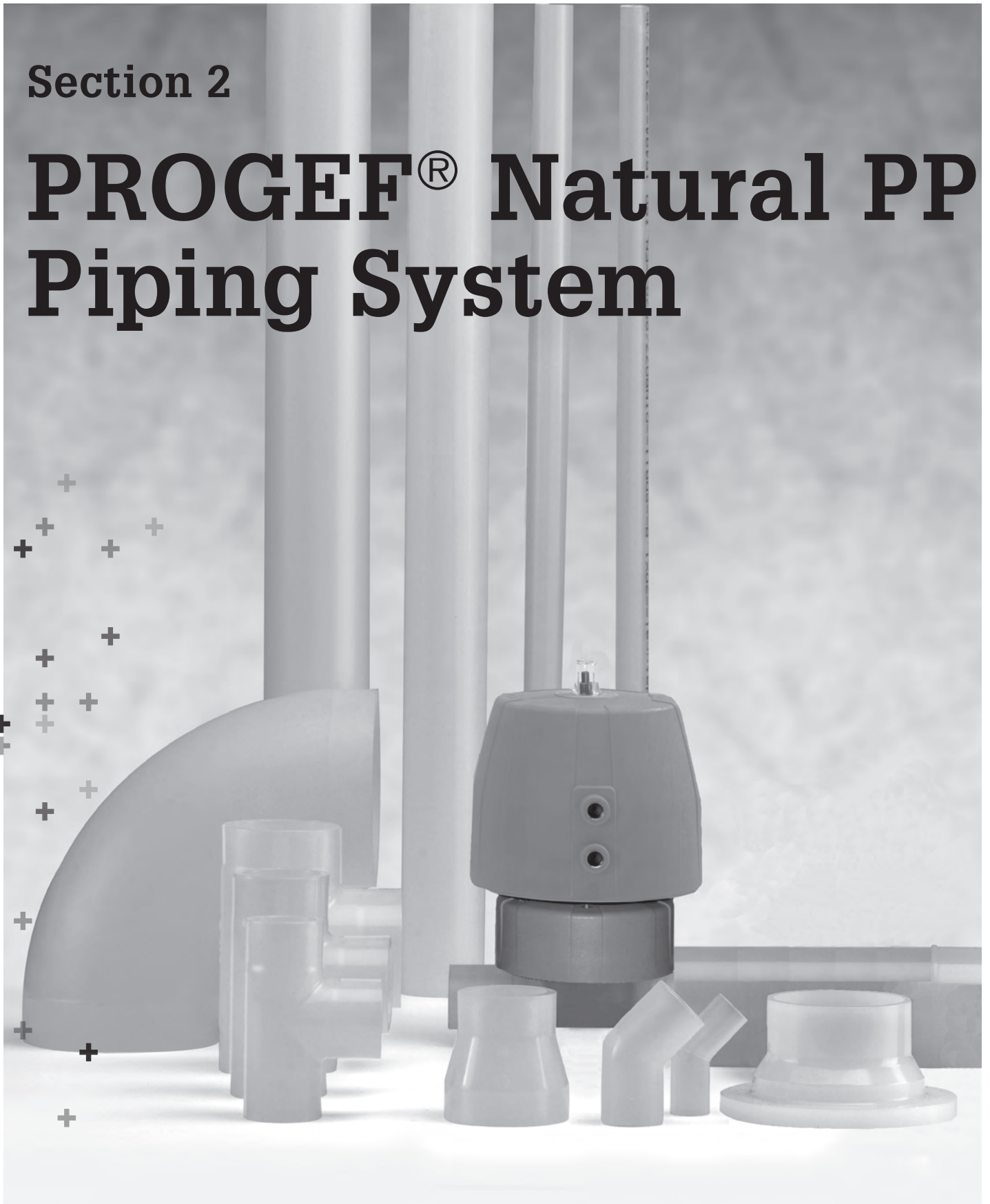


Section 2

PROGEF[®] Natural PP Piping System



PROGEF Natural – System Specification

Material	Polypropylene Random Copolymer
Color	Unpigmented, translucent
Density	~0.90 g/cm ³ (ISO 1183 / ASTM D 792)
Surface tension	30–35 mJ/m ²
Linear expansion coefficient	0.16–0.18 mm/mK (DIN 53752))
E-modulus	900 N/mm ² (ISO 527 / ASTM D 790)
Thermal conductivity	0.23 W/mK (EN 12664)
Surface resistivity	> 10 ¹⁶ Ω (IEC 60093)
Dimension	d 20–d 90 in accordance with EN ISO 15494
Pressure Rating	Pipes/Fittings/Diaphragm valves: d 20–d 63 SDR11, PN10 (150 PSI), c = 2.0 d 75–d 110 SDR17.6, PN6 (90 PSI), c = 2.0
Temperature Rating	from 0 °C to 80 °C (<60 °C for valves) (32 °F–176 °F)
Production	Fittings/valves: injection molded Pipes: extruded
Surface Finish	Inner surface Ra ≤ 1 μm (39 μin)
Marking	Fittings, pipes and valves are embossed with a permanent identification during the production process to ensure full traceability: Lot No Material Dimension Pressure Rating
Testing and Inspection (EN ISO 15494)	Inclusions Visual inspection Surface finish Dimension tolerance Pressure testing Full product range passed the Initial Type Test (ITT)
Approvals/Conformance ⁽¹⁾	FDA CFR 21 177.1520 USP 25 class VI (physiological non-toxic)
Welding Technology	BCF Plus, bead and crevice free fusion IR Plus, infrared fusion (DVS 2207-6) Butt fusion (DVS 2207-11)
Documentation ⁽²⁾	Certificate of Conformance with FDA, USP EN 10204 2.2 EN 10204 3.1 ASME BPE
Packing	Pipes: Capped & single bagged Fittings/valves: Bulk bagged; quantities vary
Labeling	Brand Name Product Description Code Number Material Dimension CE-labeling Approvals
Main Applications	Uses include cost effective, pure distribution of DI-water and critical biological fluids where chemical sanitization is needed. Bead and Crevice Free jointing and minimal metallic leachout ensure the highest product quality.
	⁽¹⁾ For thermoplastic material only ⁽²⁾ On request

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Pipe for IR Plus/BCF Plus Fusion

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IR Plus Fusion/BCF Plus Fusion Fittings

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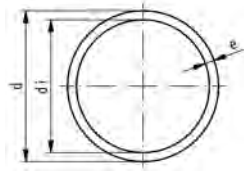


Manual Valves

154

Pipe for IR Plus/BCF Plus Fusion

A



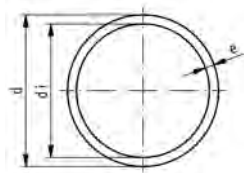
Pipe, PN 10, Natural PP

Model:

- PP-R material, translucent / unpigmented color
- Supplied in 5m lengths
- Single bagged with both ends capped

Note	d (mm)	Part No.	USD / m	lbs/meter	e (mm)	di (mm)	closest inch (inch)
	20	* 168 480 151	7.15	0.236	1.9	16.2	1/2
	25	* 168 480 152	8.29	0.362	2.3	20.4	3/4
	32	* 168 480 153	10.67	0.575	2.9	26.2	1
	40	* 168 480 154	18.86	0.908	3.7	32.6	1 1/4
	50	* 168 480 155	22.38	1.407	4.6	40.8	1 1/2
	63	* 168 480 156	34.09	2.227	5.8	51.4	2

A



Pipe, PN 6, Natural PP

Model:

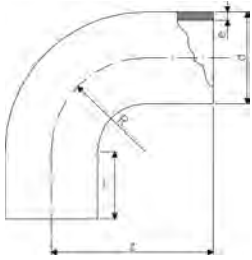
- Material: PP-R unpigmented
- colour: natural
- Supplied in 5m (16.4 foot) length

d (mm)	Part No.	USD / m	lbs/meter	e (mm)	di (mm)	closest inch (inch)
90	* 168 480 283	81.14	2.932	5.1	79.8	3

IR Plus Fusion/BCF Plus Fusion Fittings

A

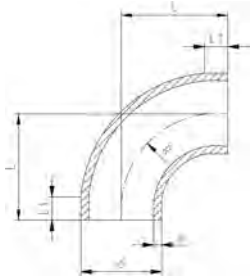
90° Elbow Sweep Radius, PN 10, Natural PP



d (mm)	FM	Part No.	USD weight (kg)	z (mm)	L (mm)	R (mm)	e (mm)	
20	BCF, IR	728 018 606	14.72	0.007	38	23	15	1.9
25	BCF, IR	728 018 607	14.72	0.012	42	23	19	2.3
32	BCF, IR	728 018 608	14.72	0.026	46	22	24	2.9
40	BCF, IR	^ 728 018 609	19.59	0.038	51	21	30	3.7
50	BCF, IR	728 018 610	21.24	0.065	58	21	37	4.6
63	BCF, IR	728 018 611	27.05	0.115	66	21	45	5.8

A

90° Elbow Sweep Radius, PN 6, Natural PP

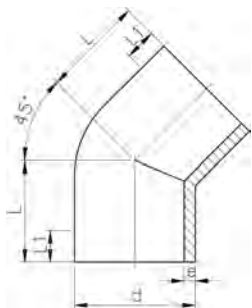


d (mm)	FM	Part No.	USD weight (kg)	L (mm)	L1 (mm)	e (mm)	R (mm)	
90	BCF, IR	728 018 413	78.86	0.225	100	20	5.1	90

A

45° Elbow, PN 10, Natural PP

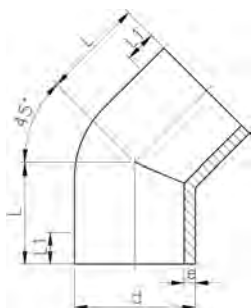
d (mm)	FM	Part No.	USD weight (kg)	L (mm)	L1 (mm)	e (mm)	
20	BCF, IR	728 158 506	13.47	0.007	32	24	1.9
25	BCF, IR	728 158 507	13.47	0.002	34	25	2.3
32	BCF, IR	728 158 508	16.48	0.019	36	25	2.9
40	BCF, IR	^ 728 158 509	20.00	0.037	39	25	3.7
50	BCF, IR	728 158 510	22.38	0.054	42	26	4.6
63	BCF, IR	728 158 511	37.62	0.097	47	29	5.8



A

45° Elbow, PN 6, Natural PP

d (mm)	FM	Part No.	USD weight (kg)	L (mm)	L1 (mm)	e (mm)	
90	BCF, IR	728 158 413	103.63	0.164	57	21	5.1



A



Tee, PN 10, Natural PP

d (mm)	FM	Part No.	USD weight (lb)	e (mm)	L (mm)	L1 (mm)	
20	BCF, IR	728 208 506	8.60	0.024	1.9	38	24
25	BCF, IR	728 208 507	9.84	0.040	2.3	42	26
32	BCF, IR	728 208 508	9.84	0.071	2.9	46	26
40	BCF, IR	^ 728 208 509	21.24	0.130	3.7	51	23
50	BCF, IR	728 208 510	29.43	0.223	4.6	58	22
63	BCF, IR	728 208 511	36.48	0.401	5.8	66	20

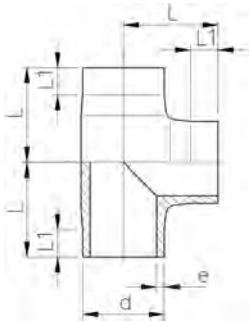


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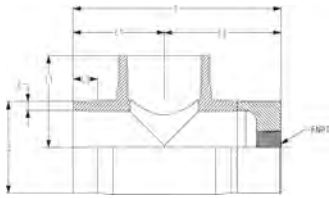


Tee, PN 6, Natural PP

d (mm)	FM	Part No.	USD weight (kg)	L (mm)	L1 (mm)	e (mm)	
90	BCF, IR	728 208 413	92.95	0.401	90	20	5.1



B Analytical Threaded Sensor, PN 10/PN 6, Natural PP



d (mm)	FNPT (inch)	FM	Part No.	USD	e (mm)	L (mm)	L1 (mm)	L2 (mm)
50	¼	BCF, IR	* 728 991 840	249.74	4.6	135	58	77
50	½	BCF, IR	* 728 991 841	249.74	4.6	135	58	77
50	¾	BCF, IR	* 728 991 842	249.74	4.6	135	58	77
50	1	BCF, IR	* 728 991 843	249.74	4.6	135	58	77
63	¼	BCF, IR	* 728 991 844	284.97	5.8	148	66	82
63	½	BCF, IR	* 728 991 845	284.97	5.8	148	66	82
63	¾	BCF, IR	* 728 991 846	284.97	5.8	148	66	82
63	1	BCF, IR	* 728 991 847	284.97	5.8	148	66	82
90	¼	BCF, IR	* 728 991 852	358.55	5.1	208	90	118
90	½	BCF, IR	* 728 991 853	358.55	5.1	208	90	118
90	¾	BCF, IR	* 728 991 854	358.55	5.1	208	90	118
90	1	BCF, IR	* 728 991 855	358.55	5.1	208	90	118

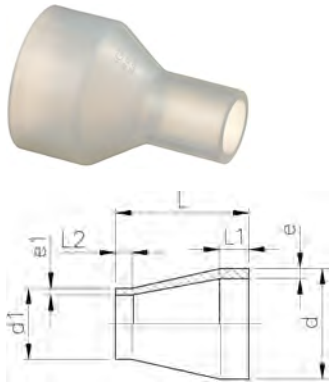
A Reducer, PN 10, Natural PP



d (mm)	d1 (mm)	FM	Part No.	USD	weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)
25	20	BCF, IR	728 908 537	13.47	0.007	50	20	20	2.3	1.9
32	20	BCF, IR	728 908 542	14.72	0.010	50	20	20	3.0	1.9
32	25	BCF, IR	728 908 541	14.72	0.011	50	20	20	3.0	2.3
40	20	BCF, IR	^ 728 908 548	21.24	0.015	58	20	23	3.7	1.9
40	25	BCF, IR	^ 728 908 547	21.24	0.016	55	20	20	3.7	2.3
40	32	BCF, IR	^ 728 908 546	21.24	0.019	55	20	20	3.7	2.9
50	25	BCF, IR	728 908 554	22.38	0.025	60	20	20	4.6	2.3
50	32	BCF, IR	728 908 553	22.38	0.027	60	20	20	4.6	2.9
50	40	BCF, IR	^ 728 908 552	22.38	0.030	60	20	20	4.6	3.7
63	32	BCF, IR	728 908 560	23.52	0.043	65	20	20	5.8	2.9
63	40	BCF, IR	^ 728 908 559	23.52	0.047	65	20	20	5.8	3.7
63	50	BCF, IR	728 908 558	23.52	0.052	65	20	20	5.8	4.6

A Reducer, PN 6, Natural PP

* 90mm side SDR17.6 - 63mm side SDR11



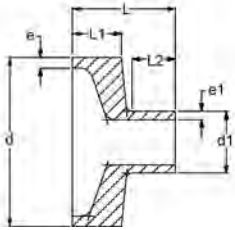
d (mm)	d1 (mm)	FM	Part No.	USD	weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	e1 (mm)	
*	90	63	BCF, IR	728 908 471	65.91	0.087	75	22	19	5.1	5.8

B

Flush Style Reducer, PN 10, Natural PP



d (mm)	d1 (mm)	FM	Part No.	USD	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
50	20	IR	* 728 909 607	150.26	4.6	1.9	52	24	25
63	20	IR	* 728 909 611	172.02	5.8	1.9	52	24	25
63	25	IR	* 728 909 612	172.02	5.8	2.3	52	23	26

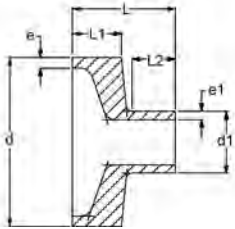


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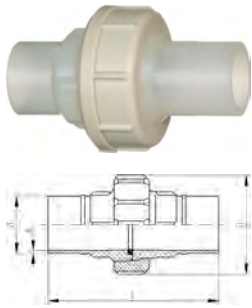
Flush Style Reducer, PN 6, Natural PP



d (mm)	d1 (mm)	FM	Part No.	USD	e (mm)	e1 (mm)	L (mm)	L1 (mm)	L2 (mm)
90	20	IR	* 728 909 622	276.68	5.1	1.9	63	32	25
90	25	IR	* 728 909 623	276.68	5.1	2.3	64	32	26
90	32	IR	* 728 909 624	276.68	5.1	2.9	65	32	26
90	40	IR	* 728 909 625	276.68	5.1	3.7	66	32	28
90	50	IR	* 728 909 626	276.68	5.1	4.6	67	32	28



A

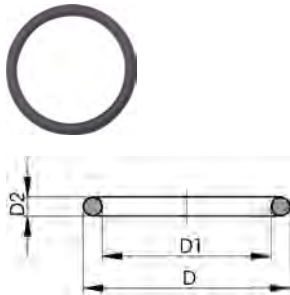


Union, PN 10, Natural PP

d (mm)	FM	EPDM Part No.	USD	FKM Part No.	USD	weight (lb)
20	BCF, IR	728 518 526	52.95	* 728 528 526	61.14	0.106
25	BCF, IR	728 518 527	61.14	* 728 528 527	70.57	0.168
32	BCF, IR	728 518 528	64.66	* 728 528 528	82.38	0.234
40	BCF, IR	^ 728 518 529	94.09	* 728 528 529	109.84	0.324
50	BCF, IR	728 518 530	109.84	* 728 528 530	133.68	0.428
63	BCF, IR	728 518 531	156.48	* 728 528 531	178.24	0.756

d (mm)	D (mm)	L (mm)	L1 (mm)	L2 (mm)	e (mm)
20	48	107	53	25	1.9
25	58	113	56	25	2.3
32	65	119	59	25	2.9
40	79	126	63	25	3.7
50	91	131	65	25	4.6
63	111	137	68	25	5.8

B



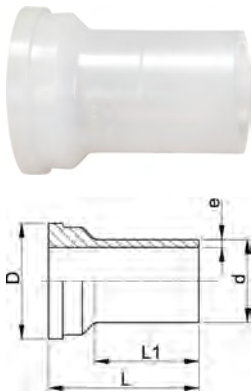
O-Ring Gasket

Model:

- Hardness approx. 65° Shore
- Suitable for unions with part numbers 728518526-531 and 728528526-531, respectively

d (mm)	Size (inch)	EPDM Part No.	USD	FKM Part No.	USD	D (mm)	D1 (mm)	D2 (mm)
20	½	* 748 410 140	2.28	* 749 410 140	3.63	20	15	2.62
25	¾	^ 748 410 006	3.10	^ 749 410 006	5.20	27	20	3.53
32	1	* 748 410 025	4.66	* 749 410 025	9.33	32	25	3.53
40	1 ¼	* 748 410 152	5.80	* 749 410 152	12.44	42	31	5.34
50	1 ½	748 410 009	6.20	749 410 009	16.60	51	41	5.34
63	2	* 748 410 171	8.08	* 749 410 171	20.73	61	50	5.34

B



Union End, PN 10, Natural PP

d (mm)	FM	Part No.	USD	weight (kg)	D (mm)	L (mm)	L1 (mm)	e (mm)
20	BCF, IR	728 608 506	12.50	0.004	30	53	35	1.9
25	BCF, IR	728 608 507	17.00	0.013	39	56	36	2.3
32	BCF, IR	728 608 508	17.00	0.024	45	59	38	2.9
40	BCF, IR	728 608 509	25.00	0.042	57	63	39	3.7
50	BCF, IR	728 608 510	26.00	0.055	63	65	41	4.6
63	BCF, IR	728 608 511	36.30	0.092	78	69	43	5.8

A



Union Bushing, PN 10, Natural PP

d (mm)	FM	Part No.	USD	weight (kg)	G (R/Rp BS Thread) (inch)	L (mm)	L1 (mm)	e (mm)
20	BCF, IR	* 728 648 526	34.09	0.012	1	54	26	1.9
25	BCF, IR	* 728 648 527	38.86	0.020	1 1/4	57	26	2.3
32	BCF, IR	* 728 648 528	41.24	0.029	1 1/2	60	25	2.9
40	BCF, IR	* 728 648 529	50.57	0.047	2	63	25	3.7
50	BCF, IR	* 728 648 530	68.19	0.072	2 1/4	66	25	4.6
63	BCF, IR	* 728 648 531	80.00	0.104	2 3/4	69	25	5.8

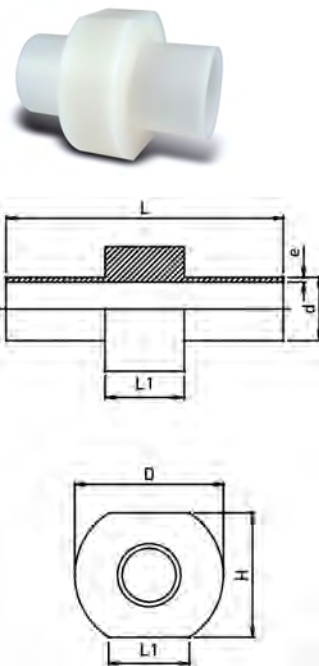
B



Union Nut, PN 10, Standard PP

Socket Fusion d (mm)	Butt Fusion d (mm)	G (R/Rp BS Thread) (inch)	Part No.	USD	D (mm)	L (mm)
16	16	3/4	727 890 405	18.00	35	21
20	20	1	727 890 406	20.73	48	24
25	25	1 1/4	727 890 407	19.69	58	26
32	32	1 1/2	727 890 408	24.87	65	28
40	40	2	727 890 409	31.00	77	27
50	50	2 1/4	727 890 410	49.74	84	30
63	63	2 3/4	727 890 411	78.00	111	39
75	75 - 90	S107,5x3,6	* 727 890 422	92.95	135	40
90	110	S127,5x3,6	* 727 890 423	112.95	158	43
110	-	S152,5x3,6	* 727 890 424	146.11	188	48

B



Instrument Installation Fitting, PN 10, Natural PP

Add "T" to end of part number and fee to list price for each factory milled thread (max. diameter is 3/4"). See published price list for fee.

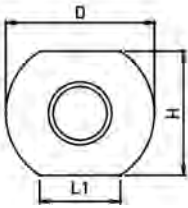
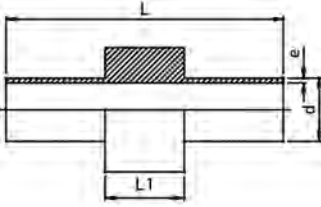
d (mm)	FM	Part No.	USD	e (mm)	L (mm)	D (mm)	H (mm)	L1 (mm)
20	BCF, IR	* 728 918 606	395.85	1.9	140	71	58	40
25	BCF, IR	* 728 918 607	406.22	2.3	140	75	63	40
32	BCF, IR	* 728 918 608	425.91	2.9	140	81	70	40
40	BCF, IR	* 728 918 609	433.16	3.7	140	88	78	40
50	BCF, IR	* 728 918 610	456.99	4.6	140	97	88	40
63	BCF, IR	* 728 918 611	631.09	5.8	140	109	101	40

B

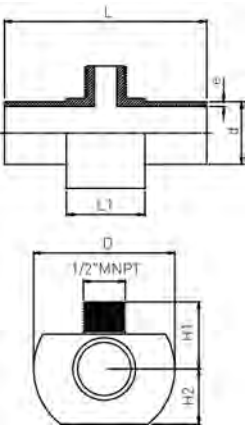


Instrument Installation Fitting, PN 6, Natural PP

d (mm)	FM	Part No.	USD	e (mm)	L (mm)	D (mm)	H (mm)	L1 (mm)
90	BCF, IR	* 728 918 613	811.40	5.1	140	134	128	40



B



1/2" MNPT Low Profile Adapter, PN 10, Natural PP

d (mm)	FM	Part No.	USD	e (mm)	L (mm)	D (mm)	H1 (mm)	H2 (mm)	L1 (mm)
20	BCF, IR	* 728 918 626	475.65	1.9	140	71	28	29	40
25	BCF, IR	* 728 918 627	488.08	2.3	140	75	31	32	40
32	BCF, IR	* 728 918 628	509.84	2.9	140	81	34	35	40
40	BCF, IR	* 728 918 629	522.28	3.7	140	88	38	39	40
50	BCF, IR	* 728 918 630	538.86	4.6	140	97	43	44	40
63	BCF, IR	* 728 918 631	559.59	5.8	140	109	50	51	40

B

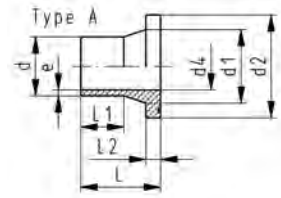


3/4" (3A) Sanitary Adapter, PN 10 Natural PP

3/4" size sanitary adapter port, i.e. 0.985" flange OD

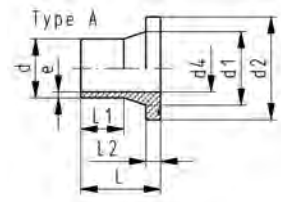
d (mm)	FM	Part No.	USD	e (mm)	L (mm)	D (mm)	H1 (mm)	H2 (mm)	L1 (mm)
20	BCF, IR	* 728 918 646	488.08	1.9	140	71	28	29	40
25	BCF, IR	* 728 918 647	500.52	2.3	140	75	31	32	40
32	BCF, IR	* 728 918 648	522.28	2.9	140	81	34	35	40
40	BCF, IR	* 728 918 649	537.82	3.7	140	88	38	39	40
50	BCF, IR	* 728 918 650	552.33	4.6	140	97	43	44	40
63	BCF, IR	* 728 918 651	574.09	5.8	140	109	50	51	40

A



Flange Adapter - ANSI Serrated, PN 10, Natural PP

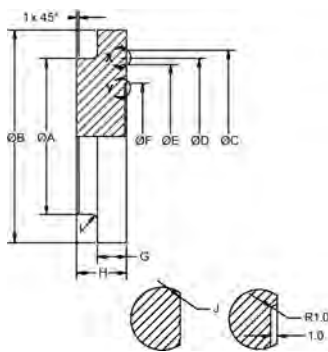
d (mm)	FM	Part No.	USD	weight (lb)	e (mm)	d1 (mm)	d2 (mm)	d4 (mm)	L (mm)	L1 (mm)	L2 (mm)
20	BCF, IR	728 798 706	15.96	0.033	1.9	27	45	16	50	29	7
25	BCF, IR	728 798 657	28.50	0.053	2.3	33	54	20	52	27	9
32	BCF, IR	728 798 658	28.91	0.079	3.0	40	63	26	54	28	10
40	BCF, IR	^ 728 798 659	32.64	0.132	3.7	50	73	32	56	25	11
50	BCF, IR	728 798 660	37.51	0.176	4.6	61	82	40	62	32	12
63	BCF, IR	728 798 711	39.48	0.306	5.8	75	102	51	68	38	14



Flange Adapter - ANSI Serrated, PN 6, Natural PP

d (mm)	FM	Part No.	USD	weight (kg)	L (mm)	L1 (mm)	L2 (mm)	e (mm)	d1 (mm)	d2 (mm)	d4 (mm)
90	BCF, IR	728 798 788	Call	0.271	80	41	17	5.7	105	138	78

A



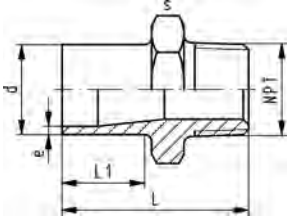
Blind Flange, PN 10, Standard PP

d (mm)	ANSI (inch)	Part No.	USD	weight (lb)
20	½	727 991 362	158.55	0.040
25	¾	727 991 363	183.42	0.062
32	1	727 991 364	193.78	0.093
40	1 ¼	^ 727 991 365	203.11	0.132
50	1 ½	727 991 366	216.58	0.172
63	2	727 991 367	224.87	0.309
90	3	727 991 369	281.87	0.672

d (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Rad I (mm)	Rad J (mm)
20	26	44	28	22		16	7	14	1.0	0.4
25	32	54	36	29		20	9	16	1.5	0.4
32	40	63	43	36		26	10	17	1.5	0.4
40	49	73	54	47		33	11	19	2.0	0.4
50	60	79	64	56		41	12	20	2.0	0.4
63	75	99	83	75	69	51	14	24	2.5	0.4
90	105	133	115	106	97	74	17	27	3.0	0.4

A

Male Adapter, PN 10, Natural PP



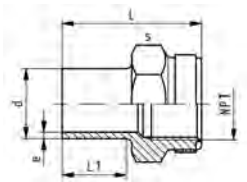
Model:

- With butt fusion spigot SDR11 and NPT tapered male thread
- Connection to plastic thread only
- Do not use thread sealing pastes that are harmful to PP
- Install with low mechanical stress and avoid large cyclic temperature changes

d	NPT	FM	Part No.	USD	weight	L	L1	s	e
(mm)	(inch)				(kg)	(mm)	(mm)	(mm)	(mm)
20	½	BCF, IR	728 914 106	70.57	0.013	51	28	32	1.9
25	¾	BCF, IR	728 914 107	70.57	0.017	52	28	36	2.3
32	1	BCF, IR	728 914 108	97.62	0.027	55	28	46	2.9
40	1 ¼	BCF, IR	^ 728 914 109	97.62	0.039	58	28	55	3.7
50	1 ½	BCF, IR	728 914 110	102.28	0.054	60	28	65	4.6
63	2	BCF, IR	728 914 111	102.28	0.093	67	28	80	5.8

A

Female Adapter, PN 10, Natural PP



Model:

- Connection to plastic or metal threads
- Reinforcing ring stainless (A2)
- Install with low mechanical stress and avoid large cyclic temperature changes

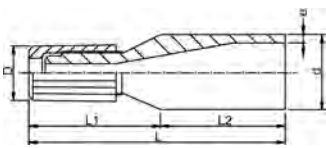
d	FM	NPT	Part No.	USD	weight	L	L1	s	e
(mm)		(inch)			(kg)	(mm)	(mm)	(mm)	(mm)
20	BCF, IR	½	728 914 056	62.38	0.016	49	28	32	1.9
25	BCF, IR	¾	728 914 057	62.38	0.019	51	28	36	2.3
32	BCF, IR	1	728 914 058	64.66	0.039	54	28	46	2.9
40	BCF, IR	1 ¼	^ 728 914 059	88.19	0.052	56	28	55	3.7
50	BCF, IR	1 ½	728 914 060	90.57	0.085	60	28	64	4.6
63	BCF, IR	2	728 914 061	101.14	0.140	62	28	80	5.8

A

Flare Tube Adapter, PN 10, Natural PP

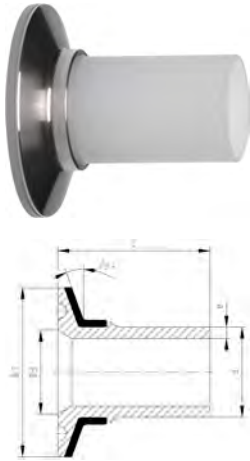


Nut is PVDF material



d	Tube Size	FM	Part No.	USD	e	D	L	L1	L2
(mm)	(inch)				(mm)	(mm)	(mm)	(mm)	(mm)
20	¼	BCF, IR	* 728 991 430	134.72	1.9	19	74	43	31
20	⅜	BCF, IR	* 728 991 431	134.72	1.9	22	77	46	31
20	½	BCF, IR	* 728 991 432	134.72	1.9	25	79	48	31
20	¾	BCF, IR	* 728 991 433	134.72	1.9	34	83	52	31
25	¼	BCF, IR	* 728 991 435	136.79	2.3	19	74	43	31
25	⅜	BCF, IR	* 728 991 436	136.79	2.3	22	77	46	31
25	½	BCF, IR	* 728 991 437	136.79	2.3	25	79	48	31
25	¾	BCF, IR	* 728 991 438	136.79	2.3	34	83	52	31
25	1	BCF, IR	* 728 991 439	136.79	2.3	37	84	58	31
32	½	BCF, IR	* 728 991 442	159.59	3.0	25	79	48	31
32	¾	BCF, IR	* 728 991 443	159.59	3.0	34	83	52	31
32	1	BCF, IR	* 728 991 444	159.59	3.0	37	89	58	31

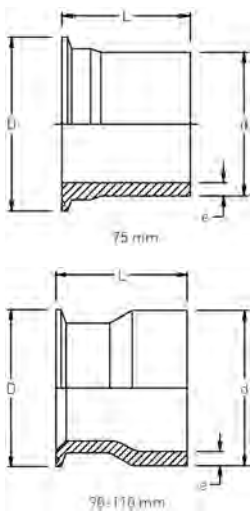
A



Sanitary Adapter, PN 10, Natural PP Connection to ASME BPE

	d (mm)	Size (inch)	FM	Part No.	USD	weight (lb)	L (mm)	e (mm)	D3 (mm)	D1 (mm)
*	20	¾	BCF, IR	728 598 357	97.62	0.011	49	1.9	16	25
	25	1	BCF, IR	728 598 359	136.79	0.064	50	2.3	22	51
	32	1 ½	BCF, IR	728 598 362	139.90	0.066	53	2.9	35	51
	40	1 ½	BCF, IR	^ 728 598 365	145.08	0.082	54	3.7	35	51
	50	2	BCF, IR	728 598 367	156.48	0.139	61	4.6	48	64
	63	2 ½	BCF, IR	728 598 369	173.06	0.212	67	5.8	60	78

B

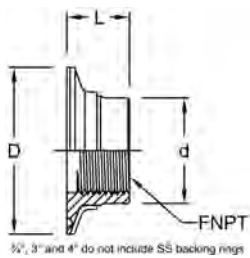


Large Sanitary Adapter

Does not use a Sanitary Backing Ring

	d Tube (3A) (mm)	Size (inch)	FM	Part No.	USD	e (mm)	D (mm)	L (mm)
**	90	3	BCF, IR	* 728 598 371	299.48	5.1	91	76

B



Sanitary Instrument Adapter, PN 10/PN 6, Natural PP

For use when a threaded connection is required in a sanitary system
Does not use a Sanitary Backing Ring

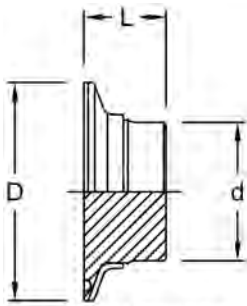
	Tube (3A) (inch)	FNPT (inch)	Part No.	USD	D (mm)	d (mm)	L (mm)
**	¾	¼	* 728 992 400	Call	25	20	13
	1	¼	* 728 992 401	Call	51	40	19
	1	¾	* 728 992 402	Call	51	40	19
	1 ½	¼	* 728 992 403	Call	51	40	19
	1 ½	½	* 728 992 404	Call	51	40	19
	1 ½	¾	* 728 992 405	Call	51	40	19

3/2", 3" and 4" do not include SS backing rings

B

Sanitary Blank, PN 10/PN 6, Natural PP

Does not use a Sanitary Backing Ring



3/4", 3" and 4" do not include SS backing rings

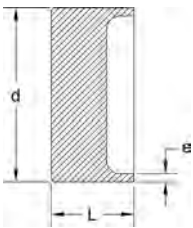
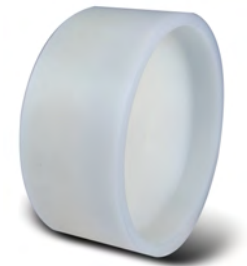
	Tube (3A) (inch)	Part No.	USD	D (mm)	d (mm)	L (mm)
**	3/4	* 728 992 390	110.88	25	20	13
	1 & 1 1/2	* 728 992 391	145.08	51	32	19
	2	* 728 992 392	150.26	64	50	19
**	3	* 728 992 394	347.15	91	75	19

B

End cap, PN 10/PN 6, Natural PP

Sizes 63mm and smaller are PN 10. Size 90mm is PN 6.

Add "T" to end of part number and fee to list price for each factory milled thread (max. diameter is 3/4"). See published price list for fee.



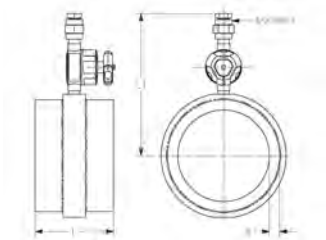
d (mm)	FM	Part No.	USD	e (mm)	L (mm)
20	IR	* 728 992 680	82.38	1.9	30
25	IR	* 728 992 681	97.62	2.3	30
32	IR	* 728 992 682	104.66	3.0	30
40	IR	* 728 992 683	108.81	3.7	30
50	IR	* 728 992 684	117.10	4.6	36
63	IR	* 728 992 685	133.68	5.8	37
90	IR	* 728 992 687	224.87	5.1	40

B

Vent Port Assembly, PN 10/PN 6, Natural PP

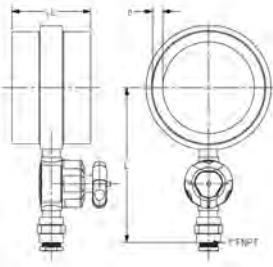
Sizes 63mm and smaller are PN 10. Size 90mm is PN 6.

Vent is 1/2" PP-N Type 515 Diaphragm Valve with MPT plug



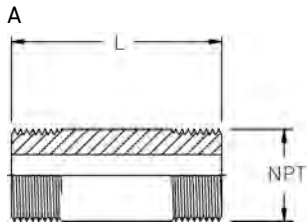
d (mm)	FM	Part No.	USD	e (mm)	L (mm)	L1 (mm)
50	BCF, IR	* 728 992 600	523.32	4.6	140	183
63	BCF, IR	* 728 992 601	538.86	5.8	140	189
90	BCF, IR	* 728 992 603	587.56	5.1	140	201

Drain Port Assembly, PN 10/PN 6, Natural PP



Sizes 63mm and smaller are PN 10. Size 90mm is PN 6.
 Drain is 1" PP-N Type 515 Diaphragm Valve with MPT plug

d (mm)	FM	Part No.	USD	e (mm)	L (mm)	L1 (mm)
50	BCF, IR	728 992 610	Call	4.6	140	215
63	BCF, IR	728 992 611	Call	5.8	140	221
90	BCF, IR	728 992 613	Call	8.2	140	233

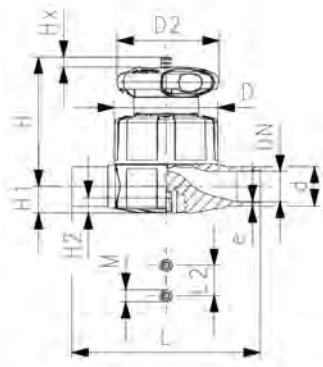


Nipples, PN 10, Natural PP

Male NPT (inch)	L (inch)	Part No.	USD
½	2	* 728 992 350	148.19
½	3	* 728 992 351	148.19
½	4	* 728 992 352	148.19
¾	2	* 728 992 353	148.19
¾	3	* 728 992 354	148.19
¾	4	* 728 992 355	151.30
1	2	* 728 992 356	151.30
1	3	* 728 992 357	152.33
1	4	* 728 992 358	154.40
1 ¼	3	* 728 992 359	156.48
1 ¼	4	* 728 992 360	158.55
1 ½	3	* 728 992 361	156.48
1 ½	4	* 728 992 362	158.55
2	3	* 728 992 363	162.69
2	4	* 728 992 364	163.73

Manual Valves

A



Type 515 Diaphragm Valve PROGEF Natural PP Butt fusion spigots SDR11 metric

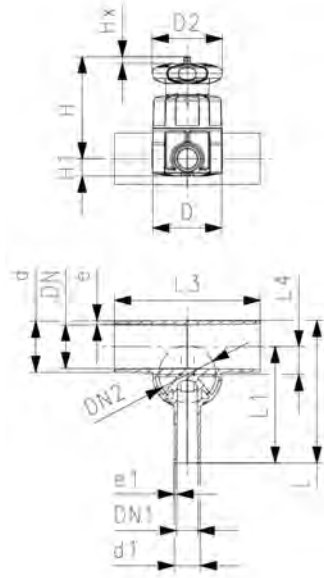
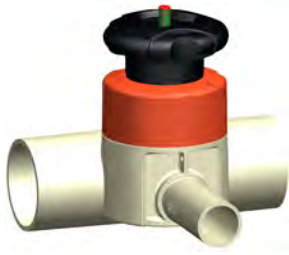
Model:

- EPDM version is PN 10 pressure rated. PTFE/EPDM version is PN 6 pressure rated.

d (mm)	DN	PN (bar)	EPDM Part No.	USD	PTFE/EPDM Part No.	USD	weight (lb)
20	DN15	10/6*	168 515 112	175.00	168 515 132	309.00	0.679
25	DN20	10/6*	168 515 113	191.00	168 515 133	332.00	0.866
32	DN25	10/6*	168 515 114	235.00	168 515 134	397.00	2.136
40	DN32	10/6*	168 515 115	296.00	168 515 135	513.00	2.480
50	DN40	10/6*	168 515 116	366.00	168 515 136	662.00	4.592
63	DN50	10/6*	168 515 117	456.00	168 515 137	788.00	5.798

d (mm)	D (mm)	D2 (mm)	L (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Lift = Hx (mm)	closest inch (inch)
20	65	65	124	25	73	14	12	M6	7	1/2
25	80	65	144	25	81	18	12	M6	10	3/4
32	88	87	155	25	107	22	12	M6	13	1
40	101	87	176	45	115	26	15	M8	15	1 1/4
50	117	135	193	45	148	32	15	M8	19	1 1/2
63	144	135	223	45	166	39	15	M8	25	2

A



Type 519 Diaphragm Valve Zero Static
PROGEF Natural PP
Butt fusion spigots SDR11 metric

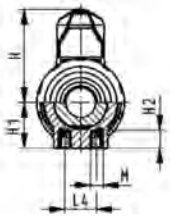
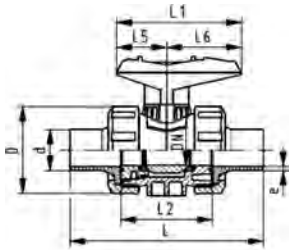
d (mm)	d1 (mm)	Valve Size d (mm)	DN2 (mm)	EPDM Part No.	USD	PTFE/EPDM Part No.	USD	weight (lb)
20	20	20	15	^ 168 519 101	576.00	^ 168 519 301	823.00	0.710
25	20	25	20	^ 168 519 103	589.00	^ 168 519 303	842.00	0.877
25	25	25	20	^ 168 519 104	599.00	^ 168 519 304	849.00	0.880
32	20	25	20	^ 168 519 107	599.00	^ 168 519 307	857.00	0.937
32	25	25	20	^ 168 519 108	605.00	^ 168 519 308	863.00	0.941
32	32	32	25	^ 168 519 109	613.00	^ 168 519 309	875.00	2.163
40	20	32	25	^ 168 519 112	627.00	^ 168 519 312	894.00	2.222
40	40	40	25	168 519 115	694.30	168 519 315	985.49	2.280
50	20	25	20	^ 168 519 118	731.00	^ 168 519 318	1,049.00	1.069
50	25	32	25	^ 168 519 119	793.00	^ 168 519 319	1,141.00	2.324
50	32	32	25	^ 168 519 120	823.00	^ 168 519 320	1,172.00	2.328
63	20	25	20	^ 168 519 125	857.00	^ 168 519 325	1,214.00	1.155
63	25	32	25	^ 168 519 126	857.00	^ 168 519 326	1,237.00	2.418
63	32	32	25	^ 168 519 127	875.00	^ 168 519 327	1,252.00	2.425

d (mm)	D (mm)	D2 (mm)	L (mm)	L1 (mm)	L3 (mm)	L4 (mm)	H (mm)	Lift = Hx (mm)	e (mm)	e1 (mm)	closest inch (inch)
20	65	65	117	96	162	12	75	7	1.9	1.9	½
25	80	65	133	108	162	16	80	10	2.3	1.9	¾
25	80	65	133	108	162	16	80	10	2.3	2.3	¾
32	80	65	142	120	162	19	84	10	2.9	1.9	1
32	80	65	142	120	162	19	84	10	2.9	2.3	1
32	88	87	145	120	160	19	107	13	2.9	2.9	1
40	88	87	149	128	180	23	115	13	3.7	1.9	1 ¼
40	88	87	174	153	180	23	115	13	3.7	3.7	1 ¼
50	80	65	160	134	180	27	97	10	4.6	1.9	1 ½
50	88	87	160	134	180	28	120	13	4.6	2.3	1 ½
50	88	87	160	134	180	28	120	13	4.6	2.9	1 ½
63	80	65	177	144	180	33	104	10	5.8	1.9	2
63	88	87	177	144	180	35	127	13	5.8	2.3	2
63	88	87	177	144	180	35	127	13	5.8	2.9	2

A



DN10/15 - 50



**Type 546 Ball Valve PROGEF Standard
With PROGEF Natural Valve Ends
IR/BCF Fusion Spigots**

d (mm)	EPDM Part No.	USD	FKM Part No.	USD
20	^ 157 546 442	152.00	^ 157 546 452	164.00
25	^ 157 546 443	177.00	^ 157 546 453	181.00
32	^ 157 546 444	189.00	^ 157 546 454	209.00
40	^ 157 546 445	208.00	^ 157 546 455	250.00
50	^ 157 546 446	250.00	^ 157 546 456	314.00
63	^ 157 546 447	305.00	^ 157 546 457	375.00
90	^ 157 546 448	900.52	^ 157 546 458	1,072.54

d (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	M	e (mm)	closest inch (inch)
20	50	57	27	12	130	77	56	25	32	45	M6	1.9	1/2
25	58	67	30	12	143	97	65	25	39	58	M6	2.3	3/4
32	68	73	36	12	150	97	71	25	39	58	M6	3.0	1
40	84	90	44	15	171	128	85	45	54	74	M8	3.7	1 1/4
50	97	97	51	15	191	128	89	45	54	74	M8	4.6	1 1/2
63	124	116	64	15	220	152	101	45	66	87	M8	5.8	2
90	200	161	105	15	264	270	141	70	64	206	M8	9.9	3