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Part Name: Standard Tee with Female Transition
Part Number: 512-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.

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 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 pressed into the coupling. This allows the material to relax into the multi-level barb system.

Material

Threaded Fitting:

- Manufactured of Carbon Steel (A53 or A106 grade), Type 304 or Type 316 Stainless Steel (ASTM A249 or ASTM A269), C954 grade Aluminum Bronze (Lead Free material this complies with California AB1953,SB1334 and SB1935) 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 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.

Warranty

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

Series 512 Standard Tee with Female Transition

Nominal Size (In.)	POLY-CAM Thread Material	Coupling Diameter **A**	HDPE Diameter **B**	HDPE Length **C**	HDPE Length **D**
0.75	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	1.05	1.05	~5.0	2.94
1	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	1.315	1.315	~6.0	3.06
1.25	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	1.66	1.66	~6.0	3.9
1.5	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	1.9	1.9	~7.0	4.62
2	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	2.375	2.375	~7.0	5.125
3	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	3.5	3.5	~8.0	5.72
4	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	4.5	4.5	~9.0	6.25
6	Carbon Steel, Stainless 316, Stainless 304	6.625	6.625	~11.0	8.31
8	Carbon Steel, Stainless 316, Stainless 304	8.625	8.625	~15.0	12.09