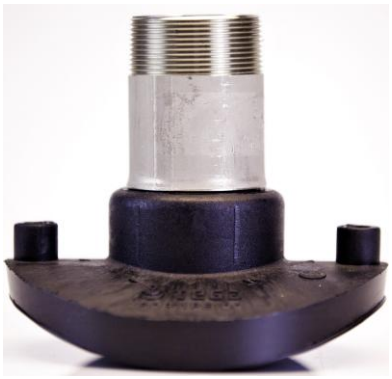
1101 McKinley Street
Anoka, MN 55303
Phone (763) 786-6682
Fax (763) 786-2167
www.polycam.com



Part Name: Electrofusion Branch Saddle with Male Pipe Thread
Part Number: 571-xxxx

Electrofusion Branch Saddle with Male Transition

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 .5 to 2" 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

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

Threaded Fitting: When installing the transition fitting:

- Always use pipe joint sealant or Teflon tape.
- Always use strap wrenches**.**
- **Do not use a pipe wrench.**
- **Always use 2 wrenches when connecting.**
- **Over tightening may cause ovality or damage.**
- **Always pressure test for leaks before backfilling.**
- Backfill and compact carefully around transition and service line to prevent ground shifts which could damage the valve and/or transition fitting.

Material

Threaded Fitting:

- Manufactured of Carbon Steel (A53 or A106 grade), Type 304 or Type 316 Stainless Steel (ASTM A249 or ASTM A269), ERW pipe (ASTM SA-312), or C954 grade Aluminum Bronze (lead-free material).
- 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 571 Electrofusion Branch Saddle with Male Pipe Thread

Nominal Size (In.)	Poly-Cam Thread Material	Male Pipe Thread Outlet **A**	Outlet to Main Length **B**	IPS Radius **R**	DIPS Radius **R2**
1.25	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-1.25"	4.5	1.660	N/A
1.5	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-1.5"	4.6	1.900	N/A
2	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-2"	5	2.375	N/A
3	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-2"	6	3.500	N/A
4	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-2"	6.5	4.500	4.800
6	Carbon Steel, C954 Bronze, Stainless 316, Stainless 304	0.5-2"	7.5	6.625	6.900
8	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	8	8.625	9.050
10	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	9	10.750	11.100
12	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	11.4	12.750	13.200
14	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	11.4	14.000	15.300
16	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	11.4	16.000	17.400
18	Carbon Steel, Stainless 316, Stainless 304	0.5-2"	11.4	18.000	19.500