



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.