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Part Name: ID-Controlled Flange Transition Fitting  
Part Number: 867-xxxx

## **ID Controlled Flange Transition Fitting**

The Poly-Cam ID-Controlled Flange Transition is a restraining, multi-level barbed transition fitting. This design allows a non-reducing, smoothbore transition between the HDPE and steel pipe. It is hydraulically compressed into the polyethylene or pipe quality copolymer material.

### **Design**

The Poly-Cam ID-Controlled Flange transition is designed to provide a smooth, interior transition between the steel pipe and the polyethylene pipe. The connection between the steel fitting and the polyethylene pipe is accomplished with a multi-level barb system and a compression ring supporting the connection. The multi-level barb system provides the sealing connection between the steel and the polyethylene pipe. The interior of the fitting contains no sharp edges in which pipeline cleaning pigs can be caught or damaged. The weld-on is coated with an epoxy coating. The compression ring is constructed out of carbon steel material and coated with an epoxy-coated material.

- Tested and complies to ASTM D2513 Category 1, ASTM 1973-05, D1599, D1598
- Sizes range from .5" to 24" in both Carbon, 304, and 316 stainless steel pipes.
- Flange dimensions to ANSI B16.5. Available in standard pound rating: 150, 300, and 600. Raised and smooth face designs available upon request.

### **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. Transition joint meets or exceeds the requirements of ASTM D2513 Category 1.

## **Installation**

**HDPE pipe end:** Install transition fitting so as to comply with the pipe manufacturer's recommended procedures. All field welds shall be accomplished in accordance with Plastic Pipe Institute's welding procedure for butt fusion.

## **Material**

**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.

**Steel Fitting:** Manufactured of Carbon Steel (A53 or A106 grade), Type 304, Type 316 (ASTM A249 or ASTM A269), or ERW pipe (ASTM SA-312). All certification will be submitted upon request.

**Epoxy Coating:** The carbon steel sleeve shall be coated with an epoxy coating. The **epoxy coating** (3M™ Scotchkote™ Fusion-Bonded Epoxy Coating 6233) is fusion bonded to the metal. It has approvals AWWA C213 and C550.

**Compression Ring** - The compression rings are manufactured out of 304/316 stainless steel tubing (ASTM A249 or ASTM A269), epoxy-coated carbon steel, or ERW pipe (ASTM SA-312).

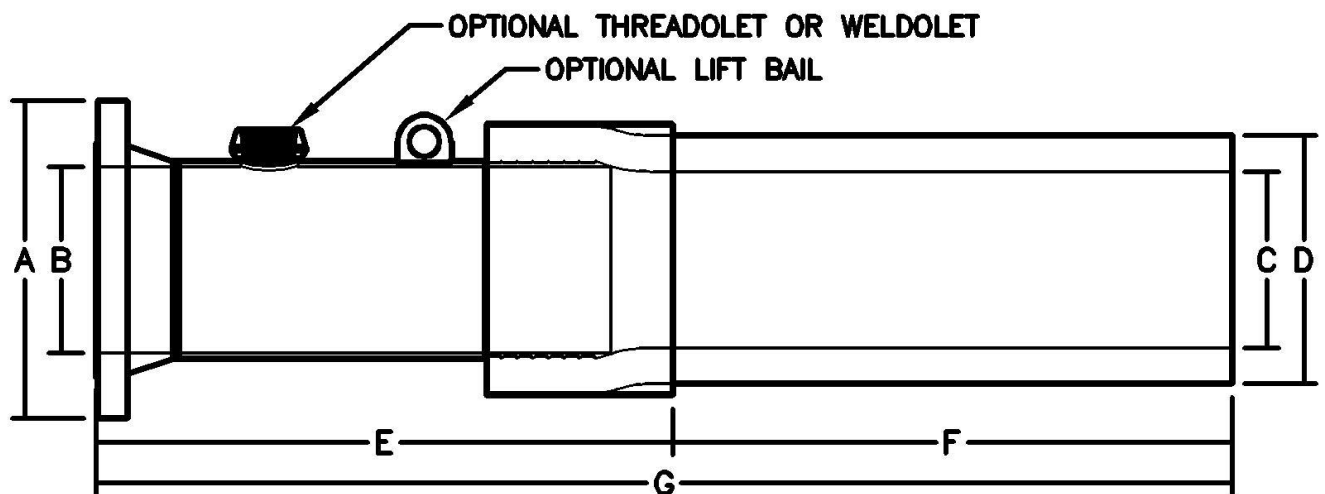
## **Warranty**

Warranty period is five year after date of substantial completion of installation.

# Series 867 ID Controlled Flange Transition

## Reducing Type True ID Control Design

Nominal Size (In.)	Flange 150# <b>A</b>	Steel pipe <b>B</b>	SDR 11 <b>C</b>	HDPE OD <b>D</b>	Total Steel <b>E</b>	Exposed HDPE <b>F</b>	Total Trans <b>G</b>
3x2	6	2.07	2.83	3.5	19.25	19	38.25
4x3	7.5	3.07	3.63	4.5	22.25	18	40.25
6x4	9	4.03	5.35	6.63	24	22	46
8x6	11	6.07	6.96	8.63	31.5	20	51.5
10x8	13.5	7.98	8.68	10.75	34	28	62
12x10	16	10.02	10.29	12.75	34.5	28	62.5
14x12	19	12	11.3	14	41.5	28	69.5
16x14	21	13.25	12.92	16	41.5	34	75.5
16x12	19	12	12.92	16	42	34	76
16x14	21	13.25	12.92	16	46.5	34	80.5
18x16	23.5	15.27	14.53	18	46.5	34	80.5
20x16	23.5	15.27	16.15	20	46.5	34	80.5
24x20	27.5	19	19.37	24	46.5	34	80.5



## Size on Size Design

Nominal Size (In.)	Flange 150# <b>A</b>	Steel pipe <b>B</b>	SDR 11 <b>C</b>	HDPE OD <b>D</b>	Total Steel <b>E</b>	Exposed HDPE <b>F</b>	Total Trans <b>G</b>
2x2	6	2.07	1.917	2.375	19.25	19	38.25
3x3	7.5	3.07	2.826	3.5	22.25	18	40.25
4x4	9	4.03	3.633	4.5	24	22	46
6x6	11	6.07	5.349	6.625	31.5	20	51.5
8x8	13.5	7.98	6.963	8.625	34	28	62
10x10	16	10.02	8.679	10.75	34.5	28	62.5
12x12	19	12	10.293	12.75	41.5	28	69.5
14x14	21	13.25	11.301	14	41.5	34	75.5
16x16	23.5	15.27	12.915	16	42	34	76
18x18	25	18	14.532	18	46.5	34	80.5
20x20	27.5	19	16.146	20	46.5	34	80.5
24x24	32	23	19.374	24	46.5	34	80.5

