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Part Name: ID-Controlled Groove Transition Fitting Part Number: 860-xxxx

ID Controlled Groove Transition Fitting

Description - The Poly-Cam ID-Controlled Groove Transition is designed to provide a smooth, interior transition between the steel pipe and the polyethylene pipe. The connection between the steel fitting and the polyethylene pipe is accomplished with a multi-level barb system and a compression ring supporting the connection. The multi-level barb system provides the sealing connection between the steel and the polyethylene pipe. The interior of the fitting contains no sharp edges in which pipeline cleaning pigs can be caught or damaged. The groove is coated with an epoxy coating. The compression ring is constructed out of carbon steel material and coated with an epoxy-coated material. Stainless steel compression rings are optional.

- Sizes range from 1" to 12" Iron Pipe Sizes.
- Grooves are cut to standard cut groove specification.

System Performance

The transition fitting is designed to handle the pressure rating of the HDPE pipe with a 2:1 safety factor at 73.40 degrees Fahrenheit with a minimum 50-year design life.

Quality Assurance

The transition fitting shall be manufactured by Poly-Cam, Inc. Poly-Cam, Inc. shall provide quality assurance with regards to proper installation, compatibility, performance, and acceptance. The transition joint meets or exceeds the requirements of:

- ASTM 1598 and ASTM 1599
- All Fittings meet ARRA requirements.

Installation

HDPE pipe end: Install transition fitting to comply with the pipe manufacturer's recommended procedures. All field welds shall be completed per Plastic Pipe Institute's welding procedure for butt fusion.

Steel Fitting: The entrance of the coupling is tapered at the beginning. The polyethylene or copolymer material is cold pressed into the coupling. This allows the material to relax into the multi-level barb system.

<u>Material</u>

Steel Fitting:

- Manufactured of Carbon Steel (A53 or A106 grade), Type 304, or Type 316 (ASTM A249 or ASTM A269) and or ERW pipe (ASTM SA-312)
- For carbon steel, the epoxy coating (IF 194T Red Iron Oxide) is fusion bonded to the metal. Meets NSF 61, FDA 175.300, AWWA C116-01,C213-01, UL 262 and FM 1120/1130

High-Density Polyethylene: HDPE pipe

- Meets ASTM D-3350 with minimum cell classification values of 345464C (PE 3408), PE445574C (PE 4710)
- Meets ASTM F714.
- Density shall be no less than 0.955 g/cm as referenced in ASTM D1505
- Melt index no greater than 0.15 g/10 minutes when tested per ASTM D 1238
- Tensile Strength at Yield –tensile shall be 3,200 psi to less than 3,500 psi as referenced in ASTM D638
- ESCR-Environmental Stress Crack Resistance shall be over 5,000 hours with zero failures when tested per ASTM D 1693-Condition C
- All pipe meets ASTM 3035.
- All certifications will be submitted upon request.

<u>Warranty</u>

The warranty period is one year after the date of substantial completion of installation.

Series 860 ID-Controlled Groove Transition

SDR 7 Nominal Size (In.)	Coupling /HDPE O.D.	Coupling I.D. B	SDR7 PE Pipe I.D. C	Total Length D
2	2.375	2.090	1.656	25
3	3.5	3.095	2.44	26
4	4.5	4.094	3.137	26
6	6.625	6.100	4.619	34
8	8.625	8.080	6.013	34
10	10.75	10.100	7.494	44
12	12.75	12.100	8.889	44

