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Part Name: Female Thread HDPE Transition Fitting
Part Number: 712-xxxx

Threaded Transitions

The POLY-CAM Threaded Transition is a multi-level mechanical transition fitting. The polyethylene or pipe-quality copolymer material are hydraulically compressed into the transition fitting.

All threaded transitions can be made to be AIS (American Iron and Steel) or BABA compliant upon request.

Design

Relaxation of the pipe creates a seal to prevent leakage. Under pressure, the internal pressure within the pipe increases the sealing surface area on the barb. Under zero internal pressure, the compression and tensional strain created by the compression of the multi-level barbs are greater than the stress created by relaxation and/or thermal expansion and contraction. As the internal pressure increases, the connection between the pipe material and transition fitting increases.

- Sizes range from .5 to 8" NPT.
- All National Pipe Threads are made to ANSI/ASME B1.20.1 – 2013.

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, ASTM 1599, and ASTM D3261
- All fittings meet ARRA requirements.
- Meets NSF 61, listing PM13570

Note: This fitting does not meet ASTM D2513. The fitting CANNOT be used in natural gas applications.

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.

Material

Threaded Fitting:

- Manufactured of C954 grade Aluminum Bronze (Lead Free material this complies with California AB1953,SB1334 and SB1935).

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.

Warranty

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

NSF

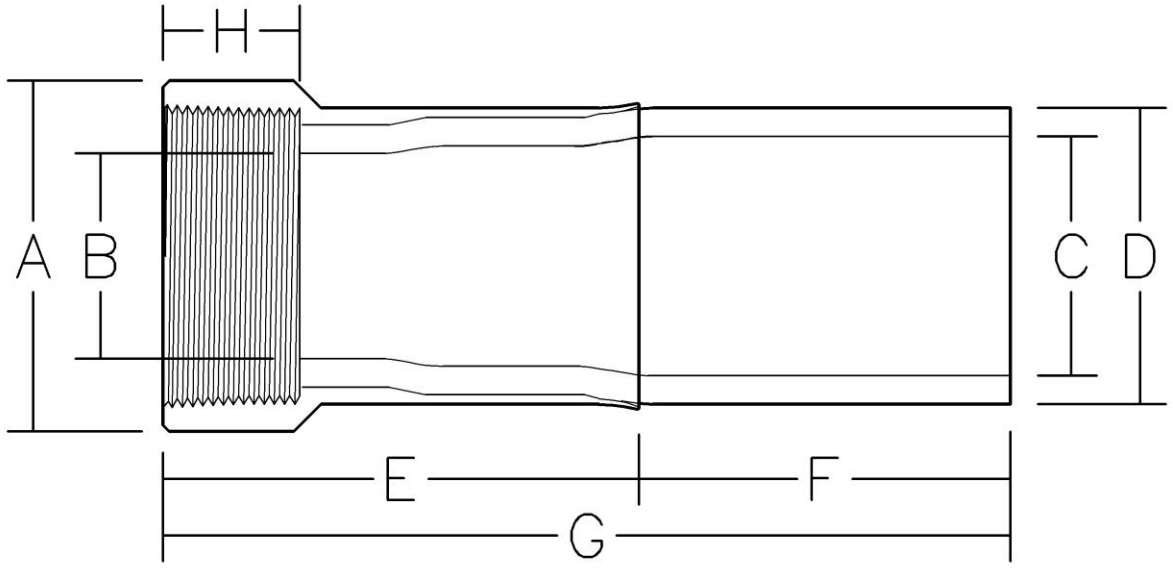
Certified to NSF/ANSI/CAN 61

Revision Date: 9-14-2024

Series 712 Transition with Female NPT

SDR 11

Nominal Size (In.)	Coupling O.D. **A**	Pressed SDR11 PE Pipe I.D. **B**	Exposed SDR11 PE Pipe I.D. **C**	Exposed PE Pipe O.D. **D**	Coupling Length **E**	Exposed PE Pipe Length **F**	Overall Length **G**	Thread Length **H**
0.5	0.990	~0.625	0.68	0.840	1.6	7	8.6	0.61
0.75	1.245	~0.79	0.85	1.050	1.6	7.2	8.8	0.8
1	1.500	~0.97	1.06	1.315	2	6.661	8.661	0.91
1.25	2.050	~1.24	1.34	1.660	2.6	6.45	9.05	0.95
1.5	2.350	~1.42	1.533	1.900	3	6.33	9.33	0.9
2	2.750	~1.76	1.917	2.375	4	5.4	9.4	1
2.5	3.040	~1.99	2.31	2.875	4	5.75	9.75	1.5
3	4.200	~2.42	2.826	3.500	4	5.85	9.85	1.75
4	5.160	~3.23	3.633	4.500	5.875	8	13.875	1.875
5	6.260	~4.0	4.49	5.563	6.75	8	14.75	1.75
6	7.390	~4.9	5.349	6.625	6.875	8	14.875	1.875
8	9.650	~6.3	6.963	8.625	9.5	8	17.5	2.5



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