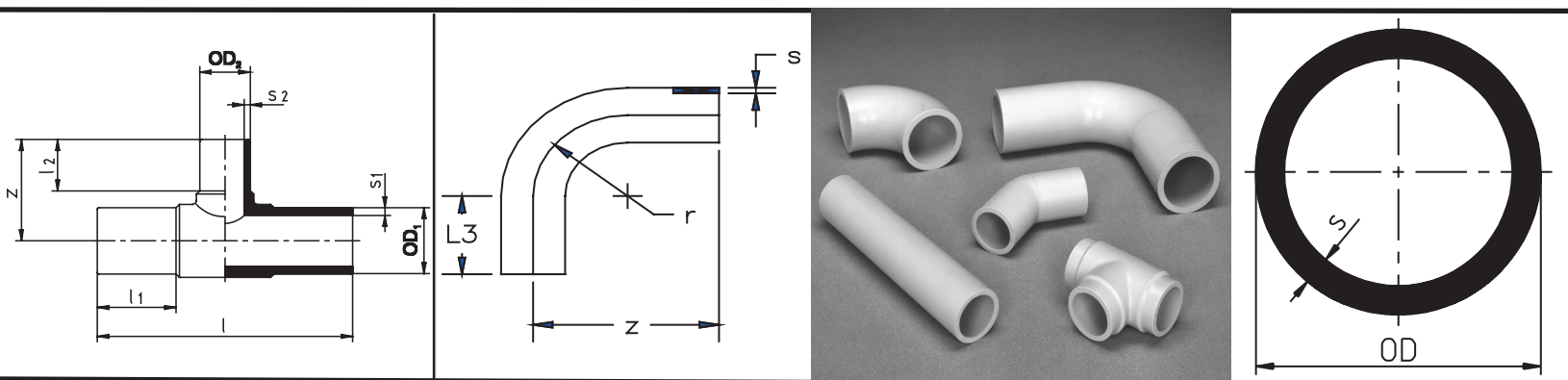


Dimensional Guide

Proline™

Polypropylene

Single Wall Piping System



Proline™ Dimensional Guide

Piping systems engineered to meet the most demanding industrial applications

Together, with our internationally recognized partner, Agru, Asahi/America provides the most comprehensive and technologically advanced industrial piping systems available. Proline™ Polypropylene offers more sizes, fittings and pressure ratings than from any other single source. This extensive product offering is supported by an experienced and knowledgeable group of staff engineers, technicians and sales agents, all ready to assist you with your application's requirements.



Proline™ Polypropylene

Polypropylene (PP) is a member of the polyolefin family. PP is one of the lightest plastics known. It possesses excellent chemical resistance to many acids, alkalis and organic solvents. PP is one of the best materials to use for systems exposed to varying PH levels, as many plastics do not handle both acids and bases well. It is not recommended for use with hydrocarbons and aromatics. Its upper temperature limit is 195° (90° C). Proline™ is available in 150 psi and 45 psi standard. Options in 90 psi are available. Proline® is available from 3/8" (16mm) to 54" (1400mm).

Note to this Guide:

The system is metric sized based on Standard Dimension SDR pipe sizes. **Dimensions given are for reference only.** All systems, regardless of material, maintain a constant pipe and fitting OD. Imperial (inch) ODs are provided as nominal sizes only.

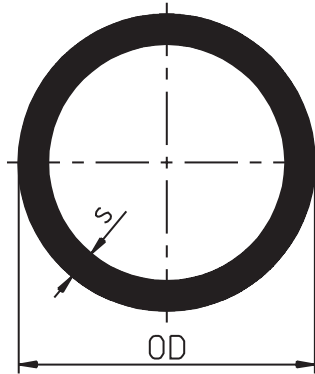
Within the SDR System, nominal pressure ratings vary according to material but not OD. Pressure ratings generally remain constant within material and SDR classification. For example: all SDR21 PVDF pipe and fittings are rated to 16 bar or 230psi. Exceptions, if any, may be found in cases where valves or threads carry ratings independent of SDR sizing.

Outside and Inside Dimensional Comparison for Common Process Pipe Systems

Nominal Pipe Size	SDR11		SDR21		SDR33		SCH40		SCH80		SS Tube	
	OD (INCH)	ID (INCH)	OD (INCH)	ID (INCH)	OD (INCH)	ID (INCH)	OD (INCH)	ID (INCH)	OD (INCH)	ID (INCH)	OD (INCH)	ID (INCH)
1/2	0.787	0.591	0.787	0.644	-	-	0.840	0.622	0.840	0.546	0.50	0.37
3/4	0.984	0.766	0.984	0.830	-	-	1.050	0.82	1.050	0.742	0.75	0.62
1	1.260	1.020	1.260	1.071	-	-	1.315	1.049	1.315	0.957	1.00	0.87
1-1/4	1.575	1.288	1.575	1.381	-	-	1.660	1.380	1.660	1.278	-	-
1-1/2	1.969	1.611	1.969	1.734	-	-	1.900	1.610	1.900	1.500	1.50	1.37
2	2.480	2.029	2.480	2.244	-	-	2.375	2.067	2.375	1.939	2.00	1.87
2-1/2	2.953	2.416	2.953	2.672	-	-	2.875	2.469	2.875	2.323	2.50	2.37
3	3.543	2.899	3.543	3.206	3.543	3.329	3.500	3.068	3.500	2.900	3.00	2.87
4	4.331	3.543	4.331	3.918	4.331	4.068	4.500	4.026	4.500	3.826	4.00	3.84
6	6.299	5.154	6.299	5.699	6.299	5.917	5.563	5.047	5.563	4.813	6.00	5.78
8	7.874	6.442	7.874	7.124	7.874	7.397	6.625	6.065	6.625	5.761	-	-
9	8.858	7.248	8.858	8.015	8.858	8.321	8.625	7.981	8.625	7.625	-	-
10	9.843	8.053	9.843	8.905	9.843	9.246	10.75	10.020	10.75	9.564	-	-
12	12.402	10.147	12.402	11.220	12.402	11.650	12.75	11.938	12.75	11.376	-	-

Please note: These figures are for PVDF material comparisons only

Pipe



Pipe 5 meter-16.4' length

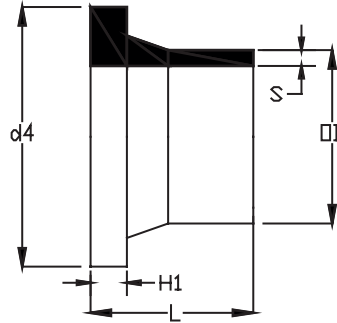
SIZE		PRO 45 / SDR33			PRO 150 / SDR11		
OD [mm]	OD [inch]	Asahi Part #	s	Weight (lbs)	Asahi Part #	s	Weight (lbs)
20	1/2"				5001005	0.098	0.09
25	3/4"				5001007	0.106	0.13
32	1"				5001010	0.114	0.18
40	1 1/4"				5001012	0.146	0.28
50	1 1/2"				5001015	0.181	0.43
63	2"				5001020	0.228	0.68
75	2 1/2"				5001025	0.268	0.94
90	3"				5001030	0.323	1.36
110	4"	5103040	0.134	0.75	5001040	0.394	2.02
160	6"	5103060	0.193	1.56	5001060	0.575	4.30
200	8"	5103080	0.244	2.45	5001080	0.717	6.65
250	10"	5103100	0.303	3.81	5001100	0.894	10.42
315	12"	5103120	0.382	6.03	5001120	1.126	16.53
355	14"	5103140	0.429	7.59	5003140	1.268	20.90
400	16"	5103160	0.484	9.68	5003160	1.429	26.54
450	18"	5103180	0.543	12.23	5003180	1.610	33.67
500	20"	5103200	0.602	14.98	5003200	1.787	41.46

Pipe & Fitting OD size is metric, inch OD provided as nominal size only

Pipe lengths stocked as 5 meter, with longer lengths available.

**Polypropylene
Pro150 Stub End
ANSI 150#**

* Requires Backing Ring



PRO150 SDR11						
OD [mm]	OD [inch]	Asahi Part#	d ₄ (inch)	l (inch)	H ₁ (inch)	Weight (lbs)
20	½"	5018005	1.75	2.05	0.28	0.04
25	¾"	5018007	2.13	1.97	0.35	0.07
32	1"	5018010	2.50	1.97	0.39	0.09
40	1¼"	5018012	2.82	1.97	0.43	0.11
50	1½"	5018015	3.25	1.97	0.47	0.18
63	2"	5018020	3.95	1.97	0.55	0.27
75	2½"	5018025	4.60	1.97	0.63	0.38
90	3"	5018030	5.21	3.15	0.67	0.66
110	4"	5018040	6.22	3.15	0.71	0.97
160	6"	5018060	8.35	3.62	0.98	2.12
200	8"	5018080	10.55	4.33	1.26	4.50
250	10"	5018100	12.60	5.20	1.38	7.23
315	12"	5018120	14.57	5.35	1.38	10.01
355	14"	5018140	16.93	5.91	1.57	14.46
400	16"	5018160	18.98	6.10	1.81	19.27
450	18"	5018180	23.03	4.72	2.36	26.90
500	20"	5018200	23.03	6.89	2.36	32.89

All Dimensions are for reference only, and subject to change without prior notice.

½" – 12" are ANSI style, 14" – 20" are DIN, and all are compatible with ANSI 150# Backing Rings.
4" – 12" are sold standard as chamfered for Butterfly Valves.

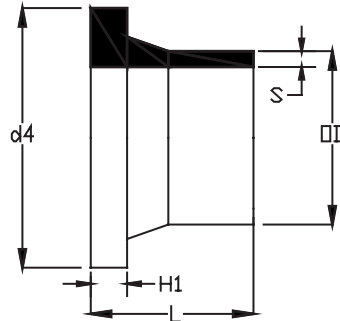
Sizes 5", 7", 9" and 11" are available upon request.

These sizes conform to DIN Standards, not ANSI

IR/Butt Fittings

**Polypropylene
Pro45 Stub End
ANSI 150#**

* Requires Backing Ring



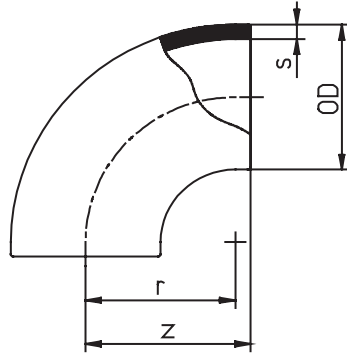
PRO45 SDR33						
OD [mm]	OD [inch]	Asahi Part#	d ₄ (inch)	l (inch)	H ₁ (inch)	Weight (lbs)
110	4"	5120040	6.22	3.15	0.71	0.64
160	6"	5120060	8.35	3.15	0.71	1.19
200	8"	5120080	10.55	4.45	0.71	2.29
250	10"	5120100	12.60	5.20	0.79	3.79
315	12"	5120120	14.57	5.35	0.79	4.59
355	14"	5120140	16.93	4.72	0.91	4.98
400	16"	5120160	18.98	4.72	1.02	8.77
450	18"	5120180	23.03	4.72	1.30	14.02
500	20"	5120200	23.03	4.72	1.30	11.60

All Dimensions are for reference only, and subject to change without prior notice.

4" – 20" are DIN style, and all are compatible with ANSI 150# Backing Rings

Sizes 5", 7", 9" and 11" are available upon request.

These sizes conform to DIN Standards, not ANSI



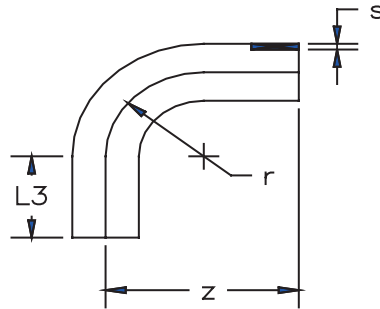
**Polypropylene
90 Elbow**
Short Radius Style

SIZE		PRO150 SDR11			
OD [mm]	OD [inch]	Asahi Part#	r (inch)	z (inch)	Weight (lbs)
110	4"	N/A	N/A	N/A	N/A
160	6"	N/A	N/A	N/A	N/A
200	8"	N/A	N/A	N/A	N/A
250	10"	5004100	10.43	11.42	15.65
315	12"	5004120	11.82	13.39	30.16
355	14"	5004140	11.82	13.39	38.27
400	16"	5004160	11.82	13.58	49.03
450	18"	5004180	15.76	17.68	79.72
500	20"	5004200	15.76	17.68	95.77
SIZE		PRO45 SDR33			
OD [mm]	OD [inch]	Asahi Part#	r (inch)	z (inch)	Weight (lbs)
110	4"	5105040	4.33	4.72	0.55
160	6"	5105060	6.10	7.09	1.63
200	8"	5105080	7.87	8.66	2.95
250	10"	5105100	10.43	11.42	6.13
315	12"	5105120	11.81	13.39	10.94
355	14"	5105140	11.81	13.39	14.24
400	16"	5105160	11.81	13.58	18.12
450	18"	5105180	15.75	17.52	31.26
500	20"	5105200	15.75	17.52	37.88

All Dimensions are for reference only, and subject to change without prior notice.

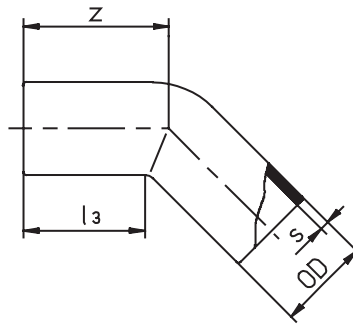
IR/Butt Fittings

Polypropylene
PRO150 MultiBend
Ext-Leg 90 Elbow



SIZE		PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part#	L ₃ (inch)	r (inch)	z (inch)	Weight (lbs)
20	1/2"	5007005	1.57	.79	2.36	0.02
25	3/4"	5007007	1.67	.98	2.70	0.04
32	1"	5007010	1.85	1.26	3.11	0.09
40	1 1/4"	5007012	2.04	1.58	3.64	0.18
50	1 1/2"	5007015	2.30	1.97	4.27	0.29
63	2"	5007020	2.62	2.48	5.10	0.57
75	2 1/2"	5007025	2.95	2.95	5.90	0.88
90	3"	5007030	2.99	3.54	6.61	1.46
110	4"	5007040	3.23	4.33	7.56	2.40
160	6"	5007060	3.96	6.30	10.29	6.97
200	8"	5007080	4.67	7.87	12.54	12.79

All Dimensions are for reference only, and subject to change without prior notice.

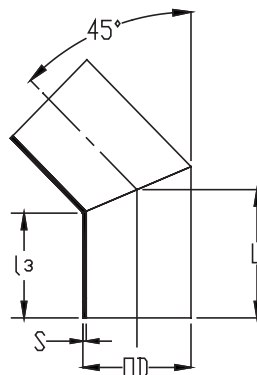


**Polypropylene
PRO150 45-Elbow**
Molded, Ext. Leg Style

SIZE		PRO150 SDR11			
OD [mm]	OD [inch]	Asahi Part#	L ₃ (inch)	z (inch)	Weight (lbs)
20	½"	5008005	1.54	1.73	0.02
25	¾"	5008007	1.65	1.89	0.04
32	1"	5008010	1.93	2.24	0.09
40	1¼"	5008012	2.09	2.48	0.13
50	1½"	5008015	2.24	2.76	0.22
63	2"	5008020	2.64	3.15	0.40
75	2½"	5008025	2.85	3.54	0.57
90	3"	5008030	3.23	4.09	0.93
110	4"	5008040	3.35	4.25	1.46
160	6"	5008060	4.59	6.16	4.32
200	8"	5008080	4.74	6.71	7.59
250	10"	5008100	6.30	8.54	14.90
315	12"	5008120	6.97	10.08	26.46

All Dimensions are for reference only, and subject to change without prior notice.

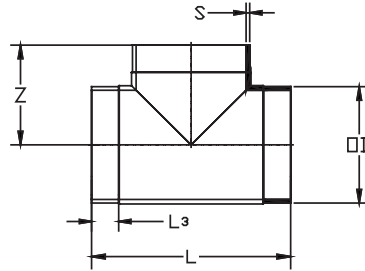
IR/Butt Fittings



**Polypropylene
PRO45 Segmented
45 Degree Elbow**

SIZE		PRO45 SDR33			
OD [mm]	OD [inch]	Asahi Part#	L ₃ (inch)	L (inch)	Weight (lbs)
110	4"	5153040	4.10	5.00	0.75
160	6"	5153060	4.75	6.00	1.56
200	8"	5153080	4.38	6.00	2.45
250	10"	5153100	4.00	6.00	3.81
315	12"	5153120	5.50	8.00	20.77
355	14"	5153140	7.10	10.00	26.14
400	16"	5153160	8.75	12.00	33.34
SIZE		PRO150 SDR11			
OD [mm]	OD [inch]	Asahi Part#	L ₃ (inch)	L (inch)	Weight (lbs)
355	14"	5070140	7.10	10.00	42.28
400	16"	5070160	8.75	12.00	53.67

All Dimensions are for reference only, and subject to change without prior notice.

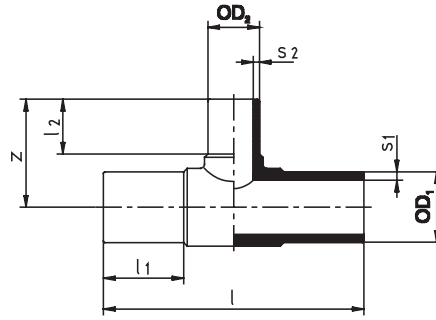


**Polypropylene
Molded Tee**

SIZE		PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	Z (inch)	L ₃ (inch)	Weight (lbs)
20	½"	5011005	2.68	1.34	0.69	0.02
25	¾"	5011007	3.15	1.57	0.81	0.04
32	1"	5011010	3.54	1.77	0.81	0.09
40	1 ¼"	5011012	3.94	1.97	0.81	0.13
50	1 ½"	5011015	4.73	2.36	0.91	0.24
63	2"	5011020	5.67	2.84	0.98	0.49
75	2 ½"	5011025	5.98	2.95	0.59	0.86
90	3"	5011030	8.39	4.13	1.50	1.50
110	4"	5011040	9.96	4.80	2.01	2.60
160	6"	5011060	13.62	6.81	2.24	7.23
200	8"	5011080	15.95	7.97	2.24	13.14
250	10"	5011100	18.50	9.25	2.83	23.94
315	12"	5011120	21.65	10.83	3.15	42.15
355	14"	5011140	27.17	13.58	4.13	67.55
400	16"	5011160	27.56	13.97	4.06	83.69
450	18"	5011180	35.24	17.72	5.12	138.89
500	20"	5011200	35.28	17.72	5.12	156.53
SIZE		PRO45 SDR33				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	Z (inch)	L ₃ (inch)	Weight (lbs)
110	4"	5109040	8.80	4.29	1.30	0.97
160	6"	5109060	13.62	6.81	2.24	3.70
200	8"	5109080	16.14	8.07	2.24	7.01
250	10"	5109100	18.70	9.33	2.76	13.45
315	12"	5109120	21.65	10.83	3.15	21.25
355	14"	5109140	27.20	13.62	3.94	35.45
400	16"	5109160	27.95	13.98	4.10	40.96
450	18"	5109180	35.43	17.72	5.12	72.75
500	20"	5109200	35.23	17.72	5.12	74.20

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

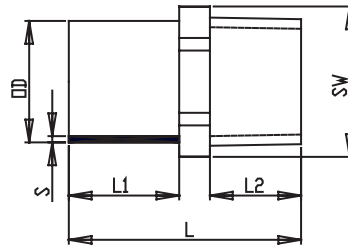


**Polypropylene
Reducing Tee
w/Extended Legs**

SIZE		PRO150 SDR11					Weight (lbs)
OD_1/OD_2 [mm]	OD_1/OD_2 [inch]	Asahi Part #	l (inch)	z (inch)	l_1 (inch)	l_2 (inch)	
90/32	3"/1"	5013336 *	8.39	3.35	2.24	0.91	1.21
90/50	3"/1½"	5013337 *	8.39	3.54	2.24	1.06	1.24
90/63	3"/2"	5013338	10.83	5.45	3.19	2.52	1.65
110/32	4"/1"	5013401 *	9.61	3.70	2.76	0.91	2.01
110/50	4"/1½"	5013415 *	9.61	4.06	2.76	1.06	2.09
110/63	4"/2"	5013420	12.40	6.26	3.43	2.56	2.74
110/90	4"/3"	5013422	12.48	6.10	3.31	3.11	2.78
160/63	6"/2"	5013530	13.66	6.89	3.94	2.64	5.67
160/90	6"/3"	5013531	13.74	7.17	3.98	3.15	5.78
160/110	6"/4"	5013532	15.75	7.95	3.86	3.27	7.01
200/63	8"/2"	5013581	21.65	8.86	5.28	3.15	14.79
200/90	8"/3"	5013582	22.05	8.94	5.28	3.74	14.82
200/110	8"/4"	5013583	22.05	9.65	5.35	4.13	15.52
200/160	8"/6"	5013585	21.65	10.43	5.28	4.49	18.39
250/110	10"/4"	5013626 *	17.72	7.76	5.51	1.46	16.98
250/160	10"/6"	5013627 *	18.27	8.62	4.53	2.44	17.73

All Dimensions are for reference only, and subject to change without prior notice.

All part numbers shown with asterix (*) denotes short spigot style fittings.

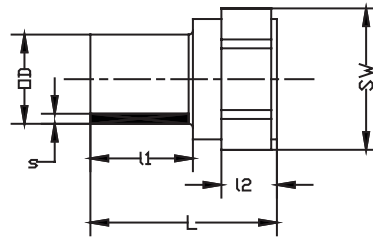


**Polypropylene
Male Adapter**

SIZE		PRO150 SDR11							
OD [mm]	OD [inch]	Asahi Part #	S (inch)	L (inch)	L ₁ (inch)	L ₂ (inch)	SW (inch)	NPT-Thread [inch]	Weight (lbs/pc)
20	½"	5028005	0.098	1.81	0.75	0.71	0.87	½"	0.02
25	¾"	5028007	0.106	2.01	0.87	0.79	1.06	¾"	0.02
32	1"	5028010	0.114	2.40	1.10	0.94	1.42	1"	0.07
40	1¼"	5028012	0.146	2.60	1.14	1.02	1.81	1¼"	0.09
50	1½"	5028015	0.181	2.91	1.26	1.10	2.17	1½"	0.13
63	2"	5028020	0.228	3.15	1.38	1.22	2.56	2"	0.20
90	3" *	5028030	.323	4.00	1.00	1.63	3.54	3"	0.41
110	4" *	5028040	.394	4.00	1.00	1.73	4.50	4"	0.64

* Indicates Machined part, rated for 5 psi only.

All Dimensions are for reference only, and subject to change without prior notice.



**Polypropylene
Female Adapter**

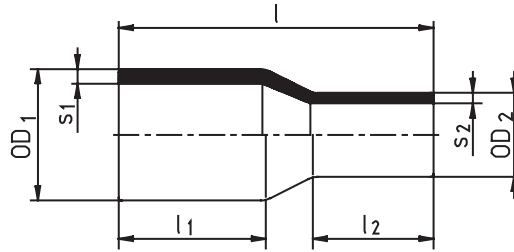
SIZE		PRO150 SDR11							
OD [mm]	OD [inch]	Asahi Part #	S (inch)	L (inch)	L ₁ (inch)	L ₂ (inch)	SW (inch)	NPT-Thread [inch]	Weight (lbs/pc)
20	½"	5030005	0.098	1.77	0.83	0.63	1.26	½"	0.03
25	¾"	5030007	0.106	1.97	0.98	0.67	1.61	¾"	0.05
32	1"	5030010	0.114	2.28	1.18	0.79	1.81	1"	0.08
40	1¼"	5030012	0.146	2.44	1.18	0.94	2.17	1¼"	0.13
50	1½"	5030015	0.181	2.68	1.34	0.94	2.76	1½"	0.21
63	2"	5030020	0.228	2.95	1.42	1.10	3.35	2"	0.33
90	3" *	5030030	0.323	4.00	1.63	2.37	4.30	3"	0.64
110	4" *	5030040	0.394	4.00	1.73	2.27	5.43	4"	0.81

* Indicates Machined part, rated for 5 psi only.

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

Polypropylene
Extended Leg
Concentric Reducer

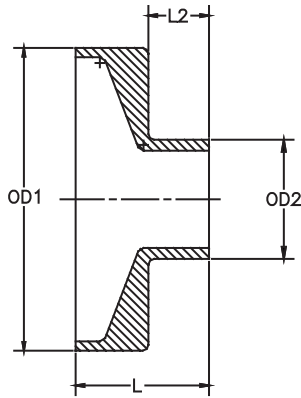


PRO150 SDR11						
SIZE		Asahi Part #	l ₁ (inch)	l ₂ (inch)	l (inch)	Weight (lbs)
OD ₁ / OD ₂ [mm]	OD ₁ / OD ₂ [inch]					
25 / 20	¾" / ½"	5038101	1.57	1.61	3.43	0.02
32 / 20	1" / ½"	5038130	1.69	1.54	3.62	0.04
32 / 25	1" / ¾"	5038131	1.73	1.54	3.62	0.04
40 / 20	1¼" / ½"	5038166	1.89	1.54	4.02	0.09
40 / 25	1¾" / ¾"	5038167	1.89	1.54	4.02	0.09
40 / 32	1¼" / 1"	5038168	1.89	1.77	4.02	0.09
50 / 25	1½" / ¾"	5038210	2.17	1.73	4.65	0.11
50 / 32	1½" / 1"	5038211	2.32	1.81	4.65	0.13
50 / 40	1½" / 1¼"	5038212	2.24	1.93	4.96	0.15
63 / 32	2" / 1"	5038249	2.52	1.93	5.35	0.22
63 / 40	2" / 1¼"	5038250	2.32	1.97	5.04	0.22
63 / 50	2" / 1½"	5038251	2.60	2.32	5.91	0.29
75 / 50	2½" / 1½"	5038291	2.52	2.28	5.83	0.35
75 / 63	2½" / 2"	5038292	2.56	2.32	5.87	0.42
90 / 63	3" / 2"	5038338	2.83	2.36	6.18	0.55
90 / 75	3" / 2½"	5038339	2.95	2.48	6.42	0.62
110 / 63	4" / 2"	5038420	3.27	2.48	7.09	0.88
110 / 90	4" / 3"	5038422	3.27	2.95	7.09	1.08
160 / 90	6" / 3"	5038531	4.02	2.91	8.74	2.20
160 / 110	6" / 4"	5038532	3.86	3.46	8.86	2.47
200 / 160	8" / 6"	5038585	4.41	4.02	9.92	4.76

All Dimensions are for reference only, and subject to change without prior notice.

Proline™ Polypropylene
Single Wall Piping System

**Polypropylene
Machined
Concentric Reducer**

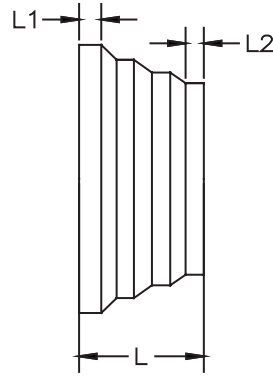


SIZE	PRO150 SDR11	PRO45 SDR33	PRO45/150 SDR33/11	DIMENSIONS			
				OD1 [mm]	OD2 [mm]	L [mm]	L ₂ [mm]
6/2	5032530	NA	-	6.30	2.48	3.00	1.00
6/3	5032531	NA	-	6.30	3.54	3.00	1.00
6/4	5032532	5115532	C.F.	6.30	4.33	3.00	1.00
8/2	5032581	NA	-	7.87	2.48	3.00	1.00
8/3	5032582	NA	-	7.87	3.54	3.00	1.00
8/4	5032583	5115583	C.F.	7.87	4.33	3.00	1.00
8/6	5032585	5115585	C.F.	7.87	6.30	3.00	1.00
10/2	5032624	NA	-	9.84	2.48	3.00	1.00
10/3	5032625	NA	-	9.84	3.54	3.00	1.00
10/4	5032626	5115626	C.F.	9.84	4.33	3.00	1.00
10/6	5032627	5115627	C.F.	9.84	6.30	3.00	1.00
10/8	5032628	5115628	C.F.	9.84	7.87	3.00	1.00
12/2	5032656	NA	-	12.40	2.48	3.50	1.25
12/3	5032657	NA	-	12.40	3.54	3.50	1.25
12/4	5032658	5115658	C.F.	12.40	4.33	3.50	1.25
12/6	5032659	5115659	C.F.	12.40	6.30	3.50	1.25
12/8	5032660	5115660	C.F.	12.40	7.87	3.50	1.25
12/10	5032673	5115673	C.F.	12.40	9.84	3.50	1.25

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

**Polypropylene
Molded Stepped
Concentric Reducer**

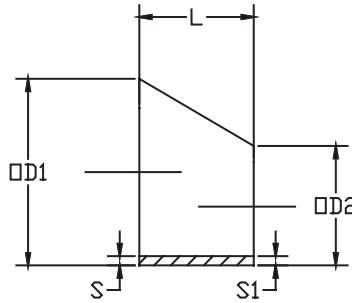


Proline™ Polypropylene
Single Wall Piping System

SIZE		PRO45 SDR33				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	L ₁ (inch)	L ₂ (inch)	Weight (lbs)
110 / 63	4" x 2"	5116420	2.44	0.35	0.24	0.13
160 / 110	6" x 4"	5116532	3.27	0.51	0.51	0.35
225 / 160	9" x 6"	5116606	3.54	0.71	0.55	0.86
315 / 225	12" x 9"	5116670	5.12	0.98	0.79	2.51
450 / 315	18" x 12"	5116711	6.69	1.07	0.79	6.97
630 / 450	24" x 18"	5116742	7.40	1.18	0.79	14.57
SIZE		PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	L ₁ (inch)	L ₂ (inch)	Weight (lbs)
63 / 16	2" x 3/8"	5035247	3.82	0.39	0.31	0.09
110 / 63	4" x 2"	5035420	2.44	0.35	0.24	0.31
160 / 110	6" x 4"	5035532	3.27	0.51	0.51	0.93
225 / 160	9" x 6"	5035606	3.54	0.71	0.55	2.07
315 / 225	12" x 9"	5035670	5.12	0.98	0.79	6.00
450 / 315	18" x 12"	5035711	6.69	1.06	0.79	16.79

All Dimensions are for reference only, and subject to change without prior notice.

**Polypropylene
Molded Short
Eccentric Reducer**

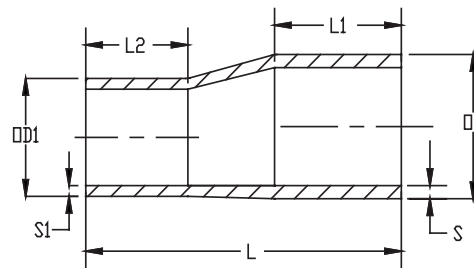


SIZE		PRO45 SDR33				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	OD ₁ (inch)	OD ₂ (inch)	Weight (lbs)
250 / 160	10" x 6"	5113627	6.10	9.84	6.30	1.43
355 / 250	14" x 10"	5113632	7.87	13.98	9.84	4.50
SIZE		PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part #	L (inch)	OD ₁ (inch)	OD ₂ (inch)	Weight (lbs)
160 / 110	6" x 4"	5033532	3.54	6.30	4.33	0.62
250 / 160	10" x 6"	5033627	6.10	9.84	6.30	3.79
355 / 250	14" x 10"	5033632	7.87	13.98	9.84	9.92

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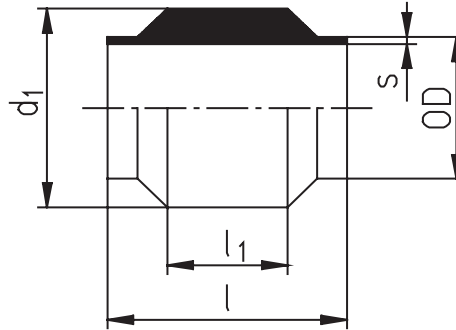
IR/Butt Fittings

**Polypropylene
Molded Ext. Leg
Concentric Reducer**



PRO150 SDR11						
SIZE		Asahi Part #	L ₁ (inch)	L ₂ (inch)	L (inch)	Weight (lbs)
OD (mm)	OD (inch)					
25 / 20	¾" / ½"	5037101	2.00	1.50	4.05	0.04
32 / 25	1" / ¾"	5037131	2.20	1.57	4.49	0.06
40 / 25	1¼" / ¾"	5037167	2.36	1.57	4.96	0.08
40 / 32	1¼" / 1"	5037168	2.32	1.73	4.92	0.09
50 / 32	1½" / 1"	5037211	2.80	1.77	6.14	0.14
50 / 40	1½" / 1¼"	5037212	2.80	1.93	6.18	0.16
63 / 32	2" / 1"	5037249	2.95	1.77	6.97	0.21
63 / 40	2" / 1¼"	5037250	2.99	1.93	6.97	0.23
63 / 50	2" / 1½"	5037251	2.99	2.20	6.97	0.29
75 / 50	2½" / 1½"	5037291	3.30	2.24	7.76	0.35
75 / 63	2½" / 2"	5037292	3.26	2.48	7.76	0.41
90 / 63	3" / 2"	5037338	3.62	2.52	8.39	0.58
90 / 75	3" / 2½"	5037339	3.15	2.76	8.78	0.63
110 / 63	4" / 2"	5037420	3.90	2.48	9.72	0.92
110 / 90	4" / 3"	5037422	3.89	3.11	9.60	1.07
160 / 90	6" / 3"	5037531	4.63	3.11	12.17	2.25
160 / 110	6" / 4"	5037532	4.55	3.43	12.17	2.57
200 / 160	8" / 6"	5037585	5.45	4.09	14.68	4.98

All Dimensions are for reference only, and subject to change without prior notice.



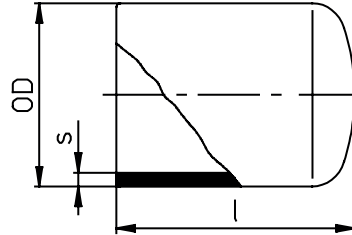
**Polypropylene
Machined
Instrumentation Fitting**

SIZE		DIMENSIONS			PRO45 SDR 33			PRO150 SDR 11		
OD [mm]	OD [inch]	d ₁ (inch)	l (inch)	l ₁ (inch)	Asahi Part #	s (inch)	Weight (lbs)	Asahi Part #	s (inch)	Weight (lbs)
20	½"	1.90	7.00	2.50	N/A			5058005	0.098	0.93
25	¾"	2.36	7.00	3.00	N/A			5058007	0.228	1.30
32	1"	2.65	7.00	3.00	N/A			5058010	0.114	1.38
63	2"	3.06	7.00	3.00	N/A			5058020	0.228	2.10
90	3"	3.30	7.00	3.00	N/A			5058030	0.323	3.25
110	4"	4.48	7.00	3.00	5124040	0.134	4.75	5058040	0.394	4.99
160	6"	5.00	7.00	3.00	5124060	0.193	5.75	5058060	0.575	5.87

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

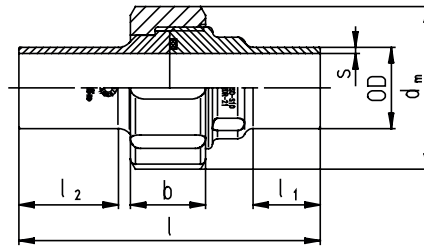
**Polypropylene
Molded Extended Leg
End Cap**



PRO150 SDR11				
SIZE		Asahi Part #	L (inch)	Weight (lbs/pc.)
OD [mm]	OD [inch]			
20	½"	5021005	1.85	0.02
25	¾"	5021007	1.93	0.02
32	1"	5021010	2.20	0.04
40	1¼"	5021012	2.52	0.07
50	1½"	5021015	2.87	0.11
63	2"	5021020	3.31	0.20
75	2½"	5021025	3.66	0.31
90	3"	5021030	4.29	0.53
110	4"	5021040	5.28	1.01
160	6"	5021060	6.57	2.51
200	8"	5021080	7.13	4.32
250	10"	5021100	9.06	8.29
315	12"	5021120	10.31	15.45

All Dimensions are for reference only, and subject to change without prior notice.

**Polypropylene
Type G Union**

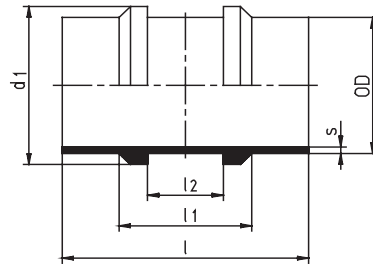


PRO 150 SDR 11								
SIZE		s (inch)	l (inch)	l ₁ (inch)	d _m (inch)	b (inch)	Asahi Part # with Viton O-Ring	Weight (lbs/pc.)
OD [mm]	OD [inch]							
20	½"	0.098	4.21	0.94	1.85	0.94	5017005	0.11
25	¾"	0.106	4.40	0.94	2.24	1.02	5017007	0.18
32	1"	0.114	4.69	0.98	2.52	1.18	5017010	0.24
40	1¼"	0.146	4.92	0.98	3.07	1.22	5017012	0.37
50	1½"	0.181	5.12	0.98	3.50	1.38	5017015	0.53
63	2"	0.228	5.35	0.98	4.29	1.54	5017020	0.86

All Dimensions are for reference only, and subject to change without prior notice.

Type G Unions with EPDM O-Rings are optional. Consult Factory for availability.

IR/Butt Fittings

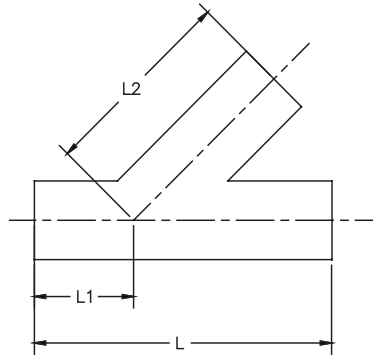


**Polypropylene
Restraint Fitting**

PRO150 SDR11							
SIZE		Asahi Part#	d_1 (inch)	L (inch)	L_1 (inch)	L_2 (inch)	Weight (lbs)
OD [mm]	OD [inch]						
20	½"	5059005	1.10	3.70	2.09	1.28	0.88
25	¾"	5059007	1.30	3.70	2.09	1.28	1.25
32	1"	5059010	1.57	3.70	2.09	1.28	1.32
40	1 ¼"	5059012	1.89	3.70	2.09	1.28	1.43
50	1 ½"	5059015	2.28	4.50	2.09	1.28	1.76
63	2"	5059020	2.80	4.50	1.97	1.20	1.98
90	3"	5059030	4.13	5.00	2.76	1.57	3.09
110	4"	5059040	5.00	5.00	2.76	2.38	4.72

All Dimensions are for reference only, and subject to change without prior notice.

**Polypropylene
Fabricated* Laterals**



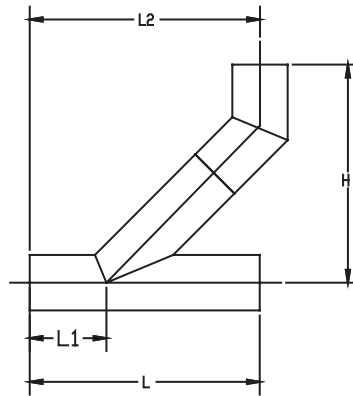
SIZE		PRO45 SDR33				PRO150 SDR11			
OD [mm]	OD [inch]	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	Asahi Part#	L ₁ (inch)	L ₂ (inch)	L (inch)
50	1 ½"	N/A	N/A	N/A	N/A	5051015	6	12	18
63	2"	N/A	N/A	N/A	N/A	5051020	6	12	18
75	2 ½"	N/A	N/A	N/A	N/A	5051025	6	12	18
90	3"	N/A	N/A	N/A	N/A	5051030	6	12	18
110	4"	5128040	18	6	12	5051040	6	12	18
160	6"	5128060	24	8	16	5051060	8	16	24
200	8"	5128080	30	10	20	5051080	10	20	30
250	10"	5128100	36	12	24	5051100	12	24	36
315	12"	5128120	42	14	28	5051120	14	28	42
355	14"	5128140	48	16	32	5051140	16	32	48
400	16"	5128160	54	18	36	5051160	18	36	54

**Fabricated Fittings are rated for drainage application pressures. Elevated pressures (20', 30' or 40' of head pressure, for example) can be approved in advance, but need to be approved by factory in advance*

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

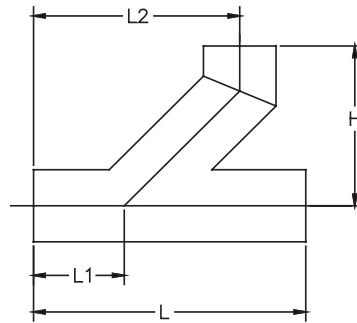
Polypropylene
Fabricated* Laterals
w/ 1/8 Bend



SIZE		PRO45 SDR33					PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)
50	1 ½"	N/A	N/A	N/A	N/A	N/A	5062015	18	6	16.25	13
63	2"	N/A	N/A	N/A	N/A	N/A	5062020	18	6	16.5	13.5
75	2 ½"	N/A	N/A	N/A	N/A	N/A	5062025	18	6	16.75	14.25
90	3"	N/A	N/A	N/A	N/A	N/A	5062030	18	6	17.25	15.25
110	4"	5137040	18	6	18	17	5062040	18	6	17.25	15.5
160	6"	5137060	24	8	23.5	21.5	5062060	24	8	23.5	21.75
200	8"	5137080	30	10	28.25	24.25	5062080	30	10	28.5	25.5
250	10"	5137100	36	12	33	27	5062100	36	12	34.75	31.25
315	12"	5137120	42	14	39.25	33.25	5062120	42	14	39.25	33.25
355	14"	5137140	48	16	45.5	39.5	5062140	48	16	45.5	39.5
400	16"	5128160	54	18	51.75	45.75	5062160	54	18	51.75	45.75

*Fabricated Fittings are rated for drainage application pressures. Elevated pressures (20', 30' or 40' of head pressure, for example) can be approved in advance, but need to be approved by factory in advance

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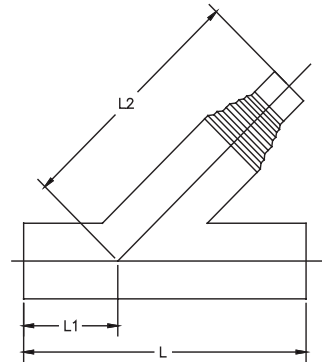
**Polypropylene
Fabricated* Sanitary Tee**

SIZE		PRO45 SDR33					PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)
63	2"	N/A	N/A	N/A	N/A	N/A	5057020	18	6	12	9
90	3"	N/A	N/A	N/A	N/A	N/A	5057030	18	6	12	9
110	4"	5133040	18	6	12	9	5057040	18	6	12	9
160	6"	5133060	24	8	16	12.5	5057060	24	8	16	12.5
200	8"	5133080	30	10	20	15.5	5057080	30	10	20	15.5
250	10"	5133100	36	12	24	18.5	5057100	36	12	24	18.5
315	12"	5133120	42	14	28	21.75	5057120	42	14	28	21.75
355	14"	5133140	48	16	32	24.25	5057140	48	16	32	24.25
400	16"	5133160	54	18	36	28	5057160	54	18	36	28

**Fabricated Fittings are rated for drainage application pressures. Elevated pressures (20', 30' or 40' of head pressure, for example) can be approved in advance, but need to be approved by factory in advance*

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings



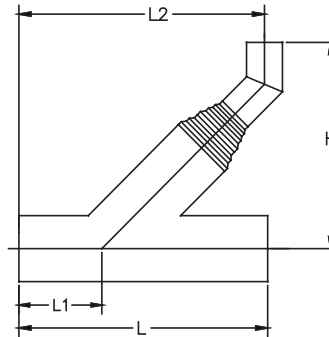
**Polypropylene
Fabricated* Reducing Laterals**

SIZE		PRO45 SDR33				PRO150 SDR33			
OD [mm]	OD [inch]	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)
90x63	3"x2"	N/A	N/A	N/A	N/A	5054338	18	6	16
110x63	4"x2"	N/A	N/A	N/A	N/A	5054420	18	6	17
110x90	4"x3"	N/A	N/A	N/A	N/A	5054422	18	6	17
160x90	6"x3"	N/A	N/A	N/A	N/A	5054531	24	8	22
160x110	6"x4"	5130532	24	8	22	5054532	24	8	22
200x110	8"x4"	5130583	30	10	23	5054583	30	10	27
200x160	8"x6"	5130585	30	10	22.5	5054585	30	10	27
250x110	10"x4"	5130626	36	12	33	5054626	36	12	33
250x160	10"x6"	5130627	36	12	30	5054627	36	12	30
250x200	10"x8"	5130628	36	12	28	5054628	36	12	28
315x160	12"x6"	5130659	42	14	37	5054659	42	14	37
315x200	12"x8"	5130660	42	14	35	5054660	42	14	35

**Fabricated Fittings are rated for drainage application pressures. Elevated pressures (20', 30' or 40' of head pressure, for example) can be approved in advance, but need to be approved by factory in advance*

All Dimensions are for reference only, and subject to change without prior notice.

**Polypropylene
Fabricated* Reducing Laterals
w/ 1/8 Bend**

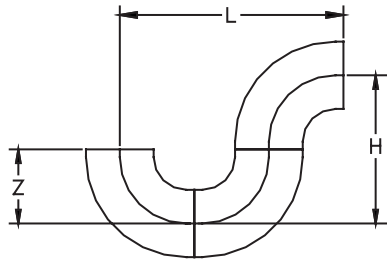


SIZE		PRO45 SDR33					PRO150 SDR11				
OD [mm]	OD [inch]	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)	Asahi Part#	L (inch)	L ₁ (inch)	L ₂ (inch)	H (inch)
90x63	3"x2"	N/A	N/A	N/A	N/A	N/A	5056338	18	6	16	16.5
110x63	4"x2"	N/A	N/A	N/A	N/A	N/A	5056420	18	6	17	17.5
110x90	4"x3"	N/A	N/A	N/A	N/A	N/A	5056422	18	6	17	19
160x90	6"x3"	N/A	N/A	N/A	N/A	N/A	5056531	24	8	22	22.5
160x110	6"x4"	5122532	24	8	22	21.5	5056532	24	8	22	23
200x110	8"x4"	5122583	30	10	23	22.5	5056583	30	10	27	23.5
200x160	8"x6"	5122585	30	10	22.5	24	5056585	30	10	27	29.5
250x110	10"x4"	5122626	36	12	33	29.5	5056626	36	12	33	28.5
250x160	10"x6"	5122627	36	12	30	29	5056627	36	12	30	29.5
250x200	10"x8"	5122628	36	12	28	27.5	5056628	36	12	28	29
315x160	12"x6"	5122659	42	14	37	34	5056659	42	14	37	34.5
315x200	12"x8"	5122660	42	14	35	32.5	5056660	42	14	35	34

*Fabricated Fittings are rated for drainage application pressures. Elevated pressures (20', 30' or 40' of head pressure, for example) can be approved in advance, but need to be approved by factory in advance

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings



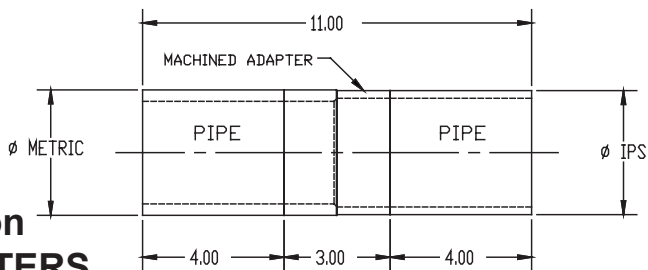
Polypropylene
P-Trap

Size (inch)	PRO45 SDR33				PRO150 SDR11			
	Asahi Part#	L (inch)	Z (inch)	H (inch)	Asahi Part#	L (inch)	Z (inch)	H (inch)
1-1/2	N/A	N/A	N/A	N/A	5064338	8.75	4-1/4	8.125
2	N/A	N/A	N/A	N/A	5064420	10.75	5.00	9.75
2-1/2	N/A	N/A	N/A	N/A	5064422	12.5	5-7/8	11.375
3	N/A	N/A	N/A	N/A	5064531	14.5	6-1/2	12.875
4	5139532	14	4.75	11.25	5064532	17.125	7-3/8	14.5
6	5139583	20.5	6.875	16.75	5064583	24	10	19.75
8	5139585	25.75	8.625	21	5064585	28.75	12-1/4	24.25
10	5139626	34	11.375	27.5	5064626	33.375	11-1/4	22.25
12	5139627	39.75	13.375	32.75	5064627	39.75	13-3/8	26.5

NOTE: PRO150 P-TRAPS SIZES 1-1/2"
THRU 8" DIM'S REFLECT NEW STYLE 90'S (5007
P/N)

All Dimensions are for reference only, and subject to change without prior notice.

**Polypropylene
Machined – Butt Fusion
PROLINE X IPS ADAPTERS**



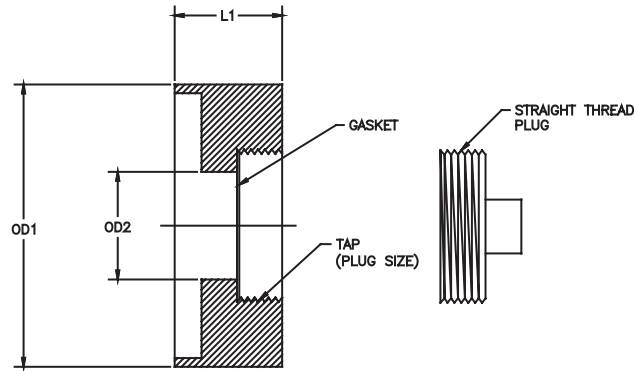
SIZE	Asahi Part #	DESCRIPTION
OD (inch)		
PRO150		
1-1/2	5067015	1-1/2" PRO150 X 1-1/2" IPS SCH40X80 ADAPTER
2	5067020	2" PRO150 X 2" IPS SCH40X80 ADAPTER
3	5067030	3" PRO150 X 3" IPS SCH40X80 ADAPTER
4	5067040	4" PRO150 X 4" IPS SCH40X80 ADAPTER
6	5067060	6" PRO150 X 6" IPS SCH40X80 ADAPTER
PRO45		
4	5042040	4" PRO45 X 4" IPS SCH40X80 ADAPTER
6	5042060	6" PRO45 X 6" IPS SCH40X80 ADAPTER

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

Proline™ Polypropylene
Single Wall Piping System

**Polypropylene
Cleanout with Plug**

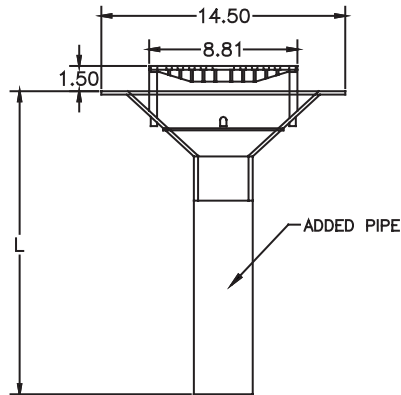


SIZE		Asahi Part # PRO45	Asahi Part # PRO150	OD1 (Inch)	OD2 (Inch)	L1 (Inch)	L2 (Inch)	TAP DEPTH (Inch)
OD (mm)	OD (inch)							
110	4	5148040	5066040	4.33	2.00	3.00	0.63	1.12
160	6	5145060	5066060	6.30	3.00	3.00	0.63	1.26
200	8	5148080	5066080	7.87	3.00	3.00	0.63	1.26
250	10	5145100	5066100	9.84	5.00	3.00	0.63	1.52
315	12	5148120	5066120	12.40	5.00	3.00	0.63	1.52

*NOTE: 3" AND UNDER USE A FEMALE ADAPTOR WITH THREADED PLUG NPT.
ALL CLEANOUTS ARE PRESSURE RATED FOR 5PSI (DRAINAGE).*

All Dimensions are for reference only, and subject to change without prior notice.

TYP. FLOOR DRAIN ASSEMBLY



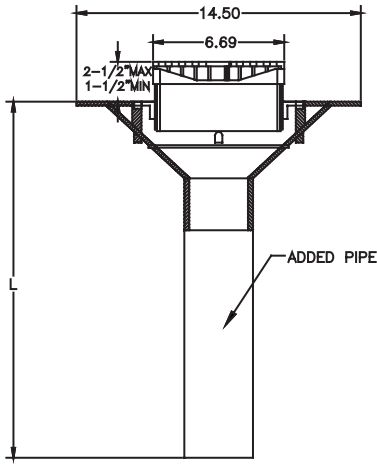
**Polypropylene
Non-Adjustable Floor Drain**

OD [mm]	OD [inch]	Asahi Part # PRO45	Asahi Part # PRO150	L (inch)
63	2"	N/A	5268020	18
90	3"	N/A	5268030	18
110	4"	5362040	5268040	18
160	6"	5362060	5268060	18

All Dimensions are for reference only, and subject to change without prior notice.

IR/Butt Fittings

Proline™ Polypropylene
Single Wall Piping System



**Polypropylene
Adjustable Floor Drain**

OD [mm]	OD [inch]	Asahi Part # PRO45	Asahi Part # PRO150	L (inch)
63	2"	N/A	5266020	18
90	3"	N/A	5266030	18
110	4"	5360040	5266040	18
160	6"	5360060	5266060	18

All Dimensions are for reference only, and subject to change without prior notice.

WARRANTY

Warranty; Limitation on Liability. Asahi/America, Inc., (“Seller”) warrants, to the original Buyer only, that all products delivered hereunder shall be free from defects in design and manufacture for a period of one year from the date of delivery, provided that such products are installed, used, operated, adjusted and serviced only in a proper and appropriate manner and in strict accordance with any instructions relating thereto furnished to Buyer by Seller. In no event shall the foregoing warranty extend to any products in any way caused or allowed to be, or installed, operated or used in such a manner as to be, subject or exposed to conditions of misuse, abuse or accident.

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Liability of the Seller under or in connection with this sale and/or the foregoing warranty shall be limited, at the sole option of the Seller, to one repair of, replacement of, or a refund of the purchase price of any products or part thereof (a), with respect to which Seller receives, promptly after Buyer’s discovery of any alleged defect and prior to the expiration of the one-year warranty period as provided above, notice from Buyer or Buyer’s claim defect and (b) which shall be returned to Seller by Buyer, as provided herein, promptly after Buyer’s discovery of such alleged defect and which shall be determined by the Seller to have proven defective within the one-year warranty period provided above; failure by Buyer to notify Seller and return such products to Seller after Buyer’s discovery of such alleged defect shall constitute a waiver by Buyer of any and all claims of any kind with respect thereto. Any products returned by Buyer to Seller under the foregoing terms shall be returned to Seller’s place of business freight prepaid, accompanied or preceded by Buyer’s particularized statement of the claimed defect. The risk of loss and freight charges to and from Seller in connection with any returned products shall be borne by Buyer; but Seller shall bear such additional freight charges arising in connection with any such returned products ultimately determined by Seller to be defective under the terms of the foregoing warranty, the cost of repair or replacement (if any) of such products, and the risk of loss or damage which such products are in Seller’s possession at its place of business. The foregoing remedy shall constitute the sole and exclusive remedy of the Buyer under or in connection with this sale and/or warranty of the Seller. Except as specifically provided herein, Seller shall not be responsible or liable for any costs, expenses or damages of Buyer in connection with any removal, repair or replacement (including any attempts or actions relating thereto) of any allegedly defective products, and no charge of setoff of any kind of Buyer relating thereto shall be made against the Seller without prior and specific written approval of Seller.

IN NO EVENT SHALL SELLER BE RESPONSIBLE OR LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING IN ANY WAY IN CONNECTION WITH ANY PRODUCTS OR THIS SALE.

The agreement of Seller to sell its products is expressly conditioned upon the Buyer’s assent to, and Seller agrees to sell its products only upon, all terms and conditions set forth above and on the face hereof. Buyer’s acceptance of any products provided under this sale shall constitute such assent.

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