425	45	54.000	PS-410	63

Sizing for Copper Tubing

Table 3		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
0.5	0.625	2.000	2.067	PS-275	4	2.000	PS-275	4
0.75	0.875	2.000	2.067	PS-200	4	2.000	PS-200	4
1	1.125	2.500	2.469	PS-275	6	3.000	PS-315	4
1.25	1.375	2.500	2.469	PS-200	5	3.000	PS-300	4
1.5	1.625	3.000	3.068	PS-275	8	3.000	PS-275	8
2	2.125	3.500	3.548	PS-300	5	3.500	PS-275	9
2.5	2.625	4.000	4.026	PS-275	11	4.000	PS-275	11
3	3.125	5.000	5.047	PS-315	8	5.000	PS-315	8
4	4.125	6.000	6.065	PS-315	10	6.000	PS-315	10
6	6.125	8.000	7.981	PS-315	15	8.000	PS-315	15
8	8.125	10.000	10.020	PS-325	9	12.000	PS-575	10
10	10.125	14.000	13.250	PS-410	14	14.000	PS-575	12
12	12.125	16.000	15.250	PS-410	16	16.000	PS-575	14

- Notes:**
1. Minimum recommended sleeve length or wall thickness is 4" for PEN-SEAL Model PS-325 and smaller and 6" for Models PS-400 and larger.
 2. PEN-SEAL sets are sold in belts of ten (10) links.

Sizing for Cast Iron Soil Pipe (Extra Heavy)

Table 4		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
2	2.380	3.500	3.548	PS-200	8	4.000	PS-300	6
3	3.500	5.000	5.047	PS-300	8	5.000	PS-300	8
4	4.500	6.000	6.065	PS-300	10	6.000	PS-300	10
5	5.500	8.000	7.981	PS-340	13	8.000	PS-340	13
6	6.500	10.000	10.020	PS-475	9	10.000	PS-475	9
8	8.620	12.000	12.000	PS-475	12	12.000	PS-475	12
10	10.750	14.000	13.250	PS-425	10	14.000	PS-475	14
12	12.750	16.000	15.250	PS-425	12	16.000	PS-475	17
15	15.880	20.000	19.250	PS-475	21	18.000	PS-340	33

Sizing for Cast Iron Soil Pipe (Service Weight)

Table 5		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
2	2.300	4.000	4.026	PS-315	6	4.000	PS-315	6
3	3.300	5.000	5.047	PS-315	9	5.000	PS-315	8
4	4.300	6.000	6.065	PS-315	11	6.000	PS-315	11
5	5.300	8.000	7.981	PS-360	10	8.000	PS-360	10
6	6.300	8.000	7.981	PS-315	15	8.000	PS-315	15
8	8.380	12.000	12.000	PS-475	12	12.000	PS-475	12
10	10.500	14.000	13.250	PS-360	17	14.000	PS-475	14
12	12.500	16.000	15.250	PS-360	20	16.000	PS-475	17
15	15.620	20.000	19.250	PS-475	20	18.000	PS-425	14

Sizing for Electrical Metallic Tubing (EMT)

Table 6		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
0.5	0.706	2.000	2.067	PS-275	4	2.000	PS-275	4
0.75	0.922	2.000	2.067	PS-200	4	2.000	PS-200	4
1	1.163	2.500	2.469	PS-275	6	3.000	PS-315	4
1.25	1.510	3.000	3.068	PS-275	7	3.000	PS-275	7
1.5	1.740	3.500	3.548	PS-315	5	3.500	PS-315	5
2	2.197	3.500	3.548	PS-275	10	4.000	PS-315	6
2.5	2.875	4.000	4.026	PS-200	9	4.000	PS-200	9
3	3.500	5.000	5.047	PS-300	8	5.000	PS-300	8
4	4.500	6.000	6.065	PS-300	10	6.000	PS-300	10

- Notes:**
1. Minimum recommended sleeve length or wall thickness is 4" for PEN-SEAL Model PS-325 and smaller and 6" for Models PS-400 and larger.
 2. PEN-SEAL sets are sold in belts of ten (10) links.

Sizing Tables

Sizing for Intermediate Metal Conduit (IMC)

Table 7		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
0.5	0.815	2.000	2.067	PS-200	4	2.000	PS-200	4
0.75	1.029	2.000	2.067	PS-200	4	2.500	PS-275	6
1	1.290	2.500	2.469	PS-275	6	3.000	PS-300	4
1.25	1.638	3.500	3.548	PS-315	5	3.000	PS-275	7
1.5	1.883	3.500	3.548	PS-300	5	3.500	PS-300	5
2	2.360	4.000	4.026	PS-300	6	4.000	PS-300	6
2.5	2.857	4.000	4.026	PS-200	9	4.000	PS-200	9
3	3.476	5.000	5.047	PS-300	8	5.000	PS-300	8
3.5	3.971	6.000	6.065	PS-325	5	6.000	PS-325	5
4	4.466	6.000	6.065	PS-300	10	6.000	PS-300	10

Sizing for Rigid Steel Conduit (RSC)

Table 8		Standard Weight Steel or PVC Pipe Sleeve ¹				Cast or Core Bit Drilled Hole ¹		
NOMINAL PIPE SIZE (Inches)	ACTUAL PIPE O.D. (Inches)	SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS	HOLE I.D. (Inches)	PEN-SEAL PART NUMBER	REQUIRED NUMBER OF LINKS
0.5	0.840	2.000	2.067	PS-200	4	2.000	PS-200	4
0.75	1.050	2.500	2.469	PS-275	6	2.500	PS-275	6
1	1.315	2.500	2.469	PS-200	5	3.000	PS-300	4
1.25	1.660	3.500	3.548	PS-315	5	3.000	PS-275	7
1.5	1.900	3.500	3.548	PS-300	5	3.500	PS-200	5
2	2.375	4.000	4.026	PS-300	6	4.000	PS-300	6
2.5	2.875	4.000	4.026	PS-200	9	4.000	PS-200	9
3	3.500	5.000	5.047	PS-300	8	5.000	PS-300	8
3.5	4.000	6.000	6.065	PS-325	5	6.000	PS-325	5
4	4.500	6.000	6.065	PS-300	10	6.000	PS-300	10
5	5.563	8.000	7.981	PS-425	6	8.000	PS-425	6
6	6.625	8.000	7.981	PS-300	15	10.000	PS-475	10

- Notes:**
1. Minimum recommended sleeve length or wall thickness is 4" for PEN-SEAL Model PS-325 and smaller and 6" for Models PS-400 and larger.
 2. PEN-SEAL sets are sold in belts of ten (10) links.

Calculating PEN-SEAL Sizes

Use the following method if you cannot find the correct pipe size or wall sleeve from the Sizing Charts on pages 4 through 7.

Step 1 Calculate the Annular Space

The Annular Space is the space between the Outside Diameter of the pipe and the Inside Diameter of the Wall Sleeve or opening. This is calculated by using the following formula:

$$\text{Annular Space} = \frac{\text{Wall Opening I.D.} - \text{Pipe O.D.}}{2}$$

Step 2 Selecting the PEN-SEAL Model

Select the proper PEN-SEAL model from the Dimensional Chart (shown below) by comparing the Annular Space to the Neutral State and Expanded State Thickness. The Annular Space calculated must fall between the Neutral State Thickness and the Expanded State Thickness.

Step 3 Calculate the Number of Links Required

First, calculate the Bolt Circle:

$$\text{Bolt Circle} = \frac{\text{Wall Opening I.D.} + \text{Pipe O.D.}}{2}$$

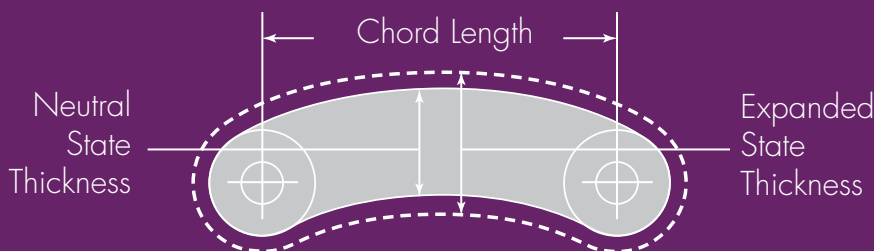
Then, determine the number of links required by using the following formula. Chord Length is found in the PEN-SEAL Dimensional Chart shown below.

$$\text{Number of Links} = \frac{\text{Bolt Circle} \times 3.14 (p)}{\text{Chord Length}}$$

Finally, the number of links determined must be rounded down to the next whole number.

Please Note: **PEN-SEAL** sets are sold in belts of ten (10) links.

**PEN-SEAL
Dimensional Chart**



SEALING RANGE			
SIZE	NEUTRAL STATE THICKNESS (Inches)	EXPANDED STATE THICKNESS (Inches)	CHORD LENGTH (Inches)
200	0.500	0.620	1.125
275	0.620	0.800	0.910
300	0.710	0.920	1.510
315	0.820	1.100	1.470
325	0.940	1.140	3.100
340	1.050	1.330	1.570
360	1.290	1.650	2.106
400	1.430	1.870	3.625
410	1.480	1.910	2.600
425	1.130	1.430	3.625
475	1.620	2.080	2.625
500	2.370	2.810	3.860
525	2.180	2.580	3.860
575	1.880	2.350	3.100
600	3.200	4.000	6.000

Materials Guide

TYPE	SEAL MATERIAL	PRESSURE PLATES	BOLTS & NUTS	TEMPERATURE RANGE (°F)	APPLICATIONS*
E	EPDM Black	GLASS REINFORCED PLASTIC	STEEL Zinc Dichromate	-40° to +250°	Suitable for most applications in water, above ground and direct burial. Provides electrical insulation where cathodic protection is required.
ES	EPDM Black	GLASS REINFORCED PLASTIC	STAINLESS STEEL (316)	-40° to +250°	Suitable for environments where the corrosion resistance of stainless steel hardware is required.
P	NITRILE	GLASS REINFORCED PLASTIC	STEEL Zinc Dichromate	-40° to +210°	Resistant to most hydrocarbons, oil, gas, jet fuel, and many solvents.
PS	NITRILE	GLASS REINFORCED PLASTIC	STAINLESS STEEL (316)	-40° to +210°	Same as above, but with corrosion resistance of stainless steel hardware.
K	SILICONE	STEEL Zinc Dichromate	STEEL Zinc Dichromate	-40° to +400°	High temperature applications.

*For more details and complete chemical compatibility contact PROCO.

Wall Sleeves

Standard Weight Steel Sleeves

Standard steel wall sleeves are positioned in the wall before the concrete is poured. Wall sleeves offer a cleaner installation for every engineered piping system.

SLEEVE NOMINAL PIPE SIZE (Inches)	SLEEVE ACTUAL I.D. (Inches)	STANDARD SLEEVE LENGTH (Inches)	STANDARD WATERSTOP HEIGHT (Inches)	SLEEVE WEIGHT (lbs)
				STEEL
2.00	2.07	12.00	2.00	6.00
2.50	2.47	12.00	2.00	8.00
3.00	3.07	12.00	2.00	10.00
3.50	3.55	12.00	2.00	12.00
4.00	4.03	12.00	2.00	14.00
5.00	5.05	12.00	2.00	18.00
6.00	6.07	12.00	2.00	23.00
8.00	7.98	12.00	2.00	34.00
10.00	10.02	12.00	2.00	47.00
12.00	12.00	12.00	2.00	57.00
14.00	13.25	12.00	2.00	62.00
16.00	15.25	12.00	2.00	72.00
18.00	17.25	12.00	2.00	80.00
20.00	19.25	12.00	2.00	T.B.D.
22.00	21.25	12.00	2.00	T.B.D.
24.00	23.25	12.00	2.00	T.B.D.
26.00	25.25	12.00	2.00	T.B.D.
28.00	27.25	12.00	2.00	T.B.D.
30.00	29.25	12.00	2.00	T.B.D.
32.00	31.25	12.00	2.00	T.B.D.
34.00	33.25	12.00	2.00	T.B.D.
36.00	35.25	12.00	2.00	T.B.D.
38.00	37.25	12.00	2.00	T.B.D.
40.00	39.25	12.00	2.00	T.B.D.
42.00	41.25	12.00	2.00	T.B.D.
44.00	43.25	12.00	2.00	T.B.D.
46.00	45.25	12.00	2.00	T.B.D.
48.00	47.25	12.00	2.00	T.B.D.
50.00	49.25	12.00	2.00	T.B.D.
52.00	51.25	12.00	2.00	T.B.D.
54.00	53.25	12.00	2.00	T.B.D.



Custom lengths and heights available upon request.

Easy Installation



1. Properly select the size of the PEN-SEAL required to seal the penetration using the Sizing Charts on pages 2 through 7.



2. Wrap the PEN-SEAL around the pipe and connect the ends.



3. Slide the PEN-SEAL into position.



4. Tighten each bolt on each pressure plate about 2–3 turns, going around the pipe (do not cross-tighten bolts) until a proper seal is formed. A socket or offset wrench for 5/16, 1/2, 3/8, 9/16, 3/4, or 1-13/16" bolts will handle all installations.

Order Form / RFQ

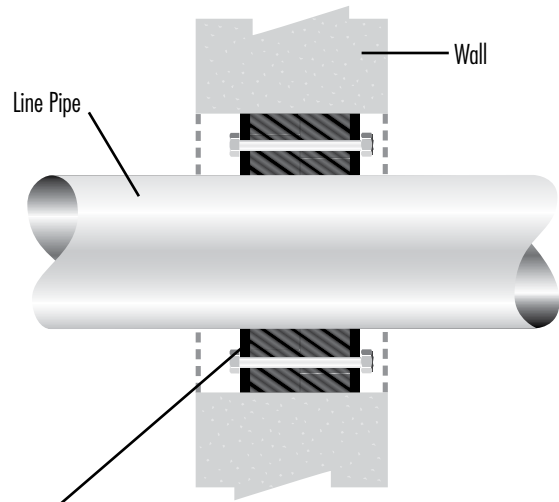
PEN-SEAL / MODEL PS

The PROCO PRODUCTS PEN-SEAL forms a mechanical rubber seal between pipes going through walls, floors, vaults, tanks, and pipeline casings and makes a watertight seal between a pipe and a wall hole. It can also be used to seal a gap between an inner pipe and an outer pipe sleeve or pipeline casing. The PENSEAL also will seal the gap between the electrical conduit and the outer conduit, or between the electrical conduit and the wall hole it passes through.

PROCO PRODUCTS PEN-SEAL is designed to form a hydrostatic seal of up to 20 psig and up to 40 feet of head. The PENSEAL, in addition to its sealing properties, helps absorb vibrations, shocks, and sound waves. It also insulates the inner pipe from all other outer structures, including outer pipe sleeves, pipeline casings, walls and tanks.

The PEN-SEAL is made from synthetic rubber with heavyduty plastic pressure plates, which are resistant to sunlight and ozone. All bolts and nuts are plated with an anti-corrosive coating. Stainless steel nuts and bolts are also available.

- IPS** = Schedule 40 or Standard Weight Pipe
Plastic Pipe
API Pipe
Electrical Conduit
Any pipe with same O.D.
- CT** = Copper Tubing
Any pipe with same O.D.
- EMT** = Electrical Metallic Tubing
- IMC** = Intermediate Metal Conduit
- RSC** = Rigid Steel Conduit
- DI** = Ductile Iron Pipe
Plastic Pipe
Any pipe with same O.D.
- CI (EH)** = Cast Iron (Extra Heavy)
- CI (SW)** = Cast Iron (Service Weight)



PEN-SEAL Wall Penetration Seal by PROCO PRODUCTS, INC.

To use as Order Form or Request For Quotation (RFQ), photocopy this page and fax your information to PROCO PRODUCTS, INC. at **(209) 943-0242**.

QTY.	NOMINAL PIPE SIZE (Inches)	TYPE OF PIPE	PIPE O.D.	INNER PIPE THROUGH A CORE DRILLED HOLE			INNER PIPE THROUGH A WALL SLEEVE			NOTES
				HOLE DIA. (Inches)	PEN-SEAL MODEL NUMBER	REQUIRED NUMBER OF LINKS	SLEEVE I.D. (Inches)	PEN-SEAL MODEL NUMBER	REQUIRED NUMBER OF LINKS	

CUSTOMER _____

PROJECT _____

ENGINEER _____

ARCHITECT _____

ORDER NO. _____

PEN-SEAL / MODEL PS

Terms and Conditions

1. All quotations are subject to approval, acceptance and correction by Proco Products, Inc. Any errors in quotations resulting in orders will be corrected and re-submitted to the customer for their acceptance or refusal.

No prices may be made up from information other than that shown in tables.

2. All prices are F.O.B. Stockton, CA and are quoted exclusive of any consumables, factory hydro testing, taxes, handling and installation.

Terms: Net 30 days from date of invoice.

3. Cancellation or alteration of an order or return of any product by buyer may not be made without advance written consent of Proco Products, Inc. and shall be subjected to a cancellation charge.

A minimum restocking charge shall be placed on any returned goods of stocked items. Fabricated items are not returnable.

4. We will not be responsible for delays in shipping due to conditions beyond our control such as strikes, fires, or accidents.

5. Any claims for shortages or damaged products must be made in writing within 10 days after receipt of shipment.

6. Prices subject to change without notice.

Design and Dimensional Specifications

The products illustrated reflect the design characteristics at time of printing.

Proco Products, Inc. reserves the right to change dimensions, materials, or methods of construction without notice. Please contact the factory for certified prints (exact dimensions) when necessary.

Limited Warranty

All products are warranted to be free of defects in material and workmanship for a period of one year from the date of shipment, subject to the limitations below.

If purchaser believes a product is defective the purchaser shall: (a) Notify the manufacturer, state the alleged defect and request permission to return the product. (b) If permission given, return the product with transportation prepaid. If the product is accepted for return and found to be defective, the manufacturer will, at its discretion, either repair or replace the product F.O.B. factory, within 60 days of receipt, or refund the purchase price. Other than to repair, replace or refund as described above, purchaser agrees that manufacturer shall not be liable for any

loss, costs, expenses or damages of any kind arising out of the product, its use, installation or replacement, labeling, instructions, information or technical data of any kind, description of product or use, sampling or model, warnings or lack of any of the foregoing. NO OTHER WARRANTIES, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ARE MADE OR AUTHORIZED. NO AFFIRMATION OF FACT, PROMISE, DESCRIPTION OF PRODUCT OF USE OR SAMPLE OR MODEL SHALL CREATE ANY WARRANTY FROM THE MANUFACTURER, UNLESS SIGNED BY THE PRESIDENT OF MANUFACTURER. These products are not manufactured, sold or intended for personal, family or household purposes.

PROCO
PROCO PRODUCTS, INC.

*The Expansion Joint
and
Check Valve People*

Toll-Free Phone: (800) 344-3246

Facsimile: (209) 943-0242

(209) 943-6088

email: sales@procoproducts.com

website: <http://www.procoproducts.com>

2431 North Wigwam Dr. (95205)
P.O. Box 590 • Stockton, CA
95201-0590 • USA

NATIONWIDE AND CANADA

INTERNATIONAL



REPRESENTED BY: