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Part Name: Electrofusion Branch Saddle with Flange
Part Number: 573-xxxx

Electrofusion Branch Saddle with Flange

The transition fitting consists of a two-piece construction. The electrofusion branch saddle and the fitting are joined together by hydraulically pressing the fitting onto the HDPE electrofusion branch saddle. The steel fitting portion of the transition fitting is machined with a multi-level barb system that provides a leak-free radial compressed joint.

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 1.25" to 18"
- Flange dimensions to ANSI B16.5. Available in standard pound rating: 150, 300, and 600.

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

Electrofusion Branch Saddle: Use the electrofusion manufacturer's guidelines to install the fitting on the main pipe.

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

Flanged Fitting:

- Manufactured of carbon steel (A53 or A106 grade), Type 304, 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. 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 573 Electrofusion Branch Saddle with Flange

Nominal Size (In.)	Poly-Cam Material	Flange Diameter **A**	Outlet to Main Length **B**	IPS Radius **R**	DIPS Radius **R2**
1.25	Carbon Steel, Stainless 316, Stainless 304	5.25	7	1.660	N/A
1.5	Carbon Steel, Stainless 316, Stainless 304	6.12	7	1.900	N/A
2	Carbon Steel, Stainless 316, Stainless 304	6.5	8	2.375	N/A
3	Carbon Steel, Stainless 316, Stainless 304	8.25	9	3.500	N/A
4	Carbon Steel, Stainless 316, Stainless 304	10	9	4.500	4.800
6	Carbon Steel, Stainless 316, Stainless 304	12.5	10	6.625	6.900
8	Carbon Steel, Stainless 316, Stainless 304	15	13.5	8.625	9.050
10	Carbon Steel, Stainless 316, Stainless 304	17.5	14.5	10.750	11.100
12	Carbon Steel, Stainless 316, Stainless 304	20.5	16	12.750	13.200
14	Carbon Steel, Stainless 316, Stainless 304	23	16.5	14.000	15.300
16	Carbon Steel, Stainless 316, Stainless 304	25.5	18	16.000	17.400
18	Carbon Steel, Stainless 316, Stainless 304	28	22	18.000	19.500