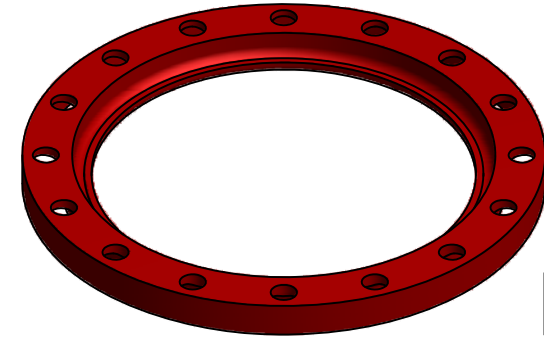


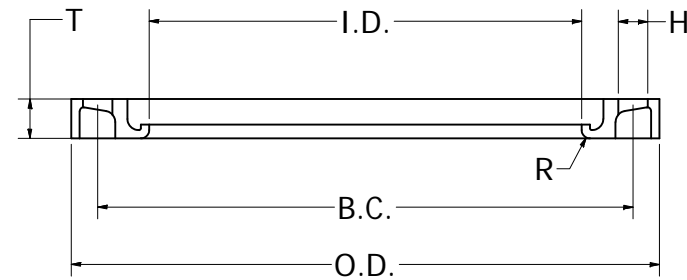
Material: Ductile Iron, ASTM A536, 65/45/12

REVISION HISTORY			
REV	DESCRIPTION	DATE	DESIGNER
2	ADD 42" SDR11	09/07/11	Matt Graff
3	ADD 20", 22", 24 SDR7	10/14/11	Matt Graff
4	EDIT SDR COLUMN	06/28/12	Matt Graff
5	EDIT PER PHYSICAL FLANGE	05/20/13	Don Peterson
6	CHANGED SDR26 TO SDR17 AND SDR19 TO SDR26	2/26/2014	JEREMY GARZA
1	VALID - ORIGINAL DWG	7/29/11	Matt Graff
7	CHANGED 160psi to 200psi & 267psi to 335psi	4/2/14	JEREMY GARZA

Dimensions											
Pipe Diameter (in)	SDR	O.D.	T	I.D.	Bolt Count	Bolt Hole Size (H)	Bolt Hole Circle (BC)	R	Weight (lbs)	Pressure Class (PC)	FM Approved
1/2"	7	3.500	0.500	0.900	4	0.625	2.380	0.130	1.0	335	N/A
3/4"	7	3.880	0.500	1.110	4	0.625	2.750	0.130	1.0	335	N/A
1"	7	4.250	0.560	1.380	4	0.625	3.130	0.130	1.0	335	N/A
1 1/4"	7	4.630	0.630	1.720	4	0.625	3.500	0.190	1.4	335	N/A
1 1/2"	7	5.000	0.690	1.970	4	0.625	3.880	0.250	1.7	335	N/A
2"	7	6.000	0.750	2.460	4	0.750	4.750	0.310	2.2	335	FM(200psi)
2"	11	6.000	0.500	2.630	4	0.750	4.750	0.200	1.5	200	FM(160psi)
2 1/2"	7	7.000	0.880	2.970	4	0.750	5.500	0.310	4.0	335	FM(200psi)
3"	7	7.500	0.940	3.600	4	0.750	6.000	0.400	3.5	335	FM(200psi)
3"	11	7.500	0.530	3.750	4	0.750	6.000	0.280	2.5	200	FM(160psi)
4"	7	9.000	0.940	4.600	8	0.750	7.500	0.400	5.0	335	FM(200psi)
4"	11	9.000	0.550	4.750	8	0.750	7.500	0.280	3.5	200	FM(160psi)
5"	7	10.000	0.940	5.690	8	0.875	8.500	0.440	6.0	335	FM(200psi)
6"	7	11.000	1.000	6.750	8	0.875	9.500	0.400	7.5	335	FM(200psi)
6"	11	11.000	0.630	6.880	8	0.875	9.500	0.280	4.5	200	FM(160psi)
8"	7	13.500	1.120	8.750	8	0.875	11.750	0.400	11.0	335	FM(200psi)
8"	11	13.500	0.850	8.880	8	0.875	11.750	0.280	8.0	200	FM(160psi)
10"	7	16.000	1.190	10.920	12	1.000	14.250	0.400	17.0	335	FM(200psi)
10"	11	16.000	0.980	11.000	12	1.000	14.250	0.310	12.0	200	FM(160psi)
12"	7	19.000	1.500	12.920	12	1.000	17.000	0.400	22.0	335	FM(200psi)
12"	11	19.000	1.250	13.130	12	1.000	17.000	0.280	20.0	200	FM(160psi)
14"	7	21.000	1.630	14.180	12	1.125	18.750	0.400	37.0	335	FM(200psi)
14"	11	21.000	1.380	14.380	12	1.125	18.750	0.310	30.0	200	FM(160psi)
16"	7	23.500	1.880	16.190	16	1.125	21.250	0.400	52.5	335	FM(200psi)
16"	11	23.500	1.650	16.380	16	1.125	21.250	0.350	40.0	200	FM(160psi)
18"	7	25.000	1.900	18.200	16	1.250	22.750	0.400	56.0	335	FM(200psi)
18"	11	25.000	1.670	18.380	16	1.250	22.750	0.350	41.0	200	FM(160psi)
20"	7	27.500	2.125	20.375	20	1.250	25.000	0.310	66.5	335	FM(200psi)
20"	11	27.500	1.810	20.380	20	1.250	25.000	0.400	53.0	200	FM(160psi)
22"	7	29.500	2.300	22.375	20	1.375	27.250	0.310	87.0	335	FM(200psi)
22"	11	29.500	2.000	22.380	20	1.380	27.250	0.370	65.0	200	FM(160psi)



Expoxy coated



NOTES

Improved Piping Products' backing ring and blinds mate with AWWA C207, ANSI B16.5 and ANSI B16.47, as appropriate. Specifications not stated in these standards follow internal specifications

DRAWN Matt Graff	7/29/2011	
ENG Jeremy Garza	4/7/2014	
QA Teresa Matias	4/7/2014	
VPOP		
TITLE		BUP-SDR Convoluted Flange / Backup Ring Submittal Sheet

UNLESS OTHERWISE NOTED, ALL DIMENSIONS IN INCHES

SIZE	PART NO	SALES NO
C	BUP-SDR submittal	
SCALE		REV 6 SHEET 1 OF 2

Ongoing engineering design efforts may affect the technical information listed in our publications.



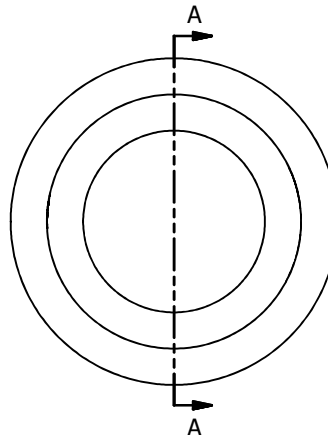
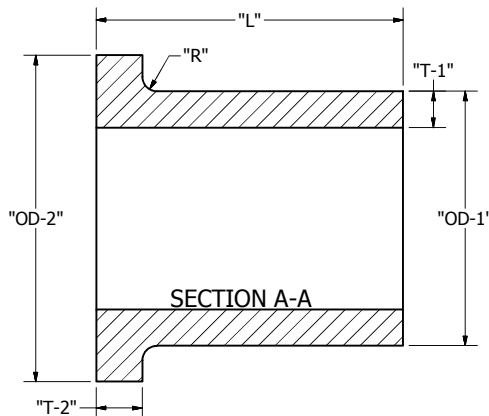
Material: HDPE - PE4710/3608/100

REVISION HISTORY		
REV	DESCRIPTION	DATE
1	VALID-ORIGINAL DWG	5/02/2017
2	ADDED MAX T-2 DIM	5/10/2018

SIZE	Minimum Wall Thickness and Maximum Hub Height (2"-63")																			
	SDR's																			
	7		9		11		13.5		15.5		17		19		21		26		32.5	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
2	0.34	0.50	0.26	0.50	0.22	0.45	0.18	0.45	0.15	0.45	0.14	0.45	0.13	0.45	0.11	0.45	0.09	0.45	0.07	0.45
3	0.50	0.70	0.39	0.70	0.32	0.67	0.26	0.67	0.23	0.67	0.21	0.67	0.18	0.67	0.17	0.67	0.14	0.67	0.11	0.67
4	0.64	1.12	0.50	1.12	0.41	0.90	0.33	0.90	0.29	0.90	0.27	0.90	0.24	0.90	0.21	0.90	0.17	0.90	0.14	0.90
6	0.95	1.34	0.74	1.34	0.60	0.90	0.49	0.90	0.43	0.90	0.39	0.90	0.35	0.90	0.32	0.90	0.26	0.90	0.20	0.90
8	1.23	1.82	0.96	1.82	0.78	1.12	0.64	1.12	0.56	1.12	0.51	1.12	0.45	1.12	0.41	1.12	0.33	1.12	0.27	1.12
10	1.54	2.24	1.19	1.68	0.98	1.46	0.80	1.46	0.69	1.46	0.63	1.43	0.57	1.01	0.51	1.01	0.41	1.01	0.33	1.01
12	1.82	2.55	1.42	2.10	1.16	1.73	0.94	1.73	0.82	1.73	0.75	1.73	0.67	1.12	0.61	1.12	0.49	1.12	0.39	1.12
14	2.00	2.85	1.56	2.24	1.27	1.91	1.04	1.91	0.90	1.91	0.82	1.82	0.74	1.23	0.67	1.23	0.54	1.23	0.43	1.23
16	2.29	3.25	1.78	2.50	1.46	2.13	1.19	2.13	1.03	2.13	0.94	2.13	0.84	1.35	0.76	1.35	0.62	1.35	0.49	1.35
18	2.57	4.11	2.00	2.75	1.64	2.35	1.33	2.35	1.16	2.35	1.06	2.24	0.95	1.40	0.86	1.40	0.69	1.40	0.55	1.40
20	2.86	3.88	2.22	3.74	1.82	2.55	1.48	2.55	1.29	2.55	1.18	2.52	1.05	1.56	0.95	1.56	0.77	1.56	0.62	1.56
22	3.14	4.19	2.44	4.17	2.00	2.75	1.63	2.75	1.42	2.75	1.29	2.75	1.16	1.70	1.05	1.70	0.85	1.70	0.68	1.70
24	3.43	4.61	2.67	4.61	2.18	3.15	1.78	3.15	1.55	3.15	1.41	3.00	1.26	1.87	1.14	1.87	0.92	1.87	0.74	1.87
26	3.71	4.89	2.89	4.89	2.36	3.21	1.93	3.21	1.68	3.21	1.53	3.21	1.37	1.92	1.24	1.92	1.00	1.92	0.80	1.92
28	4.00	5.25	3.11	5.25	2.55	3.43	2.07	3.43	1.81	3.43	1.65	3.43	1.47	2.06	1.33	2.06	1.08	2.06	0.86	2.06
30	4.29	5.61	3.33	5.61	2.73	3.66	2.22	3.66	1.94	3.66	1.77	3.66	1.58	2.21	1.43	2.21	1.15	2.21	0.92	2.21
32			3.56	5.96	2.91	3.89	2.39	3.89	2.07	3.89	1.88	3.89	1.68	2.36	1.52	2.36	1.23	2.36	0.99	2.36
34			3.78	6.32	3.09	4.11	2.52	4.11	2.19	4.11	2.00	4.11	1.79	2.49	1.62	2.49	1.31	2.49	1.05	2.49
36			4.00	6.68	3.27	4.34	2.67	4.34	2.32	4.34	2.12	4.34	1.90	2.62	1.71	2.62	1.39	2.62	1.11	2.62
42					3.82	5.02	3.11	5.02	2.71	5.02	2.47	5.02	2.21	3.01	2.00	3.01	1.62	3.01	1.29	3.01
48					4.36	5.75	3.56	5.71	3.10	5.71	2.82	5.71	2.53	3.41	2.29	3.41	1.85	3.41	1.48	3.41
54											3.18	6.39	2.84	3.80	2.57	3.80	2.08	3.80	1.66	3.80
63											3.71	7.41	3.32	4.40	3.00	4.40	2.42	4.40	1.94	4.40

Flange Adapter Dimensions					
Size	Type	OD-1	OD-2	L	R
2	IPS	2.38	4.00	6.00	0.25
3	IPS	3.50	5.00	6.00	0.25
4	IPS	4.50	6.60	6.80	0.38
6	IPS	6.63	8.50	8.00	0.38
8	IPS	8.63	10.60	9.00	0.38
10	IPS	10.75	12.80	10.75	0.38
12	IPS	12.75	15.25	11.00	0.38
14	IPS	14.00	17.50	11.00	0.50
16	IPS	16.00	20.00	12.00	0.50
18	IPS	18.00	21.10	12.00	0.50
20	IPS	20.00	23.50	12.00	0.50
22	IPS	22.00	25.60	12.00	0.50
24	IPS	24.00	27.90	14.00	0.50
26	IPS	26.00	29.75	14.00	0.50
28	IPS	28.00	32.00	14.00	0.50
30	IPS	30.00	34.00	14.00	0.50
32	IPS	32.00	36.13	14.00	0.50
34	IPS	34.00	38.13	14.00	0.50
36	IPS	36.00	40.50	14.00	0.50
42	IPS	42.00	47.13	21.00	0.50
48	IPS	48.00	53.50	21.00	0.50
54	IPS	54.00	59.63	21.00	0.50
63	IPS	63.00	66.79	21.00	0.50

\*SDR7 20" OAL- 12.750", SDR7 22" OAL- 13.000", SDR9 36" OAL-16.500"



UNLESS OTHERWISE NOTED:  
AND ALL DIMENSIONS IN INCHES

**PP IMPROVED**  
PIPING PRODUCTS, INC.

TITLE			
IPS Flange Adapter Submittal			
SIZE/PART NO		SALES NO	
C			
SCALE	MATL: HDPE-PE4710/3608/100	WEIGHT	SHEET 1 OF 1