

Style "700" POSI-HOLD® Couplings and Fittings

PROVIDE SEALING AND RESTRAINING CONNECTIONS FOR STEEL AND P.E. PIPE

The Dresser POSI-HOLD® (boltless) pipe joining system is a unique concept for providing seal and restraining pipe connections for any combination of steel and P.E. pipe. This advanced design for pipe joining features a fully independent seal and restraining capability that eliminates the need for expensive welding or heat fusion equipment. Plus, there is no need for specially trained field personnel.

This boltless design cancels the mechanical assembly of external fasteners that provide the backbone in both sealing and restraint of bolted products. Costly trench excavation is minimized by negating the need for large bell-holes required to uniformly tighten bolted products in the ditch. A portable hydraulic activating pump may be

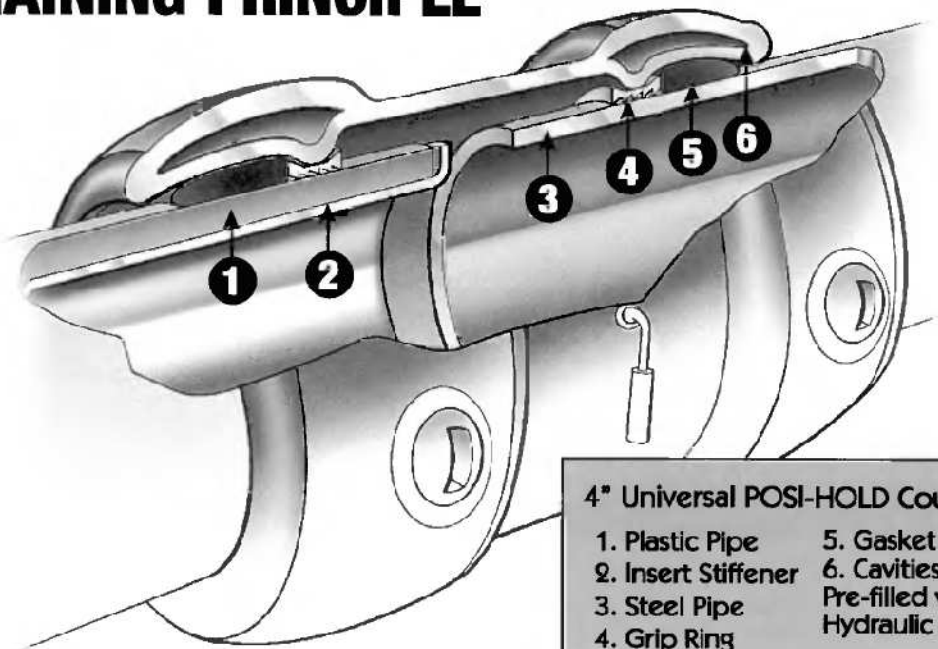
operated from above the ditch to make each joint assembly in the matter of only a few short minutes. Substantial savings in labor and construction are realized with the use of POSI-HOLD couplings by eliminating the need for extra excavation and added joint assembly time.

Universal POSI-HOLD Couplings and Fittings for Steel and P.E. Pipe (3", 4", 6", 8" sizes)

The Universal POSI-HOLD coupling will join any combination of steel and P.E. pipe - P.E. to P.E., P.E. to steel, and steel to steel.

The Universal POSI-HOLD coupling conforms to all performance requirements for P.E. pipe joints outlined in D.O.T. 192.283b. Insert stiffeners

STYLE "700" POSI-HOLD SEALING AND RESTRAINING PRINCIPLE



4" Universal POSI-HOLD Coupling

- | | |
|---------------------|---|
| 1. Plastic Pipe | 5. Gasket |
| 2. Insert Stiffener | 6. Cavities -
Pre-filled with
Hydraulic Fluid |
| 3. Steel Pipe | |
| 4. Grip Ring | |

designed and recommended for use in couplings for P.E. pipe are also available in all SDR sizes commonly used in gas piping systems.

On steel pipe connections, electrical bonding between pipe and coupling is achieved through the steel grip ring which is wedged between pipe and coupling I.D.

Standard Conductive POSI-HOLD Couplings and Fittings for Steel Pipe (3", 4", 6" sizes)

Standard, conductive POSI-HOLD couplings provide a complete system for steel pipe installation. Special brass wires embedded in the AMOREX® gaskets contact the pipe surface and coupling body, providing excellent electrical conductivity for cathodic protection.

POSI-HOLD Insulating Couplings and Fittings for Steel Pipe (3", 4", 6" sizes)

Dresser POSI-HOLD insulating couplings for steel pipe provide insulated joints for tie-ins, new main constructions, and for insulation of existing mains.



A stock of POSI-HOLD fittings gives construction crews maximum flexibility in meeting field conditions. Pipe installation can often continue in spite of unexpected obstructions, or close working space, and without waiting for welders or for preparation of specially fabricated bends, etc.

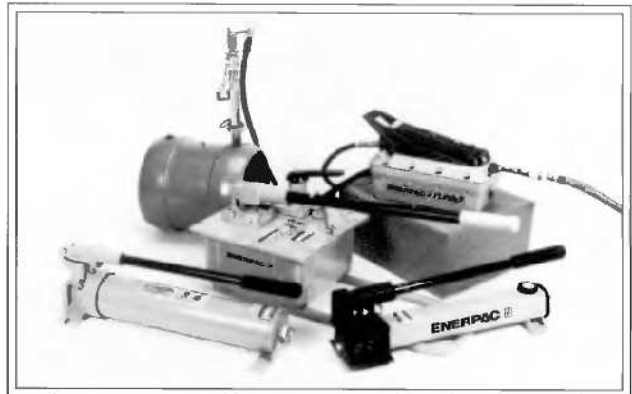
NOTE: All POSI-HOLD products are supplied with the Dresser AL-CLAD® epoxy coating, plus a connector for easy attachment of an anode or tracer wire if monitoring is required.

HOW THE POSI-HOLD COUPLING WORKS

In 3" through 8" POSI-HOLD sizes, hydraulic fluid placed in cavities inside the coupling at the factory is pressurized to force the inner shell of the coupling against the gaskets to form a permanent seal and grip. A pump is used to apply hydraulic pressure through a hose and "bayonet" which locks into ports in the coupling. After pressurizing, the fluid is left in the cavities of the coupling, but not under pressure.

The sealing principle for the Universal POSI-HOLD is the same as the standard design. In the Universal style, however, the unique split metal grip ring is also compressed into a firm grip on the pipe. Positioned under the lowest contour of the coupling's inner shell, it is shaped with a land (or straight section) in the center and tapers upward to both outer edges. This land allows for pipe movement before the metal ring becomes completely wedged and locked to restrain pipe end against pull out. With this wedging, the stronger the pulling force, the greater the gripping action. Since the lock ring is independent of the gasket's sealing mechanism, the product is rated

for a maximum seal working pressure of 150 psi and a maximum rated test pressure of 225 psi. The maximum rated pull-out resistance is 13,000 lbs. of draw-bar pull on 3", 14,000 on 4", 26,000 on 6", and 38,000 on 8". On P. E. pipe, the restraint achieved meets or exceeds D.O.T. 192.283(b).



Dresser offers a wide variety of portable pumps to facilitate the installation of the hydraulic coupling. A choice of economical hand-activated or air-operated models provides an easy means of installing the POSI-HOLD system.

SPECIFICATIONS

Maximum Deflection: (After installation)

Straight Couplings - 4 degrees for 3", 4", 6" and 8" fittings. While it is recommended that fittings be aligned square with pipe at time of installation, the same deflection can be accommodated. For line caps or single end fittings, one half of this value is recommended.

Total Expansion/Contraction:

Straight Couplings - 3/8" per joint for 3", 4", 6" and 8" fittings. One half of these values for gaskets.

Coating

Dresser AL-CLAD coating is standard for all couplings and fittings.

Minimum Steel Pipe Wall

.188" for 3", 4", 6" and 8" couplings and fittings. For recommendations on wall thicknesses less than noted, contact the Dresser Engineering Department.

Hydraulic Fluid

All couplings and fittings are factory filled with a special material formulated to transmit required hydraulic pressure uniformly at temperatures down to -20 degrees F. It contains a bactericide to inhibit growth of micro-organisms. Field pressurizing requires approximately the materials listed below.

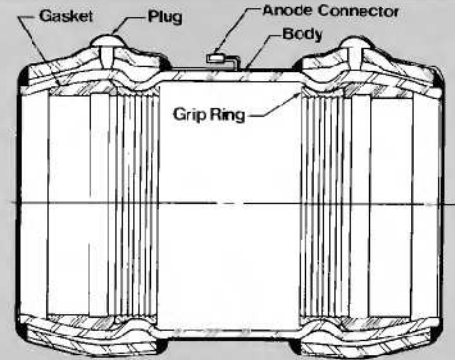
SIZE	GREASE	LIQUID
3"	0.30 Lbs.	.035 Gal.
4"	0.35 Lbs.	.048 Gal.
6"	0.48 Lbs.	.067 Gal.
8"	0.66 Lbs.	.093 Gal.

Materials

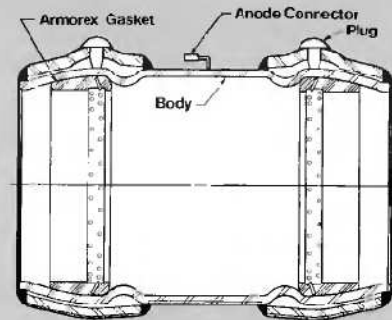
(Fittings) Weld fittings used in the fabrication of Dresser '700' fittings are seamless steel, long radius, schedule 40, ANSI-B 16.9, ASTM A-234 GRADE UPB.

RECOMMENDED PUMP GAUGE PRESSURES FOR INSTALLATION OF DRESSER 700 COUPLINGS AND FITTINGS		
SIZE	MINIMUM	MAXIMUM
3"	7000 PSI	8000 PSI (Target 7500 PSI)
4"	6000 PSI	7000 PSI (Target 6500 PSI)
6"	5000 PSI	6000 PSI (Target 5500 PSI)
8"	4500 PSI	5500 PSI (Target 5000 PSI)

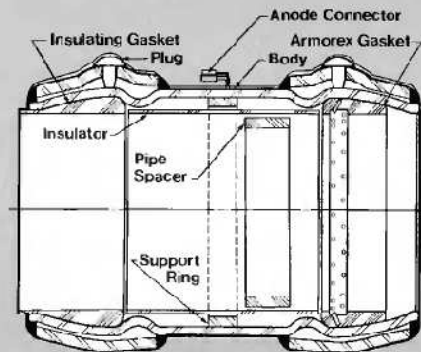
PIPE SIZE		DIMENSIONS	
Nominal Size (ID)	Outside Diameter (OD)	Body Outside Diameter	Body Length
3"	3.500	5-1/2	9
4"	4.500	6-3/4	9
6"	6.625	8-7/8	9
8"	8.625	10-3/4	9



3", 4", 6", 8" Universal POSI-HOLD



3", 4", 6" Standard Conductive POSI-HOLD



3", 4", 6" Insulating POSI-HOLD

⚠ WARNING

P.E. pipe is NOT to be used in standard Conductive or Insulating POSI-HOLD couplings. To do so could result in pipe pullout and escaping gas that could ignite and cause property damage, serious injury or death.

⚠ WARNING

For UNIVERSAL POSI-HOLD COUPLINGS Only! When P.E. pipe is used, the proper SDR Dresser insert MUST be used in each P. E. pipe end. Improper insert could result in escaping gas that could ignite and cause property damage, serious injury or death.