

Style 700 Universal POSIHOLD

Boltless Hydraulic Couplings & Fittings for Natural Gas Piping Systems



Seal & Restraining Connections for any combination of Steel and PE Pipe!

- **100% Compliant to DOT 192.281(e) / ASTM F1948 Category 1**
- Quick, easy installation with minimal excavation
- UNIVERSAL DESIGN...One product joins Steel to Steel, Steel to PE or PE to PE
- Provides permanent, gas-tight joints
- Rated at 150 PSIG
- Positive electrical conductivity

Style 700

Universal POSI-HOLD™ Couplings & Fittings

Provides permanent
seal & restraining
connections on any
combination of Steel
and PE pipe!

Hydraulic sealing system saves time, money!

The Dresser Universal POSI-HOLD™ pipe joining system is a unique concept for providing seal and restraining pipe connections for any combination of steel and PE pipe. This boltless coupling features an advanced pipe joining design with fully independent seal and restraining capabilities that eliminate the need for expensive welding or heat fusion equipment. Plus, there is no need for specially trained field personnel.

The boltless design eliminates 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. Using a portable hydraulic pump, the joint assembly is made from above the ditch in the matter of only a few short minutes, thus substantial savings in labor, construction, excavation and joint assembly time are realized.

For any combination of Steel and PE Pipe Connections:

Universal POSI-HOLD couplings and fittings are available in 3", 4", 6" and 8" sizes and will join any combination of Steel and PE pipe - PE to PE, PE to Steel, and Steel to Steel. The Universal POSI-HOLD coupling conforms to all performance requirements for PE pipe joints outlined in DOT 192.281(e). Insert stiffeners designed and recommended for use in couplings for PE 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.

For cathodic protection, all POSI-HOLD couplings and fittings come with a connector for fast anode or lead wire connections, if required.

In addition to regular straight couplings, POSI-HOLD fittings can be supplied in a variety of line cap, ell and tee configurations providing construction crews maximum flexibility in meeting field demands. Plus, there's no need for field welders or preparation of specially fabricated tees and bends.



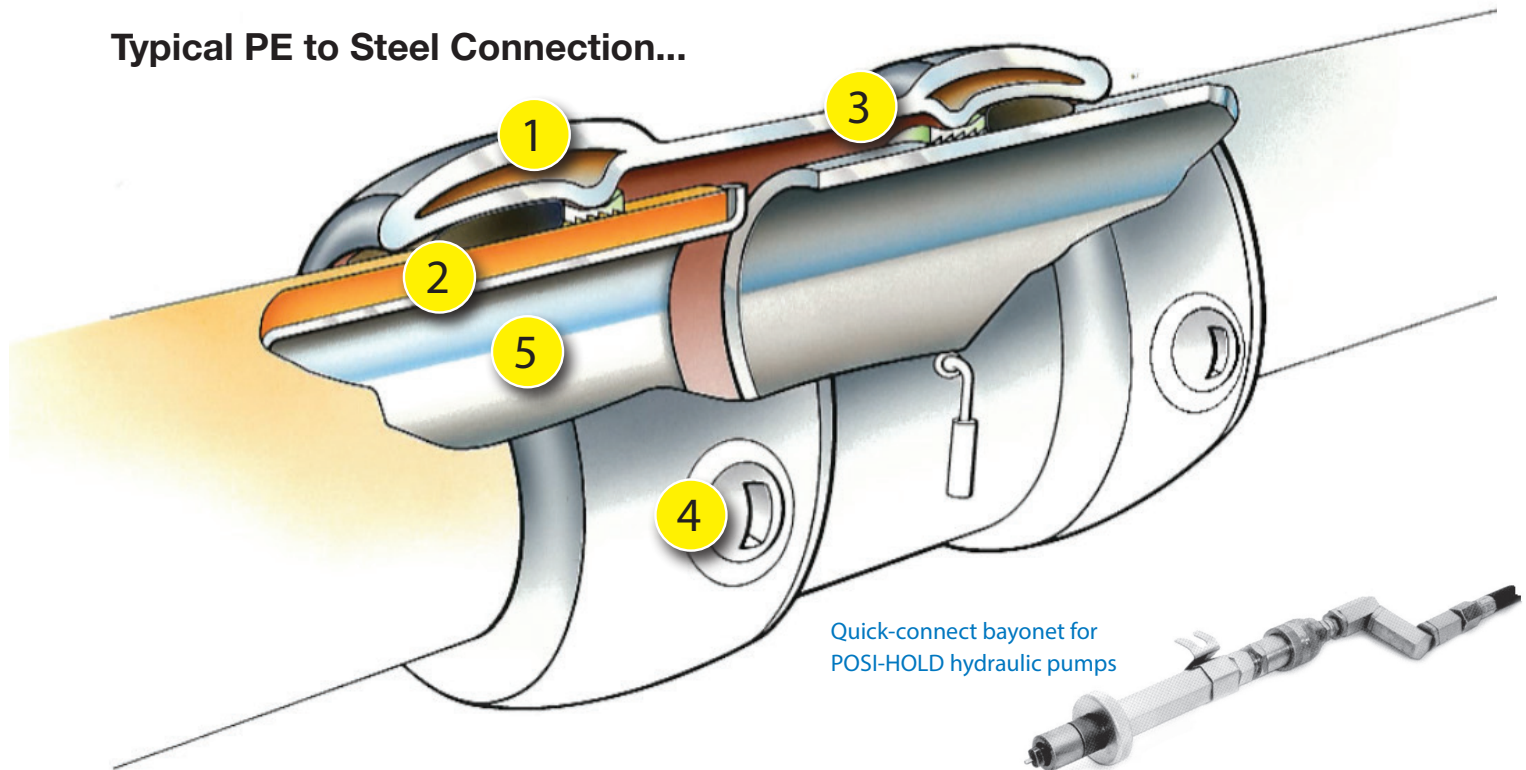
WARNING!

FOR PE PIPE CONNECTIONS WITH UNIVERSAL POSI-HOLD COUPLINGS!

When PE pipe is used, the proper
Dresser SDR insert **MUST** be used
in each PE pipe end.

Improper insert could result in escaping
line content that could ignite and cause
property damage, serious injury or death!

Typical PE to Steel Connection...



Installation of Dresser POSI-HOLD Couplings is Fast and Easy!

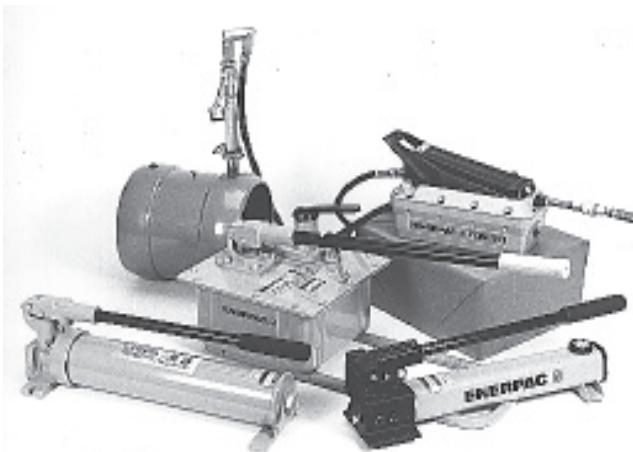
Style 700 couplings and fittings offer gas utilities a unique field-tested hydraulic pipe joining system. Hydraulic fluid is placed in annular cavities (1) inside the coupling at the factory. When this fluid is pressurized it forces the inner shell of the coupling against the gaskets (2) and grip rings (3) to form a permanent seal and gripping action against the pipe. A portable pump is used to apply hydraulic pressure through a hose and "bayonet" which locks into ports (4) in the coupling. After pressurizing, the plastic cavity plugs are reinserted, and the fluid is left in the cavities of the coupling, but not under pressure.

The sealing principle for the Universal POSI-HOLD includes a unique split metal grip ring design, plus the time-proven Dresser gasket sealing principle. Positioned under the lowest contour of the coupling's inner shell, the grip rings are shaped

with a land (or straight section) in the center and tapers upward to both outer edges. This land allows for pipe movement of the metal rings before hydraulic pressurization. When compressed, the grip rings and gaskets become completely wedged and locked to restrain pipe ends against pull-out*. With this wedging, the stronger the pulling force, the greater the gripping action. Since the grip ring is independent of the gasket's sealing mechanism, Style 700 fittings are rated for a maximum seal working pressure of 150 psi, and a maximum rated test pressure of 225 psi.

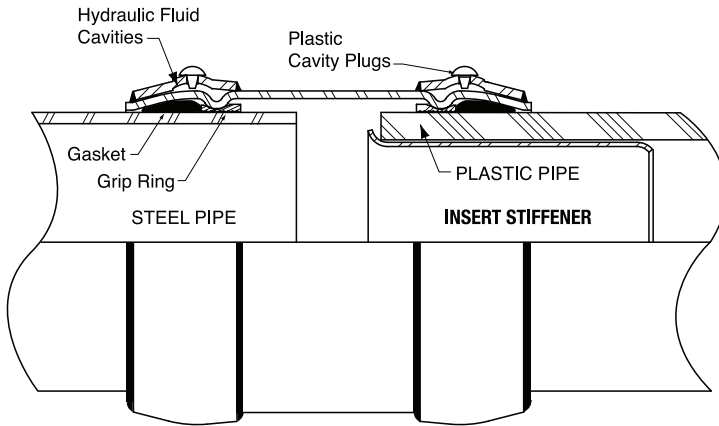
Insert stiffeners (5) for PE pipe in all SDR sizes commonly used in gas piping systems are furnished by Dresser. Dresser pipe inserts are color-coded to assist with the identification of proper SDR.

*See chart on back cover for the maximum rated pull-out resistance. On PE pipe, the restraint achieved meets or exceeds D.O.T. 192.281(e).



Dresser offers a portable pump with bayonet to facilitate the insertion of POSI-HOLD hydraulic couplings. As a choice, a variety of economical hand-activated or air-operated models are available for installing the POSI-HOLD coupling system. Consult factory for your particular installation requirements.

Specifications for 3, 4, 6 and 8" Style 700 POSI-HOLD Couplings



PIPE SIZE		BODY DIMENSIONS	
Nominal Size (IN)	Outside Diameter (OD)	Outside Diameter (IN)	Length (IN)
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	11-1/2

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. Field pressurizing requires approximate material quantities per end and pump pressure as listed in the charts 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.

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)

Materials of Construction

Weld fittings used in the fabrication of Dresser 700 fittings are seamless steel, long radius, schedule 40 to ANSI-B16.9, ASTM A-234 GRADE UPB.

Body: Low-Carbon Steel Coil/Tubing

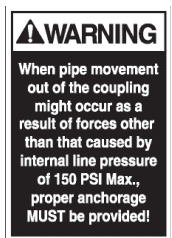
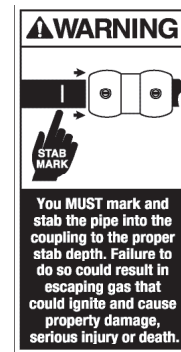
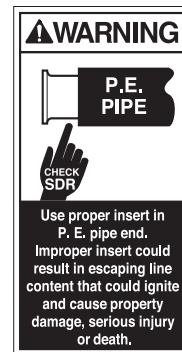
Grip Rings: 4140 Carbon Steel

Gaskets: Grade 154 (SBR) 82 Shore A

Coating: Dresser ALCLAD™ fusion-bonded gray epoxy coating is standard for all Universal POSI-HOLD 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.



STYLE 700 UNIVERSAL POSI-HOLD COUPLINGS & FITTINGS PIPE PULL-OUT RESISTANCE

Pipe Size Nom. (IN)	Pipe Size O.D.	Max. Sealing Pressure (PSI)*	Max. Steel Pipe Pullout Resistance	PE Pullout Resistance up to Max. wall listed in table meets or exceeds the requirements as specified in DOT 192.261 (e). (See Notes 1&2)	
				Type 2306/2406	Type 3406/3408
3	3.500	150 PSI	13000 lbs.	SDR 9.3	SDR 9.3
4	4.500	150 PSI	14000 lbs.	SDR 9.3	SDR 9.3
6	6.625	150 PSI	22000 lbs.	SDR 11	SDR 11
8	8.625	150 PSI	37000 lbs.	SDR 11	SDR 11

*Unless noted on body.

Note 1- For wall thickness greater than SDR listed, contact Dresser for recommendation.

Note 2- Pullout resistance is based on using Dresser reinforcing pipe inserts.

Additional Pressure Ratings available upon request.

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DPS-010
700.POSIHOLD.2021