



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



Part Name: PP-R with Cut Groove Transition
Part Number: 1010-xxxx

Groove Transitions

The Poly-Cam Groove 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 0.75" to 24" 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

PP-R 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

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

Polypropylene: PPR pipe

- PP-R pipe conforms to ASTM F2389 and CSA B137.11.

Stainless Steel insert: The insert is manufactured out 304 stainless steel tubing (ASTM A249 or ASTM A269) or ERW pipe (ASTM SA-312).

Warranty

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

Series 1010 PP-R with Cut Groove

Nominal Size (In.)	Poly-Cam Cut Groove Material	Coupling Diameter A	Coupling Length B	PP-R Length C	PP-R Diameter (mm) D
0.75	Carbon Steel, SS 304, SS 316, Epoxy Coated	1.2	1.6	7	25
1		1.315	2.25	5.75	32
1.25		1.66	2.6	5.4	40
1.5		1.9	2.6	5.4	50
2		2.375	3	5	63
2.5		2.875	4	4	75
3		3.5	4	4	90
4		4.5	4	8	110/125
6		6.625	5	8	160
8		8.625	6	9	200
10		10.75	7	9	250
12		12.75	9	9	315
14		14	9	11	355
16		16	10	12	400
18		18	14	16	450
20		20	16	24	500
24		24	18	24	630

