CPV-Chemflo Catalogue

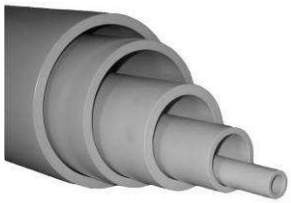
Engineering Pipework Solutions

CPV-CHEMFLO

Process Pressure Pipe Systems

For further information please visit www.cpv.co.uk

Contents



Polypropylene (Metric Range) Pipe 6m Lengths

PN Bar @ 20˚C	OD	Code	Min. Wall	Weight (Kg/m)	Pack Qty / L
2.5	50	PM.050.P02*	1.8	0.28	5
2.5	63	PM.063.P02*	1.8	0.35	3
2.5	75	PM.075.P02*	1.9	0.44	1
2.5	90	PM.090.P02*	2.2	0.62	1
2.5	110	PM.110.P02*	2.7	0.92	1
2.5	125	PM.125.P02*	3.1	1.20	1
2.5	140	PM.140.P02*	3.5	1.50	1
2.5	160	PM.160.P02	4.0	1.94	1
2.5	180	PM.180.P02	4.4	2.42	1
2.5	200	PM.200.P02	4.9	2.97	1
2.5	225	PM.225.P02	5.5	3.75	1
2.5	250	PM.250.P02	6.2	4.70	1
2.5	280	PM.280.P02	6.9	5.82	1
2.5	315	PM.315.P02	7.7	7.30	1
2.5	355	PM.355.P02*	8.7	9.29	1

PN Bar @ 20˚C	OD	Code	Min. Wall	Weight (Kg/m)	Pack Qty / L
6	50	PM.050.P06*	2.9	0.43	5
6	63	PM.063.P06	3.6	0.67	3
6	75	PM.075.P06*	4.3	0.95	1
6	90	PM.090.P06	5.1	1.35	1
6	110	PM.110.P06	6.3	2.02	1
6	125	PM.125.P06	7.1	2.59	1
6	140	PM.140.P06	8.0	3.25	1
6	160	PM.160.P06	9.1	4.23	1
6	180	PM.180.P06	10.2	5.33	1
6	200	PM.200.P06	11.4	6.60	1
6	225	PM.225.P06	12.8	8.32	1
6	250	PM.250.P06	14.2	10.27	1
6	280	PM.280.P06	15.9	12.84	1
6	315	PM.315.P06	17.9	16.25	1
6	355	PM.355.P06*	20.1	20.59	1

PN Bar @ 20˚C	OD	Code	Min. Wall	Weight (Kg/m)	Pack Qty / L
10	16	PM.016.P10*	1.8	0.08	10
10	20	PM.020.P10	2.3	0.13	10
10	25	PM.025.P10	2.3	0.16	10
10	32	PM.032.P10	2.9	0.26	10
10	40	PM.040.P10	3.7	0.42	5
10	50	PM.050.P10	4.6	0.65	5
10	63	PM.063.P10	5.8	1.02	3
10	75	PM.075.P10	6.8	1.42	1
10	90	PM.090.P10	8.2	2.06	1
10	110	PM.110.P10	10.0	3.05	1
10	125	PM.125.P10*	11.4	3.97	1
10	140	PM.140.P10*	12.7	4.94	1
10	160	PM.160.P10	14.6	6.49	1
10	180	PM.180.P10	16.4	8.20	1
10	200	PM.200.P10	18.2	10.11	1
10	225	PM.225.P10	20.5	12.79	1
10	250	PM.250.P10	22.7	15.73	1
10	280	PM.280.P10	25.4	19.71	1
10	315	PM.315.P10	28.6	24.95	1
10	355	PM.355.P10*	32.3	31.74	1

All dimensions in mm

OD and Wall Tolerances:

Chemflo-PP metric pipes are manufactured to dimensional standards and tolerances detailed in DIN 8077

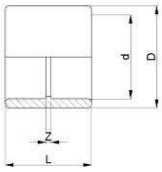
e.g: 63mm 10 bar:
Mean OD 63.0 → 63.4mm,
wall 5.8 → 6.6mm

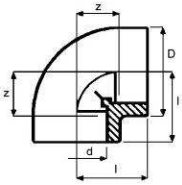
If Chemflo-PP pipes are required for purposes requiring more precise dimensions please contact our Sales Office

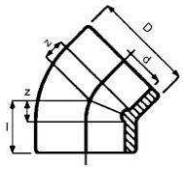
Notes:

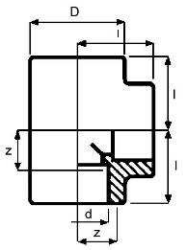
- Sizes shown with * are made to order only
- Non standard sizes and lengths are available to customer specification
- Polythene wrapped 16mm → 225mm
- Orders of less than standard packs may be delivered unwrapped
- PP-H pipes available on request – please consult our Sales Office
- 2.5 Bar pipes are not suitable for Socket or Electro-Fusion jointing

Polypropylene (Metric Range) — Socket Welded Fittings

COUPLER	d	PN bar	CODE	D	l	Z	Weight (g)	Pack Qty
 	20	10	PM.020.C--	27	36	7	10	5
	25	10	PM.025.C--	34	41	9	18	5
	32	10	PM.032.C--	41	45	9	24	5
	40	10	PM.040.C--	52	49	8	40	5
	50	10	PM.050.C--	61	53	6	50	5
	63	10	PM.063.C--	77	61	6	88	5
	75	10	PM.075.C--	92	69	7	170	2
	90	10	PM.090.C--	110	81	10	235	1
	110	10	PM.110.C--	134	96	13	400	1
	160	10	PM.160.C--	188	108	15	810	1

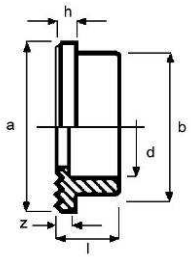
90° ELBOW	d	PN bar	CODE	D	l	Z	Weight (g)	Pack Qty
 	20	10	PM.020.E--	27	29	15	16	5
	25	10	PM.025.E--	34	34	18	28	5
	32	10	PM.032.E--	41	41	23	44	5
	40	10	PM.040.E--	52	45	24	73	5
	50	10	PM.050.E--	61	52	29	92	5
	63	10	PM.063.E--	77	63	36	170	5
	75	10	PM.075.E--	92	73	42	320	2
	90	10	PM.090.E--	110	86	51	465	1
	110	10	PM.110.E--	134	105	64	840	1
	160	10	PM.160.E--	193	193	147	3500	1

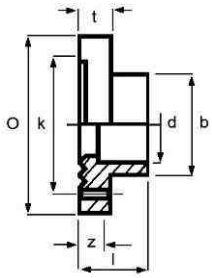
45° ELBOW	d	PN bar	CODE	D	l	Z	Weight (g)	Pack Qty
 	20	10	PM.020.A--	27	22	8	12	5
	25	10	PM.025.A--	34	26	10	20	5
	32	10	PM.032.A--	41	30	12	28	5
	40	10	PM.040.A--	52	33	12	50	5
	50	10	PM.050.A--	61	38	15	63	5
	63	10	PM.063.A--	77	44	17	130	5
	75	10	PM.075.A--	91	50	20	230	2
	90	10	PM.090.A--	110	61	26	350	1
	110	10	PM.110.A--	134	71	30	615	1
	160	10	PM.160.A--	192	110	64	2000	1

TEE	d	PN bar	CODE	D	l	l_1	Weight (g)	Pack Qty
 	20	10	PM.020.T--	27	29	15	22	5
	25	10	PM.025.T--	34	34	18	34	5
	32	10	PM.032.T--	41	41	23	55	5
	40	10	PM.040.T--	52	45	24	90	5
	50	10	PM.050.T--	61	52	29	118	5
	63	10	PM.063.T--	77	63	36	220	5
	75	10	PM.075.T--	92	73	42	410	2
	90	10	PM.090.T--	110	86	51	590	1
	110	10	PM.110.T--	134	105	64	1050	1
	160	10	PM.160.T--	196	137	91	3000	1

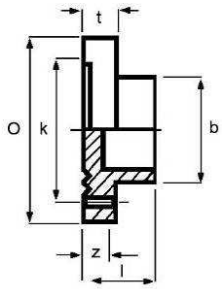
All dimensions in mm

Polypropylene (Metric Range) — Socket Welded Fittings

STUB FLANGE	d	PN bar	CODE	a	b	h	l	z	Weight (g)	Pack Qty
 	20	10	PM.020.S--	34	27	6	19	5	6	5
	25	10	PM.025.S--	41	33	7	22	6	10	5
	32	10	PM.032.S--	50	41	7	24	6	16	5
	40	10	PM.040.S--	61	50	8	26	6	24	5
	50	10	PM.050.S--	73	61	8	28	5	34	5
	63	10	PM.063.S--	90	76	9	32	5	56	5
	75	10	PM.075.S--	106	90	10	36	5	100	2
	90	10	PM.090.S--	125	108	11	43	8	135	2
	110	10	PM.110.S--	150	131	12	50	9	230	1
	160	10	PM.160.S--	213	192	22	58	9	717	1

FULL FACE FLANGE	d	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	20	10	PM.020.F--	27	19	12	95	5	64	5
	25	10	PM.025.F--	33	22	12	105	6	80	5
	32	10	PM.032.F--	41	24	12	115	6	100	5
	40	10	PM.040.F--	50	26	12	136	6	135	5
	50	10	PM.050.F--	61	28	14	149	5	155	5
	63	10	PM.063.F--	76	32	18	160	5	250	5
	90	10	PM.090.F--	108	43	18	200	8	440	2
	110	10	PM.110.F--	131	50	22	228	9	640	1
	160	10	PM.160.F--	192	58	22	285	9	950	1

Suitable backing rings should be used to obtain maximum working pressure.
Undrilled flanges available to order.

BLANK FLANGE	d	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	20	10	PM.020.P--	27	19	12	95	5	10	5
	25	10	PM.025.P--	33	22	12	105	6	18	5
	32	10	PM.032.P--	41	24	12	115	6	24	5
	40	10	PM.040.P--	50	26	12	136	6	40	5
	50	10	PM.050.P--	61	28	14	149	5	50	5
	63	10	PM.063.P--	76	32	18	160	5	88	5
	90	10	PM.090.P--	108	43	18	200	8	235	2
	110	10	PM.110.P--	131	50	22	228	9	400	1
	160	10	PM.160.P--	192	58	22	285	9	810	1

Suitable backing rings should be used to obtain maximum working pressure.

DRILLINGS

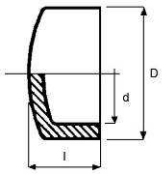
Common to Full Face Flanges and Blank Flanges:

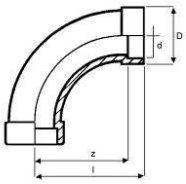
1 = BS 1560 / asa150
2 = BS 10 Table D
3 = BS 10 Table E
4 = BS 4504 Table 6
5 = BS 4504 Table 10
6 = BS 4504 Table 16

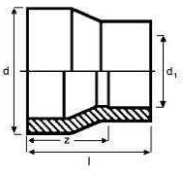
d	k PCD	Holes	1	2	3	4	5	6
20	60 – 67	4 x 14	✓	✓	✓		✓	✓
25	69 – 75	4 x 14	✓	✓	✓	✓	✓	✓
32	79 – 85	4 x 14	✓	✓	✓		✓	✓
40	87 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
50	98 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
63	110 – 125	4 x 18	✓	✓	✓	✓	✓	✓
90	145 – 160 / 160	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
110	170 – 191 / 177 –	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
160	242 – 255	8 x 22	✓	✓	✓		✓	✓

All dimensions in mm

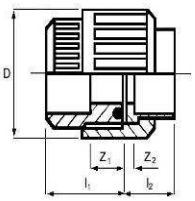
Polypropylene (Metric Range) — Socket Welded Fittings

END CAP	d	PN bar	CODE	D	l	Weight (g)	Pack Qty
 	20	10	PM.020.EC-	27	26	8	5
	25	10	PM.025.EC-	34	30	16	5
	32	10	PM.032.EC-	41	33	20	5
	40	10	PM.040.EC-	51	37	35	5
	50	10	PM.050.EC-	61	40	44	5
	63	10	PM.063.EC-	77	47	80	5
	75	10	PM.075.EC-	92	55	160	2
	90	10	PM.090.EC-	110	65	220	1
	110	10	PM.110.EC-	134	75	385	1

90° BEND	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20	10	PM.020.B--	35	74	59	74	1
	25	10	PM.025.B--	38	60	44	54	1
	32	10	PM.032.B--	45	87	68	70	1
	40	10	PM.040.B--	51	101	81	93	1
	50	10	PM.050.B--	60	93	70	130	1
	63	10	PM.063.B--	74	106	79	225	1

REDUCING BUSH Spigot x Socket	d x d_1	PN bar	CODE	l	z	Weight (g)	Pack Qty
 	25 x 20	10	PM.025.R01	37	23	9	5
	32 x 20	10	PM.032.R02	42	28	12	5
	32 x 25	10	PM.032.R01	42	26	14	5
	40 x 25	10	PM.040.R02	48	32	20	5
	40 x 32	10	PM.040.R01	46	28	22	5
	50 x 32	10	PM.050.R02	56	32	32	5
	50 x 40	10	PM.050.R01	50	30	32	5
	63 x 32	10	PM.063.R03	63	45	54	5
	63 x 50	10	PM.063.R01	56	33	54	5
	75 x 63	10	PM.075.R01	61	33	85	2
	90 x 63	10	PM.090.R02	80	53	140	2
	90 x 75	10	PM.090.R01	70	36	140	2
	110x6	10	PM.110.R03	79	50	200	1
	110x9	10	PM.110.R01	83	48	230	1
	160x9	10	PM.160.R02	138	104	685	1
	160x11	10	PM.160.R01	125	84	630	1

d = Spigot d_1 = Socket

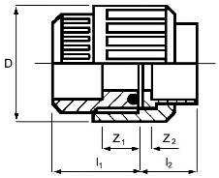
UNION Socket Fusion / EPDM Seal	d	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	20	10	PM.020.U--	46	36	19	22	5	51	1
	25	10	PM.025.U--	53	37	22	21	6	68	1
	32	10	PM.032.U--	62	38	24	20	6	92	1
	40	10	PM.040.U--	74	41	26	21	6	143	1
	50	10	PM.050.U--	107	46	28	23	5	207	1
	63	10	PM.063.U--	106	51	32	24	5	338	1

All dimensions in mm

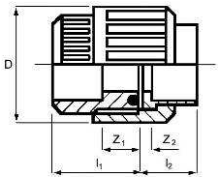
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations).
- EPDM O-ring standard. FPM O-ring available to order

Polypropylene (Metric Range)

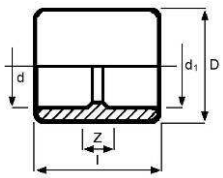
Adaptor Fittings – Metric to Inch

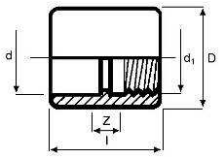
UNION Socket Fusion Metric x Inch / EPDM	d x d_1	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	20 x ½"	10	PM.020.UT-	46	36	19	22	5	51	1
	25 x ¾"	10	PM.025.UT-	53	37	22	21	6	68	1
	32 x 1"	10	PM.032.UT-	62	38	24	20	6	92	1
	40 x 1¼"	10	PM.040.UT-	74	41	26	21	6	143	1
	50 x 1½"	10	PM.050.UT-	107	46	28	23	5	207	1
	63 x 2"	10	PM.063.UT-	106	51	32	24	5	338	1

- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations).
- EPDM O-ring standard. FPM O-ring available to order

UNION Socket Fusion x FBSP Thread	d x d_1	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
(Threaded Stub End)	20 x ½"	6	PM.020.U07	46	36	19	22	5	51	1
 	25 x ¾"	6	PM.025.U07	53	37	22	21	6	68	1
	32 x 1"	6	PM.032.U07	62	38	24	20	6	92	1
	40 x 1¼"	6	PM.040.U07	74	41	26	21	6	143	1
	50 x 1½"	6	PM.050.U07	107	46	28	23	5	207	1
	63 x 2"	6	PM.063.U07	106	51	32	24	5	338	1

- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations).
- EPDM O-ring standard. FPM O-ring available to order

SOCKET ADAPTOR Socket Fusion	d x d_1	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20 x ½"	10	PM.020.M--	27	37	6	10	1
	25 x ¾"	10	PM.025.M--	34	42	7	16	1
	32 x 1"	10	PM.032.M--	41	49	8	24	1
	40 x 1¼"	10	PM.040.M--	52	49	5	25	1
	50 x 1½"	10	PM.050.M--	61	53	5	124	1
	63 x 2"	10	PM.063.M--	77	61	5	96	1
	90 x 3"	10	PM.090.M--	110	81	8	240	1
	110 x 4"	10	PM.110.M--	135	96	10	370	1
	160 x 6"	10	PM.160.M--	196	108	10	1050	1

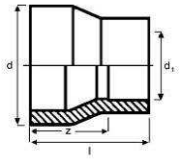
SOCKET ADAPTOR Socket Fusion x FBSP	d x d_1	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20 x ½"	6	PM.020.C07	32	36	7	10	1
	25 x ¾"	6	PM.025.C07	34	41	9	16	1
	32 x 1"	6	PM.032.C07	45	45	9	22	1
	40 x 1¼"	6	PM.040.C07	52	49	8	40	1
	50 x 1½"	6	PM.050.C07	61	53	6	54	1
	63 x 2"	6	PM.063.C07	77	61	6	96	1
	90 x 3"	6	PM.090.C07	110	80	10	250	1
	110 x 4"	6	PM.110.C07	134	95	13	400	1

All dimensions in mm

Polypropylene (Metric Range)

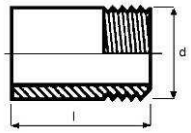
Adaptor Fittings – Metric to Inch

REDUCING BUSH Spigot x Socket	**d x d_1**	**PN bar**	**CODE**	**l**	**Z**	**Weight (g)**	**Pack Qty**
	90 x 2"	10	PM.090.RM-	81	54	145	1
	110 x 2"	10	PM.110.RM-	85	56	210	1



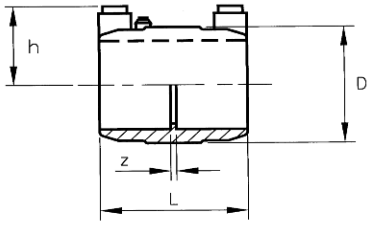
d = Spigot d_1 = Socket

NIPPLE Plain x MBSPTr Thread	**d**	**PN bar**	**CODE**	**l**	**Weight (g)**	**Pack Qty**
	20 x ½"	6	PM.020.NP-	55	8	5
	25 x ¾"	6	PM.025.NP-	58	10	5
	32 x 1"	6	PM.032.NP-	65	17	5
	40 x 1¼"	6	PM.040.NP-	68	29	5
	50 x 1½"	6	PM.050.NP-	68	44	5
	63 x 2"	6	PM.063.NP-	76	76	5

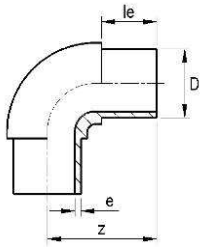


All dimensions in mm

Polypropylene (Metric Range) — Long Spigot Fittings for Electro-fusion & Butt Fusion

ELETROFUSION COUPLERS 39.5v	d	PN bar	CODE	D	L	h	z	Weight (Kg)	Pack Qty
	20	10	EP.020.EFC	30	69	35	2	0.035	1
	25	10	EP.025.EFC	35	77	39	2	0.055	1
	32	10	EP.032.EFC	44	79	42	2	0.062	1
	40	10	EP.040.EFC	53	91	45	2	0.100	1
	50	10	EP.050.EFC	64	102	50	2	0.133	1
	63	6, 10	EP.063.EFC	80	117	60	2	0.225	1
	75	6, 10	EP.075.EFC	95	128	65	2	0.340	1
	90	6, 10	EP.090.EFC	112	144	70	2	0.480	1
	110	6, 10	EP.110.EFC	136	159	83	2	0.820	1
	125	6, 10	EP.125.EFC	153	170	90	2	1.100	1
	140	6, 10	EP.140.EFC	170	183	100	2	1.350	1
	160	6, 10	EP.160.EFC	194	185	110	2	1.790	1
	180	6, 10	EP.180.EFC	218	210	123	2	2.400	1
	200	6, 10	EP.200.EFC	243	210	135	3	3.050	1
	225	6, 10	EP.225.EFC	273	212	150	3	3.800	1
	250	6, 10	EP.250.EFC	325	250				1
	280	6, 10	EP.280.EFC	360	290				1
	315	6, 10	EP.315.EFC	380	290				1

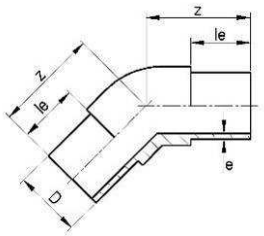
Note: If used for Electro-Fusion Jointing, the Pipe and/or Fittings must be peeled and clamped before Electro-Fusion commences

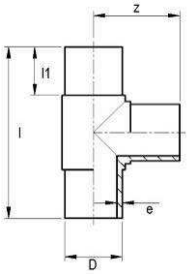
90° ELBOW Long Spigot	D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
	50	10	PB.050.E10/L	4.6	80	112	0.166	1
	63	10	PB.063.E10/L	5.8	80	120	0.267	1
	75	10	PB.075.E10/L	6.6	90	135	0.412	1
	90	10	PB.090.E10/L	8.2	90	145	0.625	1
	110	10	PB.110.E10/L	10.0	100	165	1.040	1
	125	10	PB.125.E10/L	11.4	100	173	1.140	1
	140	10	PB.140.E10/L	12.7	120	200	1.850	1
	160	10	PB.160.E10/L	14.6	138	235	3.240	1
	180	10	PB.180.E10/L	16.4	138	245	4.205	1
	200	10	PB.200.E10/L	18.2	150	265	5.645	1
	225	10	PB.225.E10/L	20.5	150	280	7.420	1
	* 250	10	PB.250.E10/L	22.7	130	295	8.860	1
	* 280	10	PB.280.E10/L	25.4	140	325	12.230	1
	* 315	10	PB.315.E10/L	28.6	150	380	17.570	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) — Long Spigot Fittings for Electro-fusion & Butt Fusion

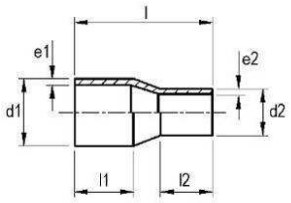
45° ELBOW Long Spigot	D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
	20	10	PB.020.A10/L	1.9	51	70	0.022	1
	25	10	PB.025.A10/L	2.3	55	75	0.035	1
	32	10	PB.032.A10/L	2.9	69	90	0.063	1
	40	10	PB.040.A10/L	3.7	70	100	0.100	1
	50	10	PB.050.A10/L	4.6	60	110	0.120	1
	63	10	PB.063.A10/L	5.8	65	115	0.217	1
	75	10	PB.075.A10/L	6.8	70	130	0.290	1
	90	10	PB.090.A10/L	8.2	80	140	0.450	1
	110	10	PB.110.A10/L	10.0	90	160	0.775	1
	125	10	PB.125.A10/L	11.4	95	170	1.120	1
	140	10	PB.140.A10/L	12.7	120	-	1.320	1
	160	10	PB.160.A10/L	14.6	140	230	2.465	1
	180	10	PB.180.A10/L	16.4	140	245	3.210	1
	200	10	PB.200.A10/L	18.2	150	265	4.625	1
	225	10	PB.225.A10/L	20.5	150	280	5.550	1
	* 250	10	PB.250.A10/L	22.7	130	220	7.890	1
	* 280	10	PB.280.A10/L	25.4	140	230	10.170	1
	* 315	10	PB.315.A10/L	28.5	150	250	11.690	1

TEE Long Spigot	D	PN bar	CODE	e	l	l_1	z	Weight (Kg)	Pack Qty
	20	10	PB.020.T10/L	1.9	106	15	52	0.020	1
	25	10	PB.025.T10/L	2.3	120	18	60	0.040	1
	32	10	PB.032.T10/L	2.9	136	23	68	0.070	1
	40	10	PB.040.T10/L	3.7	161	24	79	0.115	1
	50	10	PB.050.T10/L	4.6	188	29	92	0.200	1
	63	10	PB.063.T10/L	5.8	216	36	108	0.370	1
	75	10	PB.075.T10/L	6.8	250	42	122	0.630	1
	90	10	PB.090.T10/L	8.2	272	51	135	0.915	1
	110	10	PB.110.T10/L	10.0	318	64	159	1.645	1
	125	10	PB.125.T10/L	11.4	344	91	172	2.210	1
	140	10	PB.140.T10/L	12.7	400	100	196	2.580	1
	160	10	PB.160.T10/L	14.6	408	101	205	4.110	1
	180	10	PB.180.T10/L	16.4	525	140	262	6.790	1
	200	10	PB.200.T10/L	18.2	500	122	250	7.510	1
	225	10	PB.225.T10/L	20.5	555	127	276	10.420	1
	* 250	10	PB.250.T10/L	22.7	575	127	288		1
	* 280	10	PB.280.T10/L	25.4	615	132	308		1
	* 315	10	PB.315.T10/L	28.6	695	50	346		1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) — Long Spigot Fittings for Electro-fusion & Butt Fusion

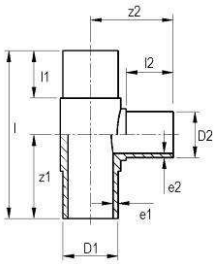


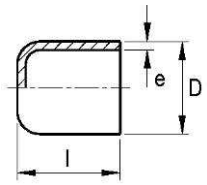
CONC. REDUCER Long Spigot	d_1	PN bar	CODE	d_2	e_1	e_2	l	l_1	l_2	Weight (Kg)	Pack Qty
	50	10	PB.050025.R10/L	25	4.6	2.3	126	55	39	0.058	1
	50	10	PB.050032.R10/L	32	4.6	2.9	128	55	43	0.065	1
	50	10	PB.050040.R10/L	40	4.6	3.7	132	55	49	0.074	1
	63	10	PB.063032.R10/L	32	5.8	2.9	142	63	43	0.100	1
	63	10	PB.063040.R10/L	40	5.8	3.7	146	63	49	0.119	1
	63	10	PB.063050.R10/L	50	5.8	4.6	150	53	55	0.140	1
*	75	10	PB.075050.R10/L	50	6.8	4.6	150	65	57	0.180	1
	75	10	PB.075063.R10/L	63	6.8	5.6	165	70	63	0.190	1
	90	10	PB.090063.R10/L	63	8.2	5.6	185	79	70	0.340	1
	90	10	PB.090075.R10/L	75	8.2	6.8	183	79	70	0.300	1
	110	10	PB.110063.R10/L	63	10.0	5.8	185	85	67	0.450	1
	110	10	PB.110090.R10/L	90	10.0	8.2	185	85	79	0.530	1
	125	10	PB.125063.R10/L	63	11.4	5.8	200	90	70	0.600	1
	125	10	PB.125090.R10/L	90	11.4	8.2	200	90	79	0.675	1
	125	10	PB.125110.R10/L	110	11.4	10.4	200	90	86	0.765	1
*	140	10	PB.140125.R10/L	125	12.7	11.4	230	110	90	0.970	1
	160	10	PB.160090.R10/L	90	14.6	8.2	250	120	80	1.230	1
	160	10	PB.160110.R10/L	110	14.6	10.0	250	120	90	1.330	1
	160	10	PB.160125.R10/L	125	14.6	11.4	250	120	90	1.370	1
	160	10	PB.160140.R10/L	140	14.6	12.7	260	120	110	1.560	1
*	180	10	PB.180125.R10/L	125	16.4	11.4	245	105	90	1.820	1
*	180	10	PB.180160.R10/L	160	16.4	14.6	270	120	120	2.120	1
*	200	10	PB.200160.R10/L	160	18.2	14.6	275	120	120	2.430	1
	225	10	PB.225160.R10/L	160	20.5	14.6	295	130	120	3.050	1
	225	10	PB.225180.R10/L	180	205	16.4	290	128	120	3.270	1
*	250	10	PB.250180.R10/L	180	22.7	16.4	295	130	105	4.050	1
*	250	10	PB.250200.R10/L	200	22.7	18.2	302	130	116	4.380	1
*	250	10	PB.250225.R10/L	225	22.7	20.5	310	130	120	4.850	1
*	250	10	PB.250160.R10/L	160	22.7	14.6	290	130	100	3.705	1
*	280	10	PB.280200.R10/L	200	25.4	18.2	333	140	112	5.850	1
*	280	10	PB.280225.R10/L	225	25.4	20.5	335	140	120	6.085	1
*	280	10	PB.280250.R10/L	250	25.4	22.7	340	140	130	6.540	1
*	315	10	PB.315225.R10/L	225	28.6	20.5	365	150	120	7.900	1
*	315	10	PB.315250.R10/L	250	28.6	22.7	365	150	130	8.100	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) — Long Spigot Fittings for Electro-fusion & Butt Fusion

REDUCING TEE Long Spigot	D_1	PN bar	CODE	D_2	e_1	e_2	l	l_1	1_2	z_l	z_2	Weight (Kg)	Pack Qty
	90	10	PB.090050.T10/L	50	8.2	4.6	272	79	58	135	117	0.680	1
	90	10	PB.090063.T10/L	63	8.2	5.8	272	79	65	135	123	0.780	1
	110	10	PB.110063.T10/L	63	10.0	5.8	320	87	65	159	147	1.250	1
	110	10	PB.110090.T10/L	90	10.0	8.2	318	86	80	159	158	1.440	1
	160	10	PB.160090.T10/L	90	14.6	8.2	408	101	79	205	188	2.680	1
	160	10	PB.160110.T10/L	110	14.6	10.0	408	101	85	205	195	3.300	1
	225	10	PB.225090.T10/L	90	20.5	8.2	555	127	80	276	226	9.380	1
	225	10	PB.225110.T10/L	110	20.5	10.0	555	127	85	276	235	6.600	1
	225	10	PB.225160.T10/L	160	20.5	14.6	555	127	105	276	255	7.840	1

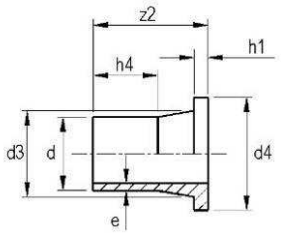
END CAP Long Spigot	D	PN bar	CODE	e	l	Weight (Kg)	Pack Qty
	32	10	PB.032.EC10/L	2.9	55	0.017	1
	40	10	PB.040.EC10/L	3.7	61	0.028	1
	50	10	PB.050.EC10/L	4.6	70	0.051	1
	63	10	PB.063.EC10/L	5.8	82	0.094	1
	75	10	PB.075.EC10/L	6.8	92	0.147	1
	90	10	PB.090.EC10/L	8.2	100	0.230	1
	110	10	PB.110.EC10/L	10.0	120	0.400	1
	125	10	PB.125.EC10/L	11.4	126	0.543	1
	140	10	PB.140.EC10/L	12.7	136	0.737	1
	160	10	PB.160.EC10/L	14.6	150	1.090	1
	180	10	PB.180.EC10/L	16.4	160	1,440	1
	200	10	PB.200.EC10/L	18.2	175	1.890	1
	225	10	PB.225.EC10/L	20.5	200	2.580	1
	* 250	10	PB.250.EC10/L	22.7	205	2.700	1
	* 280	10	PB.280.EC10/L	25.4	230	3.100	1
	* 315	10	PB.315.EC10/L	28.6	255	6.600	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) Long Spigot Fittings for Electro-fusion & Butt Fusion

STUB FLANGE Long Spigot



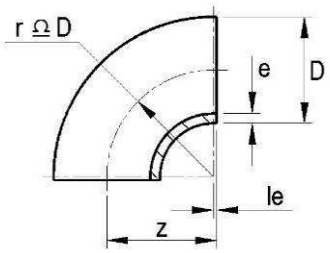
d	PN Bar	CODE	e	d_3	d_4	h_1	h_4	z_2	Weight Kg	Pack Qty
50	10	PB.050.S10/L	4.6	61	88	12	55	104	0.115	1
63	10	PB.063.S10/L	5.8	75	102	14	63	120	0.180	1
75	10	PB.075.S10/L	6.8	89	122	16	70	130	0.263	1
90	10	PB.090.S10/L	8.2	105	138	17	79	140	0.350	1
110	10	PB.110.S10/L	10.0	125	158	18	82	160	0.495	1
* 125	10	PB.125.S10/L	11.4	132	158	18	87	180	0.640	1
* 140	10	PB.140.S10/L	12.7	155	185	18	92	180	0.900	1
* 160	10	PB.160.S10/L	14.6	175	212	18	98	180	1.160	1
* 180	10	PB.180.S10/L	16.4	180	212	20	105	200	1.200	1
* 200	10	PB.200.S10/L	18.2	232	268	24	112	200	2.010	1
* 225	10	PB.225.S10/L	20.5	235	268	24	120	200	2.200	1
* 250	10	PB.250.S10/L	22.7	285	320	25	130	210	4.140	1
* 280	10	PB.280.S10/L	25.4	291	320	25	140	225	5.780	1
* 315	10	PB.315.S10/L	28.5	355	370	25	150	235	4.400	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range)

Short Spigot Fittings for Butt Fusion



90° BEND Short Spigot	D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
	90	10	PB.090.B10/S	8.2	6	93	0.330	1
	110	10	PB.110.B10/S	10.0	8	115	0.577	1
	125	10	PB.125.B10/S	11.4	8	130	0.835	1
	140	10	PB.140.B10/S	12.7	8	145	1.145	1
	160	10	PB.160.B10/S	14.6	8	165	1.740	1
	180	10	PB.180.B10/S	16.4	8	164	2.450	1
	200	10	PB.200.B10/S	18.2	8	204	3.485	1
	225	10	PB.225.B10/S	20.5	10	231	4.690	1
*	250	10	PB.250.B10/S	22.7	10	256	6.290	1
*	280	10	PB.280.B10/S	25.4	10	286	8.280	1
*	315	10	PB.315.B10/S	28.6	10	322	12.670	1
*	355	10	PB.355.B10/S	32.2	15	360	19.365	1
*	400	10	PB.400.B10/S	36.3	25	435	28.510	1

D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
90	6	PB.090.B06/S	5.1	6	93	0.207	1
110	6	PB.110.B06/S	6.3	8	115	0.384	1
125	6	PB.125.B06/S	7.1	8	130	0.555	1
140	6	PB.140.B06/S	8.0	8	145	0.750	1
160	6	PB.160.B06/S	9.1	8	165	1.170	1
180	6	PB.180.B06/S	10.2	6	184	1.600	1
200	6	PB.200.B06/S	11.4	8	204	2.320	1
225	6	PB.225.B06/S	12.8	10	231	3.200	1
* 250	6	PB.250.B06/S	14.2	10	256	4.260	1
* 280	6	PB.280.B06/S	15.9	10	286	5.860	1
* 315	6	PB.315.B06/S	17.9	10	322	8.440	1
* 355	6	PB.355.B06/S	20.1	15	380	13.300	1
* 400	6	PB.400.B06/S	22.7	25	435	18.645	1

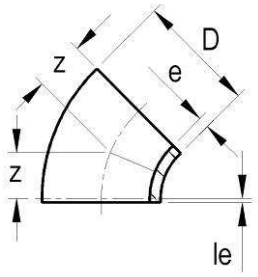
* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range)

Short Spigot Fittings for Butt Fusion

45° BEND Short Spigot



D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
90	10	PB.090.A10/S	8.2	6	93	0.165	1
110	10	PB.110.A10/S	10.0	8	115	0.288	1
125	10	PB.125.A10/S	11.4	8	130	0.417	1
140	10	PB.140.A10/S	12.7	8	145	0.572	1
160	10	PB.160.A10/S	14.6	8	165	0.870	1
180	10	PB.180.A10/S	16.4	8	184	1.245	1
200	10	PB.200.A10/S	18.2	8	204	1.742	1
225	10	PB.225.A10/S	20.5	10	231	2.345	1
* 250	10	PB.250.A10/S	22.7	10	256	3.145	1
* 280	10	PB.280.A10/S	25.4	10	266	4.410	1
* 315	10	PB.315.A10/S	28.6	10	322	6.335	1
* 355	10	PB.355.A10/S	32.2	15	380	9.682	1
* 400	10	PB.400.A10/S	36.3	25	435	14.255	1

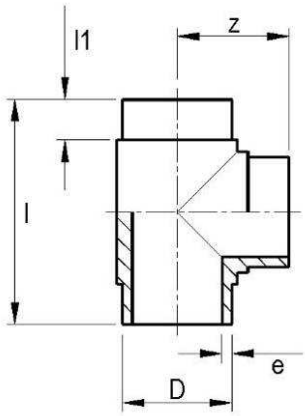
D	PN bar	CODE	e	le	z	Weight (Kg)	Pack Qty
90	6	PB.090.A06/S	5.1	6	93	0.103	1
110	6	PB.110.A06/S	6.3	8	115	0.192	1
125	6	PB.125.A06/S	7.1	8	130	0.277	1
140	6	PB.140.A06/S	8.0	8	145	0.375	1
160	6	PB.160.A06/S	9.1	8	165	0.585	1
180	6	PB.180.A06/S	10.2	8	184	0.800	1
200	6	PB.200.A06/S	11.4	8	204	1.160	1
225	6	PB.225.A06/S	12.8	10	231	1.600	1
* 250	6	PB.250.A06/S	14.2	10	256	2.130	1
* 280	6	PB.280.A06/S	15.9	10	266	2.930	1
* 315	6	PB.315.A06/S	17.9	10	322	4.220	1
* 355	6	PB.355.A06/S	20.1	15	380	6.650	1
* 400	6	PB.400.A06/S	22.7	25	435	9.322	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) — Short Spigot Fittings for Butt Fusion

EQUAL TEE Short Spigot Moulded



D	PN bar	CODE	e	l	l_1	z	Weight (Kg)	Pack Qty
90	10	PB.090.T10/S	8.2	183	39	92	0.595	1
110	10	PB.110.T10/S	10.0	255	55	128	1.305	1
125	10	PB.125.T10/S	11.4	250	50	128	1.630	1
140	10	PB.140.T10/S	12.7	314	60	153	2.445	1
160	10	PB.160.T10/S	14.6	316	55	158	3.295	1
180	10	PB.180.T10/S	16.4	430	92	212	5.560	1
200	10	PB.200.T10/S	18.2	433	88	215	6.780	1
225	10	PB.225.T10/S	20.5	448	72	224	9.200	1
* 250	10	PB.250.T10/S	22.7	446	64	222	10.500	1
* 280	10	PB.280.T10/S	25.4	525	82	258	15.300	1
* 315	10	PB.315.T10/S	28.6	566	82	278	20.600	1
* 355	10	PB.355.T10/S	32.2	690	100	345	31.100	1
* 400	10	PB.400.T10/S	36.3	722	102	350	38.000	1

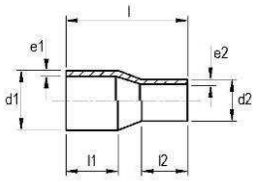
D	PN bar	CODE	e	l	l_1	z	Weight (Kg)	Pack Qty
90	6	PB.090.T06/S	5.1	183	39	92	0.440	1
110	6	PB.110.T06/S	6.3	225	55	128	0.980	1
125	6	PB.125.T06/S	7.1	250	50	128	1.165	1
140	6	PB.140.T06/S	8.0	314	60	153	1.840	1
160	6	PB.160.T06/S	9.1	316	55	158	2.390	1
180	6	PB.180.T06/S	10.2	430	92	212	4.110	1
200	6	PB.200.T06/S	11.4	433	88	215	5.080	1
225	6	PB.225.T06/S	12.8	446	72	223	6.820	1
* 250	6	PB.250.T06/S	14.2	446	64	222	7.500	1
* 280	6	PB.280.T06/S	15.9	525	82	258	11.000	1
* 315	6	PB.315.T06/S	17.9	586	82	277	14.000	1
* 355	6	PB.355.T06/S	20.1	690	100	345	21.000	1
* 400	6	PB.400.T06/S	22.7	700	95	350	26.000	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range)

Short Spigot Fittings for Butt Fusion

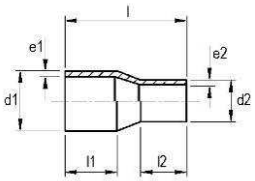


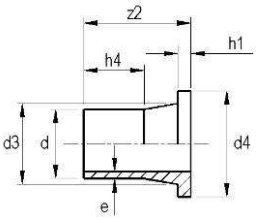
CONCENTRIC REDUCER Short Spigot	d_1	PN bar	CODE	d_2	e_1	e_2	l	l_1	l_2	Weight (Kg)	Pack Qty
	90	10	PB.090050.R10/S	50	8.2	4.6	74	21	12	0.119	1
	90	10	PB.090063.R10/S	63	8.2	5.8	74	21	16	0.126	1
	90	10	PB.090075.R10/S	75	8.2	6.6	74	21	19	0.142	1
	110	10	PB.110050.R10/S	50	10.0	4.6	90	28	14	0.197	1
	110	10	PB.110063.R10/S	63	10.0	5.8	105	40	35	0.266	1
	110	10	PB.110075.R10/S	75	10.0	6.8	90	27	20	0.216	1
	110	10	PB.110090.R10/S	90	10.0	8.2	100	40	40	0.294	1
	125	10	PB.125063.R10/S	63	11.4	5.8	120	40	35	0.360	1
	125	10	PB.125075.R10/S	75	11.4	6.8	100	30	20	0.300	1
	125	10	PB.125090.R10/S	90	11.4	8.2	110	40	40	0.380	1
	125	10	PB.125110.R10/S	110	11.4	10.0	102	40	40	0.379	1
	160	10	PB.160090.R10/S	90	14.6	8.2	140	50	40	0.710	1
	160	10	PB.160110.R10/S	110	14.6	10.0	128	50	40	0.720	1
	160	10	PB.160125.R10/S	125	14.6	11.4	122	50	40	0.715	1
	180	10	PB.180090.R10/S	90	16.4	8.2	140	50	40	0.540	1
	180	10	PB.180110.R10/S	110	16.4	10.0	130	55	40	0.530	1
	180	10	PB.180125.R10/S	125	16.4	11.4	140	50	40	0.490	1
	180	10	PB.180160.R10/S	160	16.4	14.6	130	55	50	0.460	1
	200	10	PB.200160.R10/S	160	18.2	14.6	145	60	50	1.280	1
	200	10	PB.200180.R10/S	180	18.2	16.4	135	60	55	0.540	1
	225	10	PB.225200.R10/S	200	20.5	18.2	160	60	60	0.700	1
*	250	10	PB.250160.R10/S	160	22.7	14.6	170	60	50	2.150	1
*	250	10	PB.250180.R10/S	180	22.7	16.4	175	60	55	2.285	1
*	250	10	PB.250200.R10/S	200	22.7	18.2	180	60	60	2.500	1
*	250	10	PB.250225.R10/S	225	22.7	20.5	180	60	60	2.750	1
*	280	10	PB.280250.R10/S	250	25.4	22.7	200	70	60	3.680	1
*	315	10	PB.315200.R10/S	200	28.6	18.2	247	80	50	4.520	1
*	315	10	PB.315225.R10/S	225	28.6	20.5	225	80	55	4.760	1
*	315	10	PB.315250.R10/S	250	28.6	22.7	225	80	60	5.000	1
*	355	10	PB.355225.R10/S	225	32.2	20.5	245	90	60	4.260	1
*	355	10	PB.355250.R10/S	250	32.2	22.7	245	90	60	3.940	1
*	355	10	PB.355315.R10/S	315	32.2	28.6	245	90	80	3.540	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

Polypropylene (Metric Range) — Short Spigot Fittings for Butt Fusion

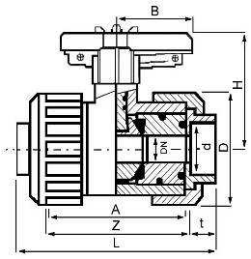
CONCENTRIC REDUCER Short Spigot	d_1	PN bar	CODE	d_2	e_1	e_2	l	l_1	l_2	Weight (Kg)	Pack Qty
	200	6	PB.200160.R06/S	160	11.4	9.1	145	60	50	0.890	1
	200	6	PB.200140.R06/S	140	11.4	8.0	135	60	45	0.470	1
	200	6	PB.200180.R06/S	180	11.4	10.2	135	60	55	0.430	1
	225	6	PB.225140.R06/S	140	12.8	8.0	150	60	45	1.085	1
	225	6	PB.225200.R06/S	160	12.8	9.1	160	60	50	1.145	1
	225	6	PB.250160.R06/S	180	12.8	10.2	160	60	55	1.190	1
	225	6	PB.250180.R06/S	200	12.8	11.4	160	60	60	0.550	1
	* 250	6	PB.250200.R06/S	200	14.2	11.4	180	60	60	1.800	1
	* 250	6	PB.250225.R06/S	225	14.2	12.8	180	60	60	1.890	1
	* 280	6	PB.280200.R06/S	200	15.9	11.4	200	70	50	2.360	1
	* 280	6	PB.280225.R06/S	225	15.9	12.8	200	70	55	2.420	1
	* 280	6	PB.280250.R06/S	250	15.9	14.2	200	70	60	2.540	1
	* 315	6	PB.315200.R06/S	200	17.9	11.4	247	80	50	3.220	1
	* 315	6	PB.315225.R06/S	225	17.9	12.8	225	80	55	3.260	1
	* 315	6	PB.315250.R06/S	250	17.9	14.2	225	80	60	3.280	1
	* 315	6	PB.315280.R06/S	280	17.9	15.9	225	80	70	3.540	1

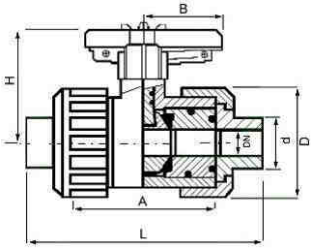
STUB FLANGE Short Spigot	d	PN bar	CODE	e	d_3	d_4	h_1	h_4 min	z_1	Weight (Kg)	Pack Qty
	* 90	10	PB.090.S10/S	8.2	105	138	17	43	80	0.318	1
	* 110	10	PB.110.S10/S	10.0	125	158	18	37	80	0.460	1
	* 125	10	PB.125.S10/S	11.4	132	158	25	35	80	0.503	1
	* 140	10	PB.140.S10/S	12.7	155	188	25	27	80	0.725	1
	* 160	10	PB.160.S10/S	14.6	175	212	25	27	80	0.920	1
	* 180	10	PB.180.S10/S	16.4	180	211	30	20	80	0.935	1
	* 200	10	PB.200.S10/S	18.2	232	267	32	28	120	2.125	1
	* 225	10	PB.225.S10/S	20.5	235	267	32	38	120	2.115	1
	* 250	10	PB.250.S10/S	22.7	285	319	35	25	120	3.050	1
	* 280	10	PB.280.S10/S	25.4	291	319	35	35	120	2.970	1
	* 315	10	PB.315.S10/S	28.6	335	368	35	25	120	4.270	1
	* 355	10	PB.355.S10/S	32.2	373	429	40	40	120	5.640	1
	* 400	10	PB.400.S10/S	36.3	427	481	46	29	140	8.300	1
	d	PN bar	CODE	e	d_3	d_4	h_1	h_4 min	z_1	Weight (Kg)	Pack Qty
	* 90	6	PB.090.S06/S	5.1	105	137	17	43	80	0.263	1
	* 110	6	PB.110.S06/S	6.3	125	157	18	37	80	0.370	1
	* 125	6	PB.125.S06/S	7.1	132	157	18	35	80	0.340	1
	* 140	6	PB.140.S06/S	8.0	155	187	18	34	80	0.520	1
	* 160	6	PB.160.S06/S	9.1	175	211	18	34	80	0.680	1
	* 180	6	PB.180.S06/S	10.2	180	211	20	30	80	0.605	1
	* 200	6	PB.200.S06/S	11.4	232	268	24	36	120	1.530	1
	* 225	6	PB.225.S06/S	12.8	235	268	24	46	120	1.460	1
	* 250	6	PB.250.S06/S	14.2	285	320	25	35	120	2.220	1
	* 280	6	PB.280.S06/S	15.9	291	320	25	45	120	2.020	1
	* 315	6	PB.315.S06/S	17.9	335	370	25	35	120	2.960	1
	* 355	6	PB.355.S06/S	20.1	373	430	30	50	120	3.900	1
	* 400	6	PB.400.S06/S	22.7	427	482	33	42	140	5.690	1

* Manufactured from Random Copolymer PP (PP-R)

All dimensions in mm

2-Way Ball Valve – Double Union Manual Operation

FUSION SOCKETS	d	DN	PN bar	EPDM	FPM	L	Weight (g)
	20	15	10	PM.020.B1-	PM.020.B2-	100	160
	25	20	10	PM.025.B1-	PM.025.B2-	113	230
	32	25	10	PM.032.B1-	PM.032.B2-	124	280
	40	32	10	PM.040.B1-	PM.040.B2-	140	470
	50	40	10	PM.050.B1-	PM.050.B2-	164	740
	63	50	10	PM.063.B1-	PM.063.B2-	192	1100
	75	65	10	PM.075.B1-	PM.075.B2-	232	2280
	90	80	6	PM.090.B1-	PM.090.B2-	286	3870
	110	80	6	PM.110.B1-	PM.110.B2-	295	3870

FUSION SPIGOTS (for socket fusion only)	d	DN	PN bar	EPDM	FPM	L	Weight (g)
	20	15	10	PM.020.B12	PM.020.B22	124	160
	25	20	10	PM.025.B12	PM.025.B22	144	230
	32	25	10	PM.032.B12	PM.032.B22	154	280
	40	32	10	PM.040.B12	PM.040.B22	174	470
	50	40	10	PM.050.B12	PM.050.B22	194	740
	63	50	10	PM.063.B12	PM.063.B22	224	1100
	75	65	10	PM.075.B12	PM.075.B22	284	2280
	90	80	6	PM.090.B12	PM.090.B22	300	3870
Please contact our sales office for Fusion Spigot valves suitable for Butt Welding	110	80	6	PM.110.B12	PM.110.B22	340	3870

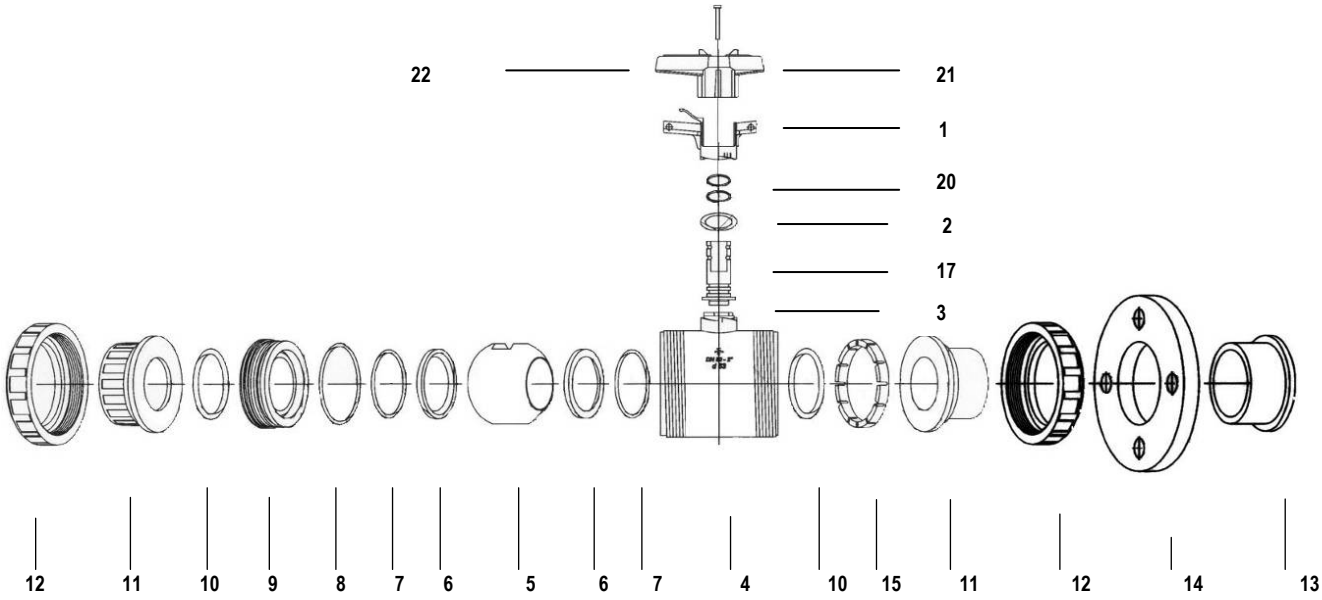
FLANGED	d	DN	PN bar	EPDM	FPM
	20	15	10	PM.020.B1F	PM.020.B2F
	25	20	10	PM.025.B1F	PM.025.B2F
	32	25	10	PM.032.B1F	PM.032.B2F
	40	32	10	PM.040.B1F	PM.040.B2F
	50	40	10	PM.050.B1F	PM.050.B2F
	63	50	10	PM.063.B1F	PM.063.B2F
	75	65	10	PM.075.B1F	PM.075.B2F
	90	80	6	PM.090.B1F	PM.090.B2F
	110	80	6	PM.110.B1F	PM.110.B2F

Dimensions Common to all Ball Valves	d	A	Z	t	D	H	B
	20	62	68	16	53	72	40
	25	69	79	17	62	77	52
	32	73	84	20	70	81	52
	40	83	96	22	84	99	64
	50	94	114	25	100	107	73
	63	108	134	29	121	116	85
	75	133	162	35	155	142	110
	90	160	208	39	187	160	132
	110	160	207	44	187	160	132

All dimensions in mm

2-Way Ball Valve – Double Union Manual Operation (Continued….)

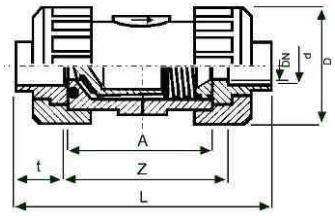
• Full Bore (20mm to 90mm)	Suitable for pressure pipelines and drainage of hazardous fluids.
• Polypropylene Body	Resistant to corrosive fluids at temperatures from 0°C to 80°C.
• PP Nuts Reinforced with Glass	Long working life.
• True Union Design	Enables installation or servicing without disturbing pipeline.
• Double Sided Ball Blocking	Safety Design. Downstream piping may be disconnected under full line pressure without leakage.
• Seats	PTFE backed up with O-rings to ensure leak free shut off and long working life.
• O-rings	EPDM resistant to corrosive chemicals. FPM available for more hostile applications.
• Double Shaft Seals	Gives maintenance free working and eliminates leakage.
• Range	Sizes 16mm → 75mm pressure rated 10 bar. Sizes 90mm and 110mm pressure rated to 6 bar.
• Choice of End Connectors	Fusion sockets, fusion spigots, and threaded sockets. Flanged ends to customer specification.
• Valve Support Brackets	Available for all sizes.
• Spare Parts	Available for all sizes
• Clear Polythene Packaging	For ease of identification and protection in transit and storage.
• Actuators	Pneumatic or electric to customer specification.
• Quality Control	Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.



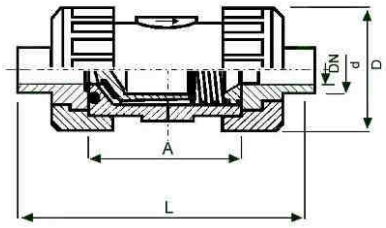
No.	Description	No.	Description	No.	Description
1.	Handle	8.	O-ring	15.	Retaining Ring
2.	O-ring	9.	Thrust Collar	17.	O-ring
3.	Shaft	10.	O-ring	20.	Spring Loaded Locking Sleeve
4.	Body	11.	Connection	21.	Spigot
5.	Ball	12.	Union Nut	22.	Screw and Screw Cover
6.	Ball Seating Joint	13.	Flange Adaptor		
7.	O-ring	14.	Flange		

Non-Return Valve - Cone Type with Spring

FUSION SOCKETS	d	DN	PN bar	EPDM	FPM	L	Weight (g)
	20	15	10	PM.020.C1-	PM.020.C2-	100	120
	25	20	10	PM.025.C1-	PM.025.C2-	113	180
	32	25	10	PM.032.C1-	PM.032.C2-	124	230
	40	32	10	PM.040.C1-	PM.040.C2-	140	370
	50	40	10	PM.050.C1-	PM.050.C2-	164	580
	63	50	10	PM.063.C1-	PM.063.C2-	192	820
	75	65	10	PM.075.C1-	PM.075.C2-	232	1720
	90	80	6	PM.090.C1-	PM.090.C2-	286	3280
	110	80	6	PM.110.C1-	PM.110.C2-	315	3280



FUSION SPIGOTS (for socket fusion only)	d	DN	PN bar	EPDM	FPM	L	Weight (g)
	20	15	10	PM.020.C12	PM.020.C2-	124	120
	25	20	10	PM.025.C12	PM.025.C2-	144	180
	32	25	10	PM.032.C12	PM.032.C2-	154	230
	40	32	10	PM.040.C12	PM.040.C2-	174	370
	50	40	10	PM.050.C12	PM.050.C2-	194	580
	63	50	10	PM.063.C12	PM.063.C2-	224	820
	75	65	10	PM.075.C12	PM.075.C2-	284	1720
	90	80	6	PM.090.C12	PM.090.C2-	300	3280
	110	80	6	PM.110.C12	PM.110.C2-	340	3280



Please contact our sales office for Fusion Spigot valves suitable for Butt Welding

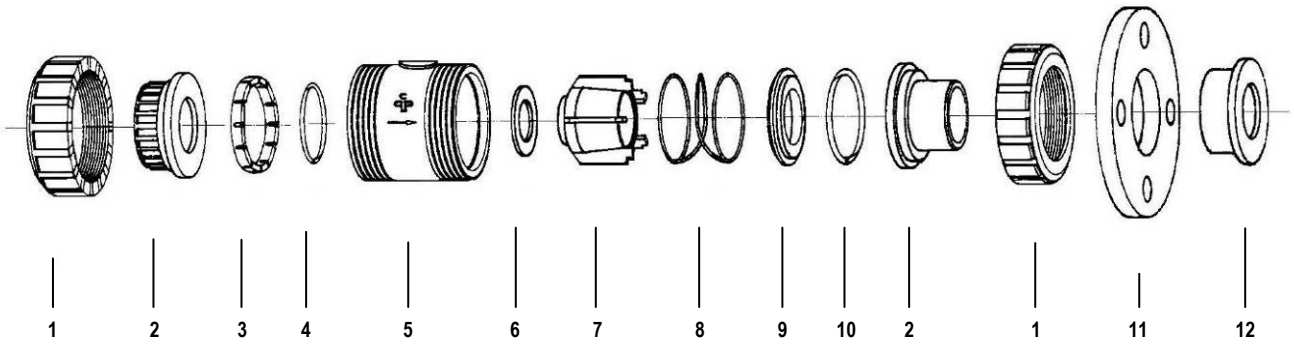
FLANGED	d	DN	PN bar	EPDM	FPM
	20	15	10	PM.020.C1F	PM.020.C2F
	25	20	10	PM.025.C1F	PM.025.C2F
	32	25	10	PM.032.C1F	PM.032.C2F
	40	32	10	PM.040.C1F	PM.040.C2F
	50	40	10	PM.050.C1F	PM.050.C2F
	63	50	10	PM.063.C1F	PM.063.C2F
	75	65	10	PM.075.C1F	PM.075.C2F
	90	80	6	PM.090.C1F	PM.090.C2F
	110	80	6	PM.110.C1F	PM.110.C2F

Dimensions Common to all Non Return Valves	d	A	Z	t	D	B
	20	62	68	16	53	40
	25	69	79	17	62	52
	32	73	84	20	70	52
	40	83	96	22	84	64
	50	94	114	25	100	73
	63	108	134	29	121	85
	75	133	162	35	155	110
	90	160	208	39	187	132
	110	160	207	44	187	132

All dimensions in mm

Non-Return Valve – Cone type with spring (Continued….)

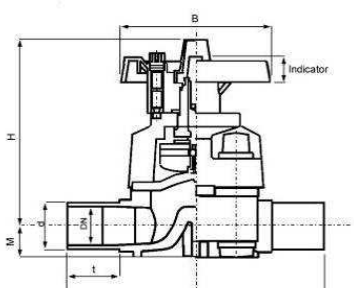
- Non-Return — One way operation. Spring to control opening and closing. Suitable for pumps, compressors and fluids in vertical and horizontal applications. Not suitable for slurries or fluids containing solids.
- Full Sectional Area of Flow — Non restrictive area is equal to the full nominal bore. Low pressure loss and suitable for high flow rates
- Polypropylene Body and Cone PP Nuts, Glass Reinforced — Resistant to corrosive fluids at temperatures from 0°C to 80°C. Long working life.
- True Union Design — Enables installation or servicing without disturbing pipeline.
- Spring Loaded — Can be used in horizontal and vertical applications. Spring coated with PTFE.
- O-rings and Seals — EPDM resistant to corrosive chemicals. FPM available for more hostile applications.
- Range — Sizes 16mm → 75mm pressure rated 10 bar.
  Sizes 90mm and 110mm pressure rated to 6 bar.
- Choice of End Connectors — Fusion sockets, fusion spigots, and threaded sockets. Flanged ends to customer specification.
- Spare Parts — Available for all sizes
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- **Quality Control** — **Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.**

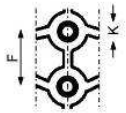


	Description		Material	No.	Description	Material
1.	Union Nut		PP	6.	Gasket	EPDM/FPM
2.	Fusion Socket	Metric/In	PP	7.	Hollow Cone	PP
	Threaded	Inch	PP	8.	Spring	SS/PTFE
	Fusion Spigot	Metric	PP	9.	Thrust Collar	PP
3.	Retaining Ring		PP	10.	O-ring	EPDM/FPM
4.	O-ring		EPDM/FPM	11.	Backing Ring	As required
5.	Body		PP	12.	Flange Adaptor	PP

Diaphragm Valve Manual Operation

FUSION SPIGOTS (for socket fusion only)	d	DN	PN bar	Kv100 l/m Δ = 1 bar	EPDM DIAPHRAGM	PTFE / FPM DIAPHRAGM	Weight (g)
	20	15	10	72	PM.020.D12	PM.020.D32	160
	25	20	10	93	PM.025.D12	PM.025.D32	230
	32	25	10	221	PM.032.D12	PM.032.D32	280
	40	32	10	450	PM.040.D12	PM.040.D32	470
	50	40	10	500	PM.050.D12	PM.050.D32	740
	63	50	10	875	PM.063.D12	PM.063.D32	1100
	75	65	10		PM.075.D12	PM.075.D32	2280
	90	80	10		PM.090.D12	PM.090.D32	3870
	110	80	10		PM.110.D12	PM.110.D32	3870





Mounting hole as seen from underneath valve

d	M	H	B	F	Lift	K	L	t
20	17	100	86	25	9	M6	124	29
25	17	100	86	25	9	M6	144	36
32	20	107	86	25	11	M6	154	36
40	32	144	136	44	22	M8	174	39
50	32	144	136	44	22	M8	194	46
63	39	170	136	44	28	M8	224	46
75	25	260	234		35		284	37
90	25	260	234		35		300	37
110	25	330	234		45		340	50

Please contact our sales office for Fusion Spigot valves suitable for Butt Welding

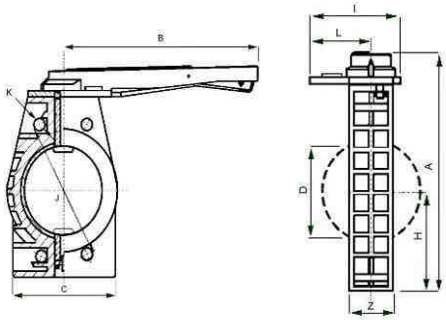
All dimensions in mm

- Polypropylene Body — Suitable for corrosive fluids and slurries to 15% concentration in hygienic pharmaceutical and bioprocessing applications.
- Temperature Range — Temperature range 0°C to 80°C.
- EPDM Diaphragm — Expected life 100,000 cycles. EPDM/PTFE coated available for more hostile applications.
- Safety Design / High Integrity Shut-off — Locatable handwheel positioning, easy manual operation, open/shut indicator.
- Range — Sizes 20 → 90mm pressure rated 10 bar.
- No Seals or Glands — Maintenance free (diaphragm easily replaced).
- Choice of End Connectors — Fusion spigots (flanged ends to customer specification).
- Spare Parts — Available for all sizes
- Support Bracket — For ease of installation.
- Actuator — Pneumatic to customer specification.
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- Quality Control — Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.

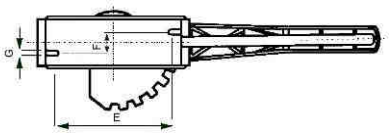
Butterfly Valve Manual Operation

FLANGED	d	DN	PN bar	Kv100 1/m Δ= 1bar	EPDM	FPM	Weight (g)
	90	80	10	3000	PM.090.BF1	PM.090.BF2	1300
	110	100	10	6500	PM.110.BF1	PM.110.BF2	1620
	140	125	10	11500	PM.140.BF1	PM.140.BF2	2300
	160	150	6	16600	PM.160.BF1	PM.160.BF2	3580
	225	200	6	39600	PM.225.BF1	PM.225.BF2	5040

d	A	B	C	D	E	F	G
90	258	270	130	74	90	10	9
110	287	270	154	90	88	10	11
140	321	270	187	116	130	10	11
160	349	380	215	133	164	16	11
225	421	380	272	203	164	22	11



d	H	I	J	K	L	Z
90	105	113	153-160	19	78	49
110	119	113	180-191	19	78	56
140	129	113	210-216	22	78	64
160	148	141	240	22	94	70
225	178	141	295-298	22	94	71



90 – 160mm suitable for BS4504 Table 10 & 16, and ASA150
225mm suitable for BS4504 Table 10 and ASA150

160 – 225mm require Flanges to be internally chamfered

All dimensions in mm

Adaptor flanges may be required to allow clearance of butterfly valve –
Please consult technical department for further information

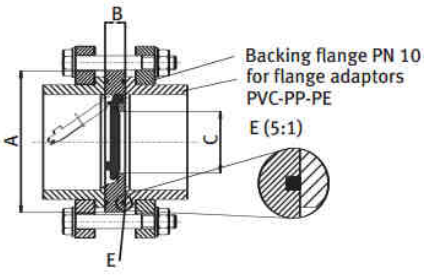
- Polypropylene Body — Resistant to impact damage and corrosive fluids at temperatures from 0°C to 80°C. Long working life.
- Double lip seal — EPDM. High integrity sealing. Resistant to abrasion and corrosive chemicals Resists jamming, prevents leakage. FPM available for more hostile applications.
- Encased stainless steel shaft — Secure – cannot blow out. Protected from contact with corrosive fluids.
- Locking handle — "Safety" On/Off control with 15° graduations.
- Range — Sizes 90mm → 140mm pressure rated 10 bar. 160/225mm pressure rated 6 bar.
- Actuators — Electric or pneumatic to customer specification.
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- Quality Control — Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.

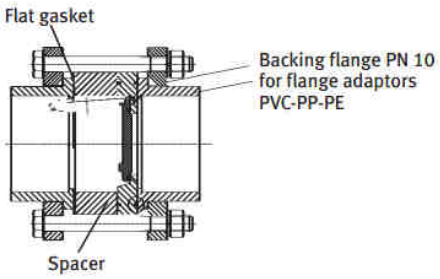
Wafer Check Valve (S4)

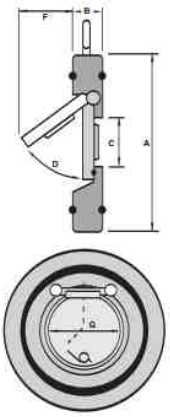
d	DN	PN bar	Kv10 1/m Δ= 1bar	EPDM	FPM	Weight lb (inc spacer)
2	50	10	950	PM.050.BC1	PM.050.BC2	0.9
2 ½	65	10	1255	PM.065.BC1	PM.065.BC2	2.1
3	80	10	1650	PM.080.BC1	PM.080.BC2	1.6
4	100	10	3190	PM.100.BC1	PM.100.BC2	3.1
6	150	10	9500	PM.150.BC1	PM.150.BC2	4.7
8	200	10	14100	PM.200.BC1	PM.200.BC2	11.0
10	250	10	26900	PM.250.BC1	PM.250.BC2	17.4
12	300	10	32000	PM.300.BC1	PM.300.BC2	28.3
14	350	3	50000	PM.350.BC1	PM.350.BC2	-
16	400	3	60500	PM.400.BC1	PM.400.BC2	-
20	500	2	80500	PM.500.BC1	PM.500.BC2	-

All dimensions in mm

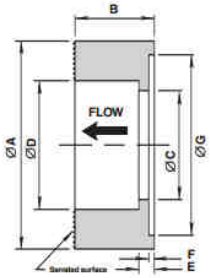
Adaptor flanges may be required to allow clearance of wafer check valve –
Please consult technical department for further information







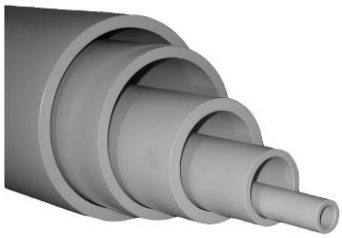
SPACER



pipe size	inch	2	2 1/2	3	4	6	8	10	12	14	16	18	20
pipe size DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
A	mm	109	123	137	164	220	275	330	380	440	491	541	596
A	in	4.3	4.85	5.39	6.45	8.66	10.82	12.99	14.96	17.32	19.33	21.3	23.46
B	mm	20	20	20	22	26	35	40	45	49	65	68	78
B	in	.787	.787	.787	.866	1.02	1.377	1.57	1.77	1.93	2.56	2.67	3
C	mm	32	40	52	70	112	150	190	216	266	310	350	400
C	in	1.26	1.57	2.04	2.76	4.4	5.9	7.48	8.62	10.47	12.2	13.78	15.75
D° opening angle	deg	68	73	75	73	72	77	73	74	70	70	70	70
E	mm	46	58	60	72	76	105	140	195	N/A	N/A	N/A	N/A
E	in	1.81	2.28	2.36	2.83	2.99	4.13	5.5	7.67	N/A	N/A	N/A	N/A
F (with spring)	in	1.8	2.0	2.9	3.6	5.8	7.5	9.0	10.2	9.64	11.22	13	15.15
G (disc diameter)	mm	45	60	72	90	132	176	222	260	300	340	390	440
G (disc diameter)	in	1.77	2.36	2.83	3.54	5.19	6.93	8.74	10.23	11.81	13.38	15.35	17.32
Pressure PN	bar	10	10	10	10	10	10	10	10	3	3	2	2
Pressure rating	PSI	145	145	145	145	145	145	145	145	43.5	43.5	27	27

Polypropylene (Imperial Range) — Pipe 6m Length

NORMAL GAUGE	n.b.	Av. OD	Pressure Class	PN bar	CODE	Min. Wall	Weight (Kg/m)	Pack Qty (Lengths)
	1½"	48.3	C	9	PI.048.PNG	4.1	0.55	5
	2"	60.3	B	6	PI.060.PNG	3.5	0.61	3
	3"	88.9	B	6	PI.089.PNG	5.2	1.32	1
	4"	114.3	B	6	PI.114.PNG	6.6	2.16	1
	6"	168.4	A	3	PI.168.PNG	5.0	2.45	1
HEAVY GAUGE	**n.b.**	**Av. OD**	**Pressure Class**	**PN bar**	**CODE**	**Min. Wall**	**Weight (Kg/m)**	**Pack Qty (Lengths)**
	½"	21.3	E	15	PI.021.PHG	2.9	0.16	10
	¾"	26.7	E	15	PI.026.PHG	3.6	0.25	10
	1"	33.5	D	12	PI.033.PHG	3.7	0.33	10
	1¼"	42.3	D	12	PI.042.PHG	4.6	0.53	5
	1½"	48.3	D	12	PI.048.PHG	5.3	0.69	5
	2"	60.3	D	12	PI.060.PHG	6.6	1.07	3
	3"	88.9	C	9	PI.089.PHG	7.5	1.85	1
	4"	114.3	C	9	PI.114.PHG	9.6	3.04	1
	6"	168.4	B	6	PI.168.PHG	9.8	4.71	1



All dimensions in mm

Notes:

- Non standard sizes and lengths are available to customer specification.
- Pipes are polythene wrapped. (Orders of less than standard pack quantity may be delivered unwrapped).
- Normal gauge pipes are not suitable for threading.
- PP-H pipes available on request – please consult our Sales Office.

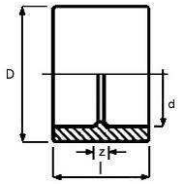
OD and Wall Tolerances:

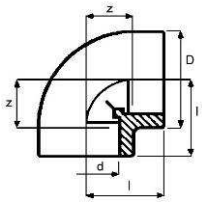
- Chemflo-PP imperial pipes are manufactured to dimensional standards and tolerances detailed in BS 4991:1974. Eg. 2" Normal Gauge: Pressure Class B, Mean OD 60.1 → 60.6mm, wall 3.5 → 3.9mm

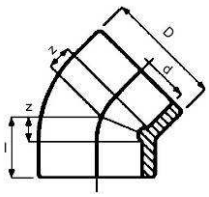
If Chemflo-PP pipes are required for purposes requiring more precise dimensions please consult our Sales Office.

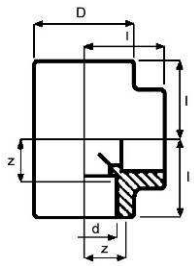
Polypropylene (Imperial Range)

Socket Welded Fittings

COUPLER	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PI.021.C--	27	38	4	10	5
	¾"	10	PI.026.C--	34	42	4	16	5
	1"	10	PI.033.C--	41	50	4	24	5
	1¼"	10	PI.042.C--	52	49	3	32	5
	1½"	10	PI.048.C--	61	53	3	56	5
	2"	10	PI.060.C--	77	61	3	100	5
	3"	10	PI.089.C--	110	81	5	235	2
	4"	10	PI.114.C--	134	96	6	340	1
	6"	10	PI.168.C--	188	108	8	830	1

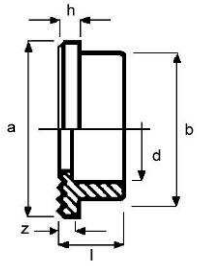
90° ELBOW	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PI.021.E--	27	29	12	14	5
	¾"	10	PI.026.E--	34	34	14	26	5
	1"	10	PI.033.E--	41	41	18	40	5
	1¼"	10	PI.042.E--	52	45	22	130	5
	1½"	10	PI.048.E--	61	52	27	102	5
	2"	10	PI.060.E--	77	63	34	190	5
	3"	10	PI.089.E--	110	86	48	465	2
	4"	10	PI.114.E--	134	105	60	800	1
	* 6"	6	PI.168.E--	193	193	142	2276	1

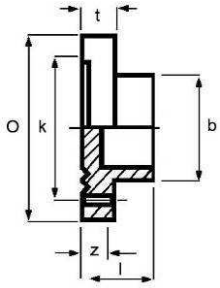
45° ELBOW	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PI.021.A--	27	22	5	10	5
	¾"	10	PI.026.A--	34	26	6	18	5
	1"	10	PI.033.A--	41	30	7	26	5
	1¼"	10	PI.042.A--	52	33	10	44	5
	1½"	10	PI.048.A--	61	38	13	78	5
	2"	10	PI.060.A--	77	44	15	145	5
	3"	10	PI.089.A--	110	61	23	350	2
	4"	10	PI.114.A--	134	71	26	580	1
	*	6	PI.168.A--	192	110	59	1770	1

TEE	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PI.021.T--	27	29	12	18	5
	¾"	10	PI.026.T--	34	34	14	32	5
	1"	10	PI.033.T--	41	41	18	50	5
	1¼"	10	PI.042.T--	52	45	22	170	5
	1½"	10	PI.048.T--	61	52	27	130	5
	2"	10	PI.060.T--	77	63	34	250	5
	3"	10	PI.089.T--	110	86	48	590	2
	4"	10	PI.114.T--	134	105	60	970	1
	*	6	PI.168.T--	196	137	86	3000	1

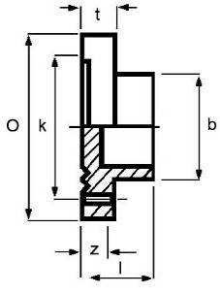
* Fabricated.
All dimensions in mm

Polypropylene (Imperial Range) — Socket Welded Fittings

STUB FLANGE	n.b.	PN bar	CODE	a	b	h	l	z	Weight (g)	Pack Qty
 	½"	10	PI.021.S--	34	27	6	19	2	6	5
	¾"	10	PI.026.S--	41	33	7	22	2	10	5
	1"	10	PI.033.S--	50	41	7	24	1	16	5
	1¼"	10	PI.042.S--	61	50	8	26	3	26	5
	1½"	10	PI.048.S--	73	61	8	28	3	36	5
	2"	10	PI.060.S--	90	76	9	32	3	58	5
	3"	10	PI.089.S--	12	108	1	43	5	135	2
	4"	10	PI.114.S--	15	131	1	50	5	200	1
	6"	10	PI.168.S--	21	192	2	58	8	550	1

FULL FACE FLANGE	n.b.	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	½"	10	PI.021.F--	27	19	12	95	2	68	5
	¾"	10	PI.026.F--	33	22	12	105	2	81	5
	1"	10	PI.033.F--	41	24	12	115	1	103	5
	1¼"	10	PI.042.F--	50	26	12	136	3	109	5
	1½"	10	PI.048.F--	61	28	14	149	3	157	5
	2"	10	PI.060.F--	76	32	18	160	3	264	5
	3"	10	PI.089.F--	108	43	18	200	5	440	2
	4"	10	PI.114.F--	131	50	22	228	5	640	1
	6"	10	PI.168.F--	192	58	22	285	8	950	1

Suitable backing rings should be used to obtain maximum working pressure.
Undrilled flanges available to order.

BLANK FLANGE	n.b.	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	½"	10	PM.020.P--	27	19	12	95	5	10	5
	¾"	10	PM.025.P--	33	22	12	105	6	18	5
	1"	10	PM.032.P--	41	24	12	115	6	24	5
	1¼"	10	PM.040.P--	50	26	12	136	6	40	5
	1½"	10	PM.050.P--	61	28	14	149	5	50	5
	2"	10	PM.063.P--	76	32	18	160	5	88	5
	3"	10	PM.090.P--	108	43	18	200	8	235	2
	4"	10	PM.110.P--	131	50	22	228	9	400	1
	6"	10	PM.160.P--	192	58	22	285	9	810	1

Suitable backing rings should be used to obtain maximum working pressure.

DRILLINGS

Common to Full Face Flanges and Blank Flanges:

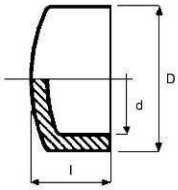
1 = BS 1560 / asa150
2 = BS 10 Table D
3 = BS 10 Table E
4 = BS 4504 Table 6
5 = BS 4504 Table 10
6 = BS 4504 Table 16

d	k PCD	Holes	1	2	3	4	5	6
20	60 – 67	4 x 14	✓	✓	✓		✓	✓
25	69 – 75	4 x 14	✓	✓	✓	✓	✓	✓
32	79 – 85	4 x 14	✓	✓	✓		✓	✓
40	87 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
50	98 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
63	110 – 125	4 x 18	✓	✓	✓	✓	✓	✓
90	145 – 160 / 160	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
110	170 – 191 / 177 –	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
160	242 – 255	8 x 22	✓	✓	✓		✓	✓

All dimensions in mm

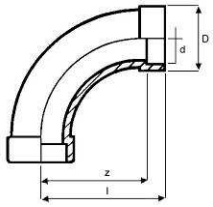
Polypropylene (Imperial Range) — Socket Welded Fittings

END CAP



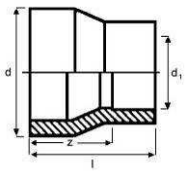
n.b.	PN bar	CODE	D	l	Weight (g)	Pack Qty
½"	10	PI.021.EC-	27	28	6	5
¾"	10	PI.026.EC-	34	30	10	5
1"	10	PI.033.EC-	41	34	16	5
1¼"	10	PI.042.EC-	51	36	28	5
1½"	10	PI.048.EC-	61	40	40	5
2"	10	PI.060.EC-	77	46	84	5
3"	10	PI.089.EC-	110	61	210	2
4"	10	PI.114.EC-	134	75	305	1

90° BEND



n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
½"	10	PI.021.B--	35	73	59	68	1
¾"	10	PI.026.B--	38	80	44	52	1
1"	10	PI.033.B--	45	85	68	70	1
1¼"	10	PI.042.B--	51	101	81	93	1
1½"	10	PI.048.B--	60	93	70	130	1
2"	10	PI.060.B--	74	106	79	225	1

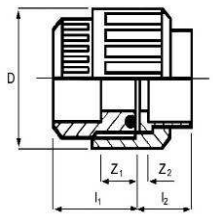
REDUCING BUSH Spigot x Socket



d = Spigot d_1 = Socket

n.b.	PN bar	CODE	l	z	Weight (g)	Pack Qty
¾ x ½"	10	PI.026.R01	38	23	10	5
1 x ½"	10	PI.033.R02	46	29	14	5
1 x ¾"	10	PI.033.R01	46	26	16	5
1¼ x 1"	10	PI.042.R01	48	26	20	5
1½ x 1"	10	PI.048.R02	57	33	34	5
1½ x 1¼"	10	PI.048.R01	51	28	54	5
2 x 1"	10	PI.060.R03	57	35	54	5
2 x 1¼"	10	PI.060.R02	64	39	56	5
2 x 1½"	10	PI.060.R01	56	32	40	5
3 x 1½"	10	PI.089.R02	91	66	135	2
3 x 2"	10	PI.089.R01	81	52	150	2
4 x 2"	10	PI.114.R02	81	50	210	1
4 x 3"	10	PI.114.R01	86	49	220	1
6 x 4"	10	PI.168.R01	143	100	600	1

UNION Socket Fusion / EPDM Seal

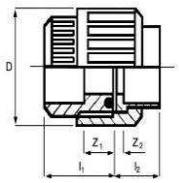


n.b.	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
½"	10	PI.021.U--	46	36	19	19	2	51	1
¾"	10	PI.026.U--	53	37	22	17	2	68	1
1"	10	PI.033.U--	62	38	24	15	1	92	1
1¼"	10	PI.042.U--	74	41	26	18	3	143	1
1½"	10	PI.048.U--	107	46	28	21	3	207	1
2"	10	PI.060.U--	106	51	32	22	3	338	1

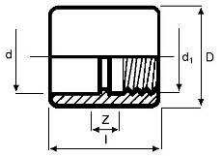
All dimensions in mm

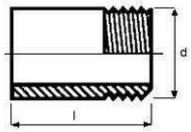
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations).
- EPDM O-ring standard. FPM O-ring available to order

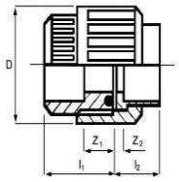
Polypropylene (Imperial Range) — Adapter Fittings

UNION Socket Fusion x FBSP Thread / EPDM	n.b.	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	½"	6	PI.021.U07	46	36	19	22	5	51	1
	¾"	6	PI.026.U07	53	37	22	21	6	68	1
	1"	6	PI.033.U07	62	38	24	20	6	92	1
	1¼"	6	PI.042.U07	74	41	26	21	6	143	1
	1½"	6	PI.048.U07	107	46	28	23	5	207	1
	2"	6	PI.060.U07	106	51	32	24	5	338	1

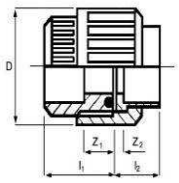
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations). Threaded stub end.
- EPDM O-ring standard. FPM O-ring available to order

SOCKET ADAPTOR Socket Fusion x FBSP	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	6	PI.021.C07	32	36	7	10	1
	¾"	6	PI.026.C07	34	41	9	16	1
	1"	6	PI.033.C07	45	45	9	22	1
	1¼"	6	PI.042.C07	52	49	8	40	1
	1½"	6	PI.048.C07	61	53	6	54	1
	2"	6	PI.060.C07	77	61	6	96	1
	3"	6	PI.089.C07	110	80	10	250	1
	4"	6	PI.114.C07	134	95	13	400	1

NIPPLE Plain x MBSPTr Thread	d	PN bar	CODE	l	Weight (g)	Pack Qty
 	½"	6	PI.021.NP2	55	10	5
	¾"	6	PI.026.NP2	58	16	5
	1"	6	PI.033.NP2	63	20	5
	1¼"	6	PI.042.NP2	68	38	5
	1½"	6	PI.048.NP2	68	38	5
	2"	6	PI.060.NP2	76	70	5
	3"	6	PI.089.NP2	92	135	2
	4"	6	PI.114.NP2	115	180	1

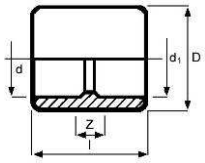
UNION Socket Fusion Metric x Inch / EPDM Seal	d x d_1	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	20 x ½"	10	PM.020.UT-	46	36	19	22	5	51	1
	25 x ¾"	10	PM.025.UT-	53	37	22	21	6	68	1
	32 x 1"	10	PM.032.UT-	62	38	24	20	6	92	1
	40 x 1¼"	10	PM.040.UT-	74	41	26	21	6	143	1
	50 x 1½"	10	PM.050.UT-	107	46	28	23	5	207	1
	63 x 2"	10	PM.063.UT-	106	51	32	24	5	338	1

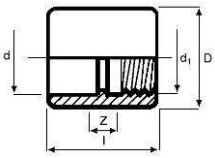
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations). EPDM O-ring standard. FPM O-ring available to order

UNION Socket Fusion x FBSP Thread / EPDM	d x d_1	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	20 x ½"	6	PM.020.U07	46	36	19	22	5	51	1
	25 x ¾"	6	PM.025.U07	53	37	22	21	6	68	1
	32 x 1"	6	PM.032.U07	62	38	24	20	6	92	1
	40 x 1¼"	6	PM.040.U07	74	41	26	21	6	143	1
	50 x 1½"	6	PM.050.U07	107	46	28	23	5	207	1
	63 x 2"	6	PM.063.U07	106	51	32	24	5	338	1

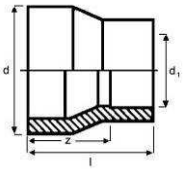
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations). Threaded stub end.
- EPDM O-ring standard. FPM O-ring available to order . All dimensions in mm

Polypropylene (Imperial Range) — Adapter Fittings

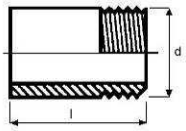
SOCKET ADAPTOR Socket Fusion	**d x d_1**	**PN bar**	**CODE**	**D**	**l**	**z**	**Weight (g)**	**Pack Qty**
 	20 x ½"	10	PM.020.M--	27	37	6	10	1
	25 x ¾"	10	PM.025.M--	34	42	7	16	1
	32 x 1"	10	PM.032.M--	41	49	8	24	1
	40 x 1¼"	10	PM.040.M--	52	49	5	25	1
	50 x 1½"	10	PM.050.M--	61	53	5	124	1
	63 x 2"	10	PM.063.M--	77	61	5	96	1
	90 x 3"	10	PM.090.M--	110	81	8	240	1
	110 x 4"	10	PM.110.M--	135	96	10	370	1
	160 x 6"	10	PM.160.M--	196	108	10	1050	1

SOCKET ADAPTOR Socket Fusion x FBSP	**d x d_1**	**PN bar**	**CODE**	**D**	**l**	**z**	**Weight (g)**	**Pack Qty**
 	20 x ½"	6	PM.020.C07	32	36	7	10	1
	25 x ¾"	6	PM.025.C07	34	41	9	16	1
	32 x 1"	6	PM.032.C07	45	45	9	22	1
	40 x 1¼"	6	PM.040.C07	52	49	8	40	1
	50 x 1½"	6	PM.050.C07	61	53	6	54	1
	63 x 2"	6	PM.063.C07	77	61	6	96	1
	90 x 3"	6	PM.090.C07	110	80	10	250	1
	110 x 4"	6	PM.110.C07	134	95	13	400	1

All dimensions in mm

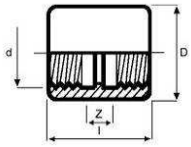
REDUCING BUSH Spigot x Socket	**d x d_1**	**PN bar**	**CODE**	**l**	**z**	**Weight (g)**	**Pack Qty**
 	90 x 2"	10	PM.090.RM-	81	54	145	1
	110 x 2"	10	PM.110.RM-	85	56	210	1

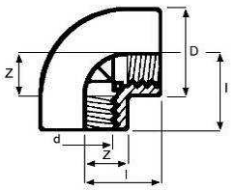
d = Spigot d_1 = Socket

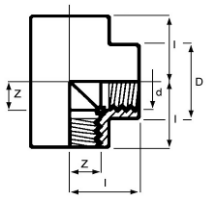
NIPPLE Plain x MBSPTr Thread	**d**	**PN bar**	**CODE**	**l**	**Weight (g)**	**Pack Qty**
 	20 x ½"	6	PM.020.NP-	55	8	5
	25 x ¾"	6	PM.025.NP-	58	10	5
	32 x 1"	6	PM.032.NP-	65	17	5
	40 x 1¼"	6	PM.040.NP-	68	29	5
	50 x 1½"	6	PM.050.NP-	68	44	5
	63 x 2"	6	PM.063.NP-	76	76	5

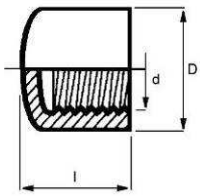
All dimensions in mm

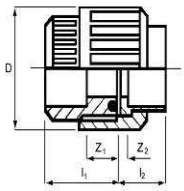
Polypropylene (Imperial Range) — Threaded Fittings

COUPLER FBSP	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	6	PI.021.C7-	27	38	4	10	5
	¾"	6	PI.026.C7-	34	42	4	16	5
	1"	6	PI.033.C7-	48	50	4	24	5
	1½"	6	PI.048.C7-	61	53	3	56	5
	2"	6	PI.060.C7-	77	61	3	100	5
	3"	6	PI.089.C7-	110	81	5	235	2
	4"	6	PI.114.C7-	134	96	6	340	1

90° ELBOW FBSP	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	6	PI.021.E7-	27	29	12	14	5
	¾"	6	PI.026.E7-	34	34	14	26	5
	1"	6	PI.033.E7-	48	41	18	40	5
	1½"	6	PI.048.E7-	61	52	27	102	5
	2"	6	PI.060.E7-	77	63	34	190	5
	3"	6	PI.089.E7-	110	86	48	465	2
	4"	6	PI.114.E7-	134	105	60	830	1

TEE FBSP	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	6	PI.021.T7-	27	29	12	18	5
	¾"	6	PI.026.T7-	34	34	14	32	5
	1"	6	PI.033.T7-	41	41	18	50	5
	1½"	6	PI.048.T7-	61	52	27	130	5
	2"	6	PI.060.T7-	77	65	34	250	5
	3"	6	PI.089.T7-	110	86	48	590	2
	4"	6	PI.114.T7-	134	105	60	970	1

END CAP FBSP	d	PN bar	CODE	D	l	Weight (g)	Pack Qty
 	½"	6	PI.021.EC7	30	27	9	5
	¾"	6	PI.026.EC7	36	27	12	5
	1"	6	PI.033.EC7	46	30	25	5
	1½"	6	PI.048.EC7	63	35	44	5
	2"	6	PI.060.EC7	78	43	74	5
	3"	6	PI.089.EC7	110	53	210	2
	4"	6	PI.114.EC7	134	70	305	1

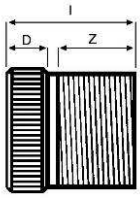
UNION FBSP/EPDM	n.b.	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	½"	6	PI.021.U7-	46	36	19	22	5	51	1
	¾"	6	PI.026.U7-	53	37	22	21	6	68	1
	1"	6	PI.033.U7-	62	38	24	20	6	92	1
	1¼"	6	PI.042.U7-	74	41	26	21	6	143	1
	1½"	6	PI.048.U7-	10	46	28	23	5	207	1
	2"	6	PI.060.U7-	10	51	32	24	5	338	1

- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations). EPDM O-ring standard. FPM O-ring available to order

All dimensions in mm

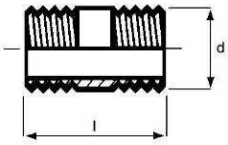
Polypropylene (Imperial Range) — Threaded Fittings

PLUG MBSP



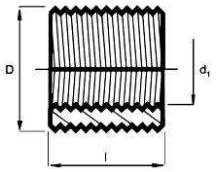
d	PN bar	CODE	D	l	Weight (g)	Pack Qty
½"	6	PI.021.PG7	13	32	10	5
¾"	6	PI.026.PG7	13	33	16	5
1"	6	PI.033.PG7	13	36	24	5
1½"	6	PI.048.PG7	15	41	56	5
2"	6	PI.060.PG7	15	45	100	5

NIPPLE MBSPTr x MBSPTr



d	PN bar	CODE	l	Weight (g)	Pack Qty
½"	6	PI.021.NP3	55	10	5
¾"	6	PI.026.NP3	58	16	5
1"	6	PI.033.NP3	63	20	5
1½"	6	PI.048.NP3	68	38	5
2"	6	PI.060.NP3	76	70	5
3"	6	PI.089.NP3	92	135	2
4"	6	PI.114.NP3	115	180	1

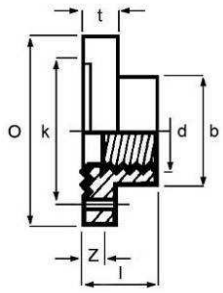
REDUCING BUSH MBSPTr x FBSP



D x d_1	PN bar	CODE	l	Weight (g)	Pack Qty
¾ x ½"	6	PI.026.R71	24	4	5
1 x ½"	6	PI.033.R72	27	12	5
1 x ¾"	6	PI.033.R71	27	8	5
1½ x 1"	6	PI.048.R72	30	24	5
2 x 1"	6	PI.060.R73	34	65	5
2 x 1½"	6	PI.060.R71	34	44	5

D = MBSP d_1 = FBSP

FULL FACE FLANGE FBSP



d	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
½"	6	PI.021.F7-	27	19	12	95	3	64	5
¾"	6	PI.026.F7-	33	22	12	105	4	80	5
1"	6	PI.033.F7-	41	24	12	115	4	100	5
1½"	6	PI.048.F7-	61	28	14	149	1	155	5
2"	6	PI.060.F7-	76	32	18	160	3	250	5
3"	6	PI.089.F7-	108	43	18	200	5	440	2
4"	6	PI.114.F7-	131	50	22	228	5	640	1

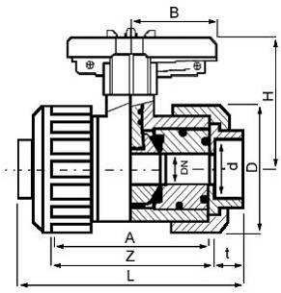
Drillings: **Full Face FBSP Flanges**

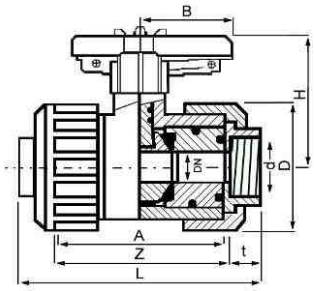
1 = BS 1560 / asa150
2 = BS 10 Table D
3 = BS 10 Table E
4 = BS 4504 Table 6
5 = BS 4504 Table 10

n.b.	k PCD	Holes	1	2	3	4	5	6
½"	60 – 67	4 x 14	✓	✓	✓		✓	✓
¾"	69 – 75	4 x 14	✓	✓	✓	✓	✓	✓
1"	79 – 85	4 x 14	✓	✓	✓		✓	✓
1½"	98 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
2"	110 – 125	4 x 18	✓	✓	✓	✓	✓	✓
3"	145 – 160 / 160	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
4"	170 – 191 / 177 –	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓

All dimensions in mm

2-Way Ball Valve – Double Union Manual Operation

FUSION SOCKETS	n.b.	DN	PN bar	EPDM	FPM	L	Weight (g)
	½"	15	10	PI.021.B1-	PI.021.B2-	100	160
	¾"	20	10	PI.026.B1-	PI.026.B2-	113	230
	1"	25	10	PI.033.B1-	PI.033.B2-	124	280
	1¼"	32	10	PI.042.B1-	PI.042.B2-	140	470
	1½"	40	10	PI.048.B1-	PI.048.B2-	164	740
	2"	50	10	PI.060.B1-	PI.060.B2-	192	1100
	3"	80	6	PI.089.B1-	PI.089.B2-	286	3870
	4"	80	6	PI.114.B1-	PI.114.B2-	295	3870

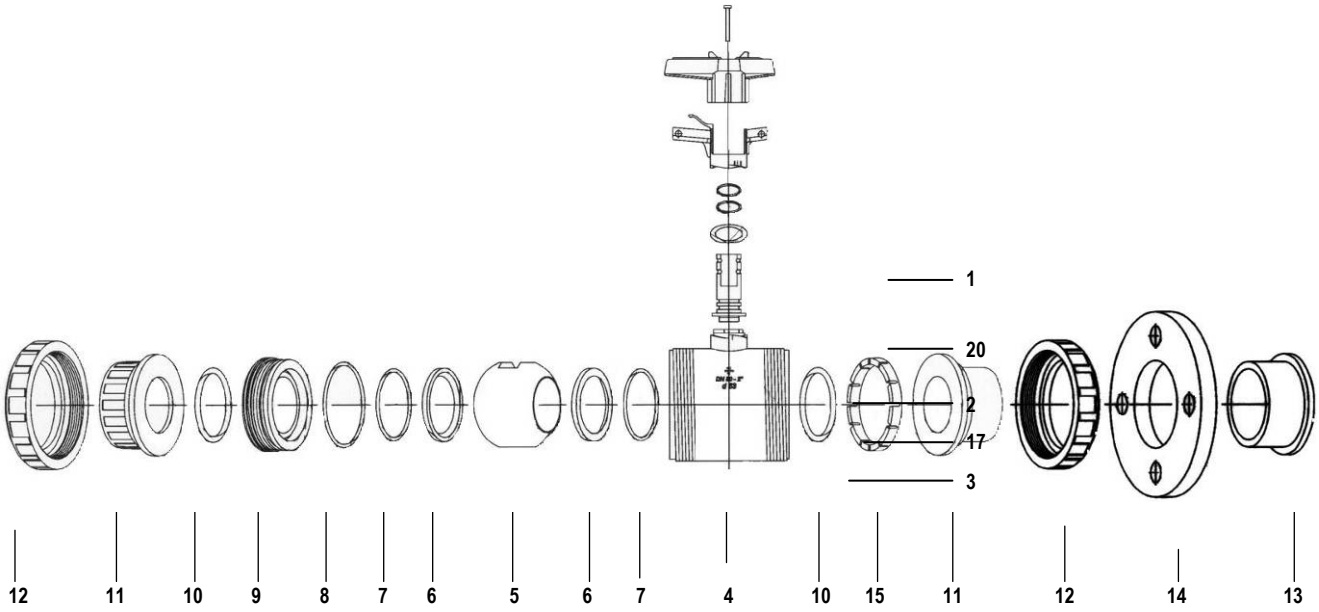
THREADED SOCKETS FBSP	n.b.	DN	PN bar	EPDM	FPM	L	Weight (g)
	½"	15	10	PI.021.B17	PI.021.B27	100	160
	¾"	20	10	PI.026.B17	PI.026.B27	113	230
	1"	25	10	PI.033.B17	PI.033.B27	124	280
	1¼"	32	10	PI.042.B17	PI.042.B27	140	470
	1½"	40	10	PI.048.B17	PI.048.B27	164	740
	2"	50	10	PI.060.B17	PI.060.B27	192	1100
	3"	80	6	PI.089.B17	PI.089.B27	286	3870
	4"	80	6	PI.114.B17	PI.114.B27	295	3870

Dimensions Common to all Ball Valves	n.b.	A	Z	t	D	H	B
	½"	62	68	16	53	72	40
	¾"	69	79	17	62	77	52
	1"	73	84	20	70	81	52
	1¼"	83	96	22	84	99	64
	1½"	94	114	25	100	107	73
	2"	108	134	29	121	116	85
	3"	160	208	39	187	160	132
	4"	160	207	44	187	160	132

All dimensions in mm

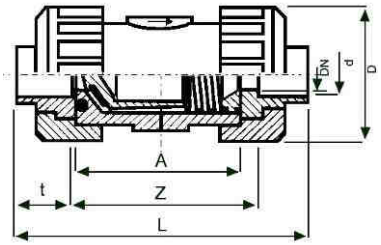
2-Way Ball Valve - Double Union Manual Operation (Continued….)

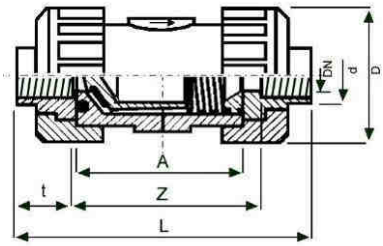
• Full Bore (½" to 3")	Suitable for pressure pipelines and drainage of hazardous fluids.
• Polypropylene Body	Resistant to corrosive fluids at temperatures from 0°C to 80°C.
• PP Nuts Reinforced with Glass	Long working life.
• True Union Design	Enables installation or servicing without disturbing pipeline.
• Double Sided Ball Blocking	Safety Design. Downstream piping may be disconnected under full line pressure without leakage.
• Seats	PTFE backed up with O-rings to ensure leak free shut off and long working life.
• O-rings	EPDM resistant to corrosive chemicals. FPM available for more hostile applications.
• Double Shaft Seals	Gives maintenance free working and eliminates leakage.
• Range	Sizes ½" → 2" pressure rated 10 bar. Sizes 3" and 4" pressure rated to 6 bar.
• Choice of End Connectors	Fusion sockets, fusion spigots, and threaded sockets. Flanged ends to customer specification.
• Valve Support Brackets	Available for all sizes.
• Spare Parts	Available for all sizes
• Clear Polythene Packaging	For ease of identification and protection in transit and storage.
• Actuators	Pneumatic or electric to customer specification.
• **Quality Control**	**Certification Din En19. Each Valve Is Tested During Manufacture To Din 3442 Ti Standard.**



No.	Description	No.	Description	No.	Description
1.	Handle	8.	O-ring	15.	Retaining Ring
2.	O-ring	9.	Thrust Collar	17.	O-ring
3.	Shaft	10.	O-ring	20.	Spring Loaded Locking Sleeve
4.	Body	11.	Connection	21.	Spigot
5.	Ball	12.	Union Nut	22.	Screw and Screw Cover
6.	Ball Seating Joint	13.	Flange Adaptor		
7.	O-ring	14.	Flange		

Non-Return Valve: Cone Type with Spring

FUSION SOCKETS	n.b.	DN	PN bar	EPDM	FPM	L	Weight (g)
	½"	15	10	PI.021.C1-	PI.021.C2-	100	120
	¾"	20	10	PI.026.C1-	PI.026.C2-	113	180
	1"	25	10	PI.033.C1-	PI.033.C2-	124	230
	1¼"	32	10	PI.042.C1-	PI.042.C2-	140	370
	1½"	40	10	PI.048.C1-	PI.048.C2-	164	580
	2"	50	10	PI.060.C1-	PI.060.C2-	192	820
	3"	80	6	PI.089.C1-	PI.089.C2-	286	3280
	4"	80	6	PI.114.C1-	PI.114.C2-	315	3280

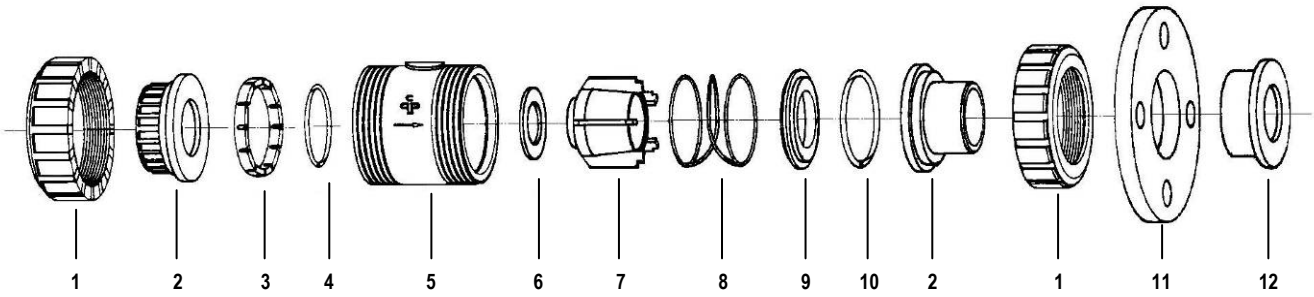
THREADED SOCKETS FBSP	n.b.	DN	PN bar	EPDM	FPM	L	Weight (g)
	½"	15	10	PI.021.C17	PI.021.C27	100	120
	¾"	20	10	PI.026.C17	PI.026.C27	113	180
	1"	25	10	PI.033.C17	PI.033.C27	124	230
	1¼"	32	10	PI.042.C17	PI.042.C27	140	370
	1½"	40	10	PI.048.C17	PI.048.C27	164	580
	2"	50	10	PI.060.C17	PI.060.C27	192	820
	3"	80	6	PI.089.C17	PI.089.C27	286	3280
	4"	80	6	PI.114.C17	PI.114.C27	315	3280

Dimensions Common to all Non Return Valves	n.b.	A	Z	t	D	B
	½"	62	68	16	53	40
	¾"	69	79	17	62	52
	1"	73	84	20	70	52
	1¼"	83	96	22	84	64
	1½"	94	114	25	100	73
	2"	108	134	29	121	85
	3"	160	208	39	187	132
	4"	160	207	44	187	132

All dimensions in mm

Non-Return Valve – Double Union - Cone Type with Spring (Continued….)

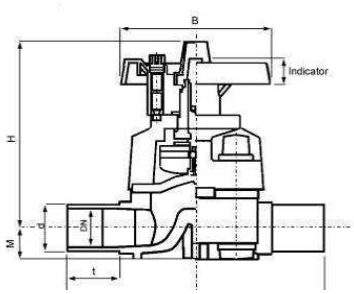
- Non-Return — One way operation. Spring to control opening and closing. Suitable for pumps, compressors and fluids in vertical and horizontal applications. Not suitable for slurries or fluids containing solids.
- Full Sectional Area of Flow — Non restrictive area is equal to the full nominal bore. Low pressure loss and suitable for high flow rates
- Polypropylene Body and Cone PP Nuts, Glass Reinforced — Resistant to corrosive fluids at temperatures from 0°C to 80°C. Long working life.
- True Union Design — Enables installation or servicing without disturbing pipeline.
- Spring Loaded — Can be used in horizontal and vertical applications. Spring coated with PTFE.
- O-rings and Seal — EPDM resistant to corrosive chemicals. FPM available for more hostile applications.
- Range — Sizes ½" → 2" pressure rated 10 bar.
  Sizes 3" and 4" pressure rated to 6 bar.
- Choice of End Connectors — Fusion sockets, fusion spigots, and threaded sockets. Flanged ends to customer specification.
- Spare Parts — Available for all sizes
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- **Quality Control** — **Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.**

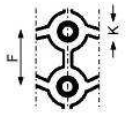


No.	Description		Material	No.	Description	Material
1.	Union Nut		PP	6.	Gasket	EPDM/FPM
2.	Fusion Socket	Metric/Inch	PP	7.	Hollow Cone	PP
	Threaded Socket	Inch	PP	8.	Spring	SS/PTFE
	Fusion Spigot	Metric	PP	9.	Thrust Collar	PP
3.	Retaining Ring		PP	10.	O-ring	EPDM/FPM
4.	O-ring		EPDM/FPM	11.	Backing Ring	As required
5.	Body		PP	12.	Flange Adapter	PP

Diaphragm Valve (Manual Operation)

FUSION SPIGOTS (for socket fusion only)	d	DN	PN bar	Kv100 l/m Δ = 1 bar	EPDM DIAPHRAGM	PTFE / FPM DIAPHRAGM	Weight (g)
	20	15	10	72	PM.020.D12	PM.020.D32	160
	25	20	10	93	PM.025.D12	PM.025.D32	230
	32	25	10	221	PM.032.D12	PM.032.D32	280
	40	32	10	450	PM.040.D12	PM.040.D32	470
	50	40	10	500	PM.050.D12	PM.050.D32	740
	63	50	10	875	PM.063.D12	PM.063.D32	1100
	75	65	10		PM.075.D12	PM.075.D32	2280
	90	80	10		PM.090.D12	PM.090.D32	3870
	110	80	10		PM.110.D12	PM.110.D32	3870





Mounting hole as seen from underneath valve

d	M	H	B	F	Lift	K	L	t
20	17	100	86	25	9	M6	124	29
25	17	100	86	25	9	M6	144	36
32	20	107	86	25	11	M6	154	36
40	32	144	136	44	22	M8	174	39
50	32	144	136	44	22	M8	194	46
63	39	170	136	44	28	M8	224	46
75	25	260	234		35		284	37
90	25	260	234		35		300	37
110	25	330	234		45		340	50

Please contact our sales office for Fusion Spigot valves suitable for Butt Welding

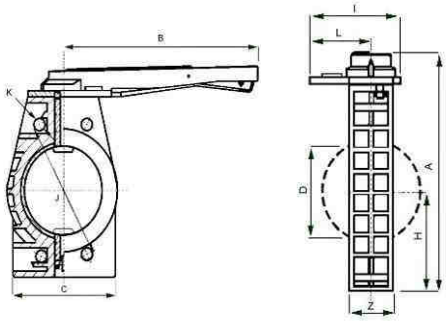
All dimensions in mm

- Polypropylene Body — Suitable for corrosive fluids and slurries to 15% concentration in hygienic pharmaceutical and bioprocessing applications.
- Temperature Range — Temperature range 0°C to 80°C.
- EPDM Diaphragm — Expected life 100,000 cycles. EPDM/PTFE coated available for more hostile applications.
- Safety Design / High Integrity Shut-off — Locatable handwheel positioning, easy manual operation, open/shut indicator.
- Range — Sizes 20 → 90mm pressure rated 10 bar.
- No Seals or Glands — Maintenance free (diaphragm easily replaced).
- Choice of End Connectors — Fusion spigots (flanged ends to customer specification).
- Spare Parts — Available for all sizes
- Support Bracket — For ease of installation.
- Actuator — Pneumatic to customer specification.
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- Quality Control — Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.

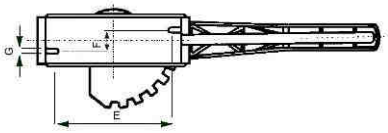
Butterfly Valve (Manual Operation)

FLANGED	d	DN	PN bar	Kv100 1/m Δ= 1bar	EPDM	FPM	Weight (g)
	90	80	10	3000	PM.090.BF1	PM.090.BF2	1300
	110	100	10	6500	PM.110.BF1	PM.110.BF2	1620
	140	125	10	11500	PM.140.BF1	PM.140.BF2	2300
	160	150	6	16600	PM.160.BF1	PM.160.BF2	3580
	225	200	6	39600	PM.225.BF1	PM.225.BF2	5040

d	A	B	C	D	E	F	G
90	258	270	130	74	90	10	9
110	287	270	154	90	88	10	11
140	321	270	187	116	130	10	11
160	349	380	215	133	164	16	11
225	421	380	272	203	164	22	11



d	H	I	J	K	L	Z
90	105	113	153-160	19	78	49
110	119	113	180-191	19	78	56
140	129	113	210-216	22	78	64
160	148	141	240	22	94	70
225	178	141	295-298	22	94	71



90 – 160mm suitable for BS4504 Table 10 & 16, and ASA150
225mm suitable for BS4504 Table 10 and ASA150

160 – 225mm require Flanges to be internally chamfered

All dimensions in mm

Adaptor flanges may be required to allow clearance of butterfly valve –
Please consult technical department for further information

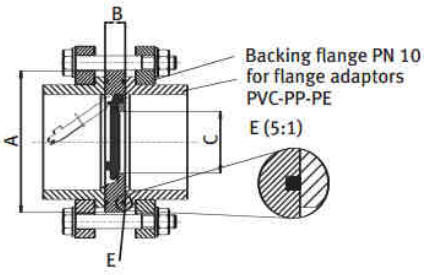
- Polypropylene Body — Resistant to impact damage and corrosive fluids at temperatures from 0°C to 80°C. Long working life.
- Double lip seal — EPDM. High integrity sealing. Resistant to abrasion and corrosive chemicals Resists jamming, prevents leakage. FPM available for more hostile applications.
- Encased stainless steel shaft — Secure – cannot blow out. Protected from contact with corrosive fluids.
- Locking handle — "Safety" On/Off control with 15° graduations.
- Range — Sizes 90mm → 140mm pressure rated 10 bar. 160/225mm pressure rated 6 bar.
- Actuators — Electric or pneumatic to customer specification.
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- Quality Control — Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.

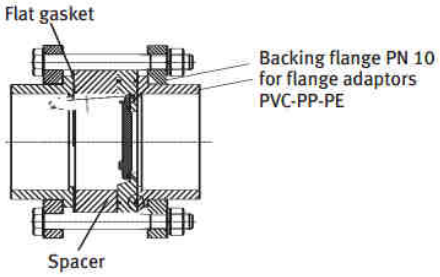
Wafer Check Valve (S4)

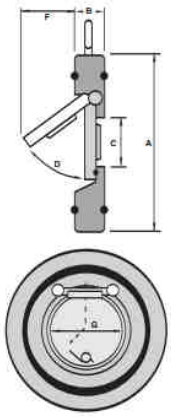
d	DN	PN bar	Kv10 1/m Δ= 1bar	EPDM	FPM	Weight lb (inc spacer)
2	50	10	950	PI.060.BC1	PI.060.BC2	0.9
2 ½	65	10	1255	PI.075.BC1	PI.075.BC2	2.1
3	80	10	1650	PI.89.BC1	PI.089.BC2	1.6
4	100	10	3190	PI.114.BC1	PI.114.BC2	3.1
6	150	10	9500	PI.168.BC1	PI.168.BC2	4.7
8	200	10	14100	POA	POA	-
10	250	10	26900	POA	POA	-
12	300	10	32000	POA	POA	-
14	350	3	50000	POA	POA	-
16	400	3	60500	POA	POA	-
20	500	2	80500	POA	POA	-

All dimensions in mm

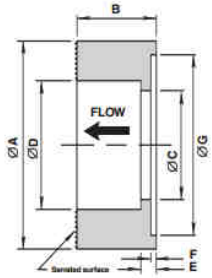
Adaptor flanges may be required to allow clearance of wafer check valve – Please consult technical department for further information







SPACER



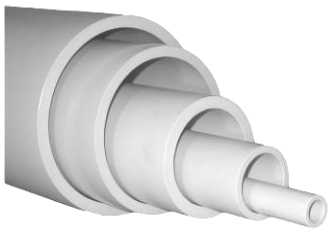
pipe size	inch	2	2 1/2	3	4	6	8	10	12	14	16	18	20
pipe size DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
A	mm	109	123	137	164	220	275	330	380	440	491	541	596
A	in	4.3	4.85	5.39	6.45	8.66	10.82	12.99	14.96	17.32	19.33	21.3	23.46
B	mm	20	20	20	22	26	35	40	45	49	65	68	78
B	in	.787	.787	.787	.866	1.02	1.377	1.57	1.77	1.93	2.56	2.67	3
C	mm	32	40	52	70	112	150	190	216	266	310	350	400
C	in	1.26	1.57	2.04	2.76	4.4	5.9	7.48	8.62	10.47	12.2	13.78	15.75
D° opening angle	deg	68	73	75	73	72	77	73	74	70	70	70	70
E	mm	46	58	60	72	76	105	140	195	N/A	N/A	N/A	N/A
E	in	1.81	2.28	2.36	2.83	2.99	4.13	5.5	7.67	N/A	N/A	N/A	N/A
F (with spring)	in	1.8	2.0	2.9	3.6	5.8	7.5	9.0	10.2	9.64	11.22	13	15.15
G (disc diameter)	mm	45	60	72	90	132	176	222	260	300	340	390	440
G (disc diameter)	in	1.77	2.36	2.83	3.54	5.19	6.93	8.74	10.23	11.81	13.38	15.35	17.32
Pressure PN	bar	10	10	10	10	10	10	10	10	3	3	2	2
Pressure rating	PSI	145	145	145	145	145	145	145	145	43.5	43.5	27	27

PVDF

PIPE 5m Lengths

10 Bar @ 20° C	OD	PN bar	CODE	Min. Wall	Weight (Kg/m)	Pack Qty (L)
	63	10	PV.063.P10*	2.0	0.750	1
	75	10	PV.075.P10*	2.3	1.031	1
	90	10	PV.090.P10*	2.8	1.481	1
	110	10	PV.110.P10*	3.4	2.196	1

16 Bar @ 20° C	OD	PN bar	CODE	Min. Wall	Weight (Kg/m)	Pack Qty (L)
	16	16	PV.016.P16	1.5	0.136	2
	20	16	PV.020.P16	1.9	0.210	2
	25	16	PV.025.P16	1.9	0.268	2
	32	16	PV.032.P16	2.4	0.434	2
	40	16	PV.040.P16	2.4	0.553	1
	50	16	PV.050.P16	3.0	0.848	1
	63	16	PV.063.P16	3.0	1.084	1
	75	16	PV.075.P16	3.6	1.548	1
	90	16	PV.090.P16	4.3	2.216	1
	110	16	PV.110.P16	5.3	3.319	1



50m Coils: 16 Bar @ 20° C	OD	PN bar	CODE	Min. Wall	Weight (Kg/ea)	Pack Qty (ea)
	16	16	PV.016.C16*	1.5	6.800	1
	20	16	PV.020.C16*	1.9	10.500	1
	25	16	PV.025.C16*	1.9	13.400	1
	32	16	PV.032.C16*	2.4	24.200	1

All dimensions in mm

Notes:

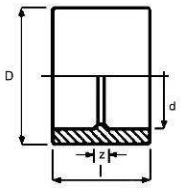
- * = minimum order quantities. See office for details
- Other diameters and wall thicknesses available to order
- PN10 rated is not recommended for socket fusion
- Sizes: 20/25/32mm: Pressure rated 25 bar @ 20°C 40/50mm: Pressure rated 20 bar @ 20°C

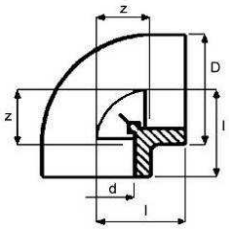
OD and Wall Tolerances:: Chemflo-PVDF metric pipes are manufactured to dimensional standards and tolerances detailed in BS ISO 10931-2 : 1997. Eg. 63mm 16 bar: Mean OD 63.0 → 63.4mm, wall 3.0 → 3.5mm.

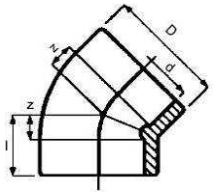
If PVDF pipes are required for purposes requiring more precise dimensions please contact our Sales Office.

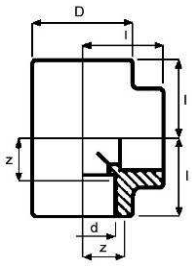
PVDF

Socket Welded Fittings

COUPLER	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20	16	PV.020.C--	27	36	8	19	1
	25	16	PV.025.C--	34	41	9	35	1
	32	16	PV.032.C--	41	45	9	46	1
	40	16	PV.040.C--	51	49	7	74	1
	50	16	PV.050.C--	61	53	7	97	1
	63	16	PV.063.C--	76	61	7	170	1
	75	16	PV.075.C--	90	68	7	330	1
	90	16	PV.090.C--	109	80	11	456	1
	110	16	PV.110.C--	132	94	14	776	1

90° ELBOW	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20	16	PV.020.E--	27	29	14	31	1
	25	16	PV.025.E--	34	34	17	54	1
	32	16	PV.032.E--	41	41	22	85	1
	40	16	PV.040.E--	51	52	31	142	1
	50	16	PV.050.E--	61	52	29	178	1
	63	16	PV.063.E--	76	63	36	329	1
	75	16	PV.075.E--	90	73	42	620	1
	90	16	PV.090.E--	109	86	51	902	1
	110	16	PV.110.E--	132	105	64	1630	1

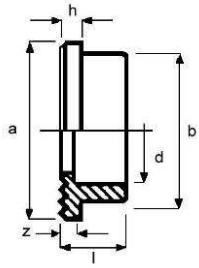
45° ELBOW	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20	16	PV.020.A--	27	22	8	23	1
	25	16	PV.025.A--	34	26	10	39	1
	32	16	PV.032.A--	41	30	12	54	1
	40	16	PV.040.A--	51	33	12	97	1
	50	16	PV.050.A--	61	38	15	121	1
	63	16	PV.063.A--	76	44	17	253	1
	75	16	PV.075.A--	90	50	22	454	1
	90	16	PV.090.A--	109	61	26	679	1
	110	16	PV.110.A--	132	71	30	1193	1

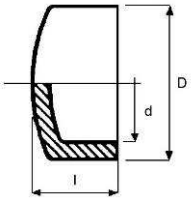
TEE	d	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20	16	PV.020.T--	27	29	14	43	1
	25	16	PV.025.T--	34	34	17	66	1
	32	16	PV.032.T--	41	41	22	103	1
	40	16	PV.040.T--	51	45	25	160	1
	50	16	PV.050.T--	61	52	29	228	1
	63	16	PV.063.T--	76	63	36	426	1
	75	16	PV.075.T--	90	73	42	795	1
	90	16	PV.090.T--	109	86	51	1145	1
	110	16	PV.110.T--	132	105	64	2057	1

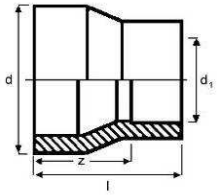
All dimensions in mm

PVDF

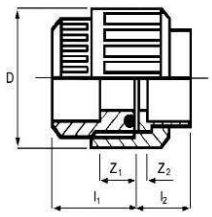
Socket Welded Fittings

STUB FLANGE	d	PN bar	CODE	a	b	h	l	z	Weight (g)	Pack Qty
 	20	16	PV.020.S--	34	27	6	19	5	12	1
	25	16	PV.025.S--	41	34	7	22	6	19	1
	32	16	PV.032.S--	50	41	7	24	6	31	1
	40	16	PV.040.S--	61	51	8	26	6	46	1
	50	16	PV.050.S--	73	61	8	28	5	66	1
	63	16	PV.063.S--	90	76	9	32	5	108	1
	75	16	PV.075.S--	106	90	10	36	5	175	1
	90	16	PV.090.S--	125	109	11	43	8	262	1
	110	16	PV.110.S--	150	132	12	50	9	412	1

END CAP	d	PN bar	CODE	D	l	Weight (g)	Pack Qty
 	20	16	PV.020.EC-	27	26	15	1
	25	16	PV.025.EC-	34	30	31	1
	32	16	PV.032.EC-	41	33	57	1
	40	16	PV.040.EC-	51	37	68	1
	50	16	PV.050.EC-	61	40	108	1
	63	16	PV.063.EC-	76	45	150	1
	75	16	PV.075.EC-	90	54	250	1
	90	16	PV.090.EC-	109	61	407	1
	110	16	PV.110.EC-	132	74	640	1

REDUCING BUSH Spigot x Socket	d x d_1	PN bar	CODE	l	z	Weight (g)	Pack Qty
 	25 x 20	16	PV.025.R01	37	23	9	1
	32 x 20	16	PV.032.R02	42	28	12	1
	32 x 25	16	PV.032.R01	42	26	14	1
	40 x 25	16	PV.040.R02	48	32	20	1
	40 x 32	16	PV.040.R01	46	28	22	1
	50 x 32	16	PV.050.R02	56	32	32	1
	50 x 40	16	PV.050.R01	50	30	32	1
	63 x 32	16	PV.063.R03	63	45	54	1
	63 x 50	16	PV.063.R01	56	33	54	1
	75 x 63	16	PV.075.R01	61	33	85	1
	90 x 63	16	PV.090.R02	80	53	140	1
	90 x 75	16	PV.090.R01	70	36	140	1
	110x6	16	PV.110.R03	79	50	200	1
	110x9	16	PV.110.R01	83	48	230	1

d = Spigot d_1 = Socket

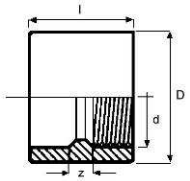
UNION FPM Seal	d x d_1	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	20	16	PV.020.U--	46	36	19	22	5	76	1
	25	16	PV.025.U--	53	37	22	21	6	100	1
	32	16	PV.032.U--	62	38	24	20	6	140	1
	40	16	PV.040.U--	74	41	26	21	6	215	1
	50	16	PV.050.U--	107	46	28	23	5	308	1
	63	16	PV.063.U--	106	51	32	24	5	510	1

All dimensions in mm

PVDF

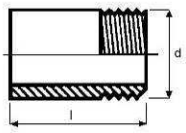
Adapter Fittings

SOCKET ADAPTOR FBSP	d x d_1	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
	20 x ½"	6	PV.020.C07	27	36	7	20	1
	25 x ¾"	6	PV.025.C07	34	41	9	31	1
	32 x 1"	6	PV.032.C07	41	45	9	43	1
	40 x 1¼"	6	PV.040.C07	52	49	8	77	1
	50 x 1½"	6	PV.050.C07	61	53	6	104	1
	63 x 2"	6	PV.063.C07	77	61	6	185	1



Fusion Socket x FBSP Parallel Thread

NIPPLE Plain x MBSPTr Thread	d x d_1	PN bar	CODE	l	Weight (g)	Pack Qty
	20 x ½"	6	PV.020.NP-	55	16	1
	25 x ¾"	6	PV.025.NP-	58	20	1
	32 x 1"	6	PV.032.NP-	65	33	1
	40 x 1¼"	6	PV.040.NP-	68	56	1
	50 x 1½"	6	PV.050.NP-	68	85	1
	63 x 2"	6	PV.063.NP-	76	147	1

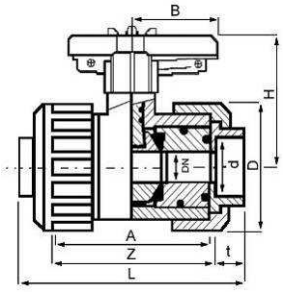


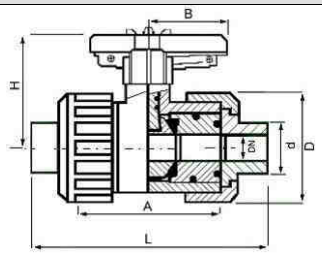
Fusion Spigot x MBSP Tapered Thread

(Parallel thread available to order)

All dimensions in mm

2-Way Ball Valve - Double Union Manual Operation

FUSION SOCKETS FPM Seals	d	DN	PN bar	CODE	L	Weight (g)
	20	15	16	PV.020.B2-	99	250
	25	20	16	PV.025.B2-	113	380
	32	25	16	PV.032.B2-	121	490
	40	32	16	PV.040.B2-	139	810
	50	40	16	PV.050.B2-	164	1220
	63	50	16	PV.063.B2-	192	1910
	75	65	16	PV.075.B2-	215	3820
	90	80	10	PV.090.B2-	287	6430
	110	80	6	PV.110.B2-	255	6430

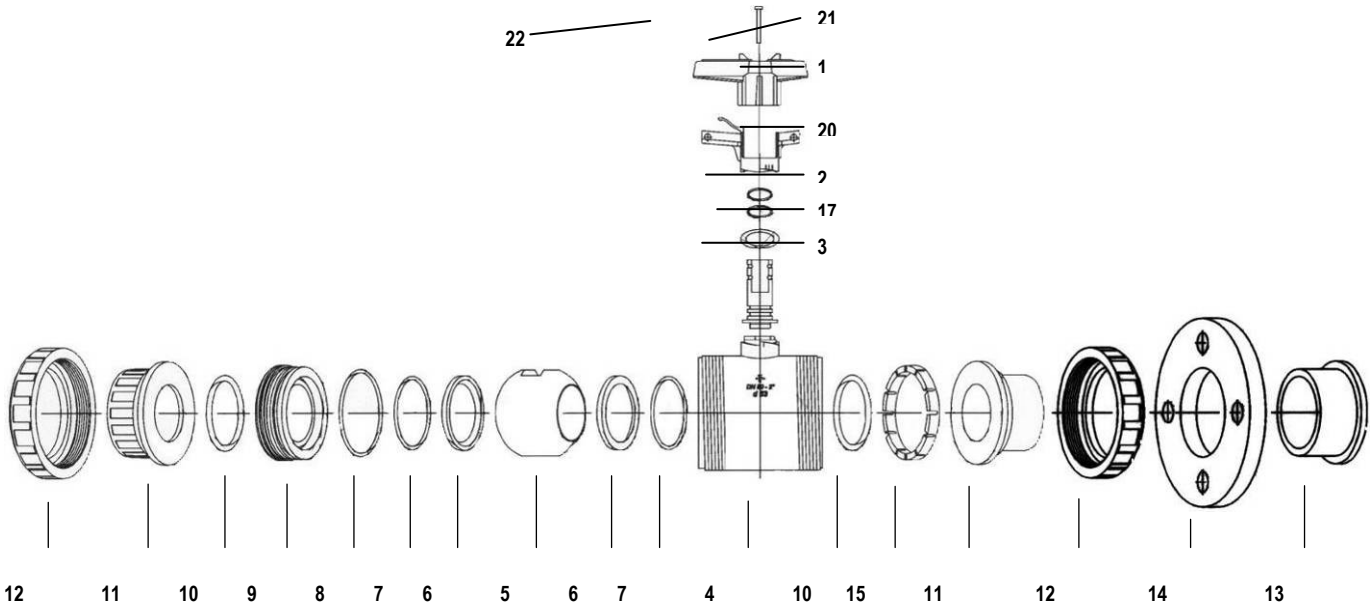
FUSION SPIGOTS (for socket fusion only) FPM Seals	d	DN	PN bar	CODE	L	Weight (g)
	20	15	16	PV.020.B22	124	250
	25	20	16	PV.025.B22	144	380
	32	25	16	PV.032.B22	154	490
	40	32	16	PV.040.B22	174	810
	50	40	16	PV.050.B22	194	1220
	63	50	16	PV.063.B22	224	1910
	75	65	16	PV.075.B22	284	3820
	90	80	10	PV.090.B22	300	6430
Please contact our sales office for Fusion Spigot valves suitable for Butt Welding	110	80	6	PV.110.B22	340	6430

Dimensions Common to all Ball Valves	d	A	Z	t	D	H	B
	20	62	67	16	52	71	40
	25	69	79	17	62	77	51
	32	73	83	19	69	80	51
	40	83	95	22	84	98	64
	50	94	114	25	100	106	73
	63	108	134	29	120	115	85
	75	133	147	34	155	142	110
	90	160	211	38	187	160	132
Flanged ends available to customer specification	110	160	167	44	187	160	132

All dimensions in mm

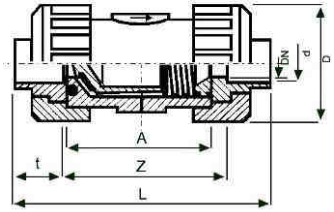
2-Way Ball Valve - Double Union Manual Operation (Continued….)

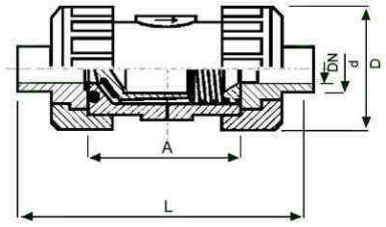
- PVDF body, ball, nuts, ends and shaft — Suitable for most corrosive fluids in a temperature range 0°C to +140°C.
- True union design — Enables installation or servicing without disturbing the pipeline.
- Range — Sizes 16 → 75mm pressure rated to 16 bar, 90 → 110mm to 10 bar, 110mm to 6 bar.
- Choice of end connectors — Fusion sockets and fusion spigots. Flanged ends to customer specification.
- Double sided Ball blocking — Safety design. Downstream piping may be disconnected under full line pressure w/o leakage.
- Lockable handles and FPM O-rings — Lockable handle for added safety. FPM O-rings resistant to most aggressive chemicals.
- PTFE seats — Backed up with O-rings ensures leak free shut off and long working life.
- Double shaft seals — Give maintenance free working and eliminates leakage.
- Spare parts — Available for all sizes.
- Clear polythene packaging — For ease of identification and protection in transit and storage.
- Pneumatic or electric actuator — Available to customer specification.
- Support brackets available
- **Quality Control** — **Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.**



No.	Description	Mat'l	No.	Description	Mat'l	No.	Description	Mat'l
1.	Handle	PP	8.	O-ring	FPM	15.	Retaining Ring	
2.	O-ring	PP	9.	Thrust Collar	PVDF	17.	O-ring	FPM
3.	Shaft	PVDF	10.	O-ring	FPM	20.	Spring Loaded Locking Sleeve	PP
4.	Body	PVDF	11.	Connection	PVDF	21.	Spigot	PP
5.	Ball	PVDF	12.	Union Nut	PVDF	22.	Screw and Screw Cover	
6.	Ball Seating Joint	PTFE	13.	Flange Adaptor	PVDF			
7.	O-ring	FPM	14.	Flange				

Non-Return Valve Cone Type With Spring

FUSION SOCKETS FPM Seals	d	DN	PN bar	CODE	L	Weight (g)
	20	15	16	PV.020.C2-	100	200
	25	20	16	PV.025.C2-	113	310
	32	25	16	PV.032.C2-	124	390
	40	32	16	PV.040.C2-	140	640
	50	40	16	PV.050.C2-	165	1000
	63	50	16	PV.063.C2-	192	1480
	75	65	16	PV.075.C2-	232	2970
	90	80	10	PV.090.C2-	286	5670
	110	80	6	PV.110.C2-	315	5670

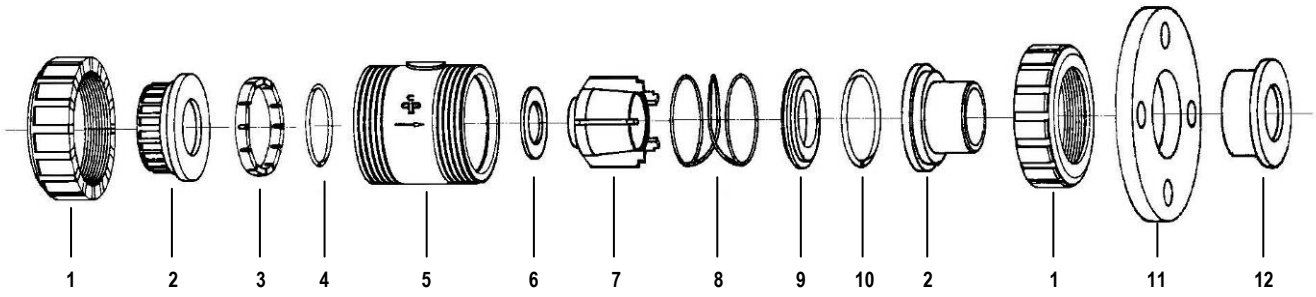
FUSION SPIGOTS (for socket fusion only) FPM Seals	d	DN	PN bar	CODE	L	Weight (g)
	20	15	16	PV.020.C22	124	200
	25	20	16	PV.025.C22	144	310
	32	25	16	PV.032.C22	154	390
	40	32	16	PV.040.C22	174	640
	50	40	16	PV.050.C22	194	1000
	63	50	16	PV.063.C22	224	1480
	75	65	16	PV.075.C22	284	2970
	90	80	10	PV.090.C22	300	5670
Please contact our sales office for Fusion Spigot valves suitable for Butt Welding	110	80	6	PV.110.C22	340	5670

Dimensions Common to all Non Return Valves	d	A	Z	t	D
	20	62	68	16	53
	25	69	79	17	62
	32	73	84	20	70
	40	83	96	22	84
	50	94	114	25	100
	63	108	134	29	120
	75	133	162	35	155
	90	160	208	39	187
Flanged ends available to customer specification	110	160	227	44	187

All dimensions in mm

Non-Return Valve - Double Union Cone Type With Spring (Continued….)

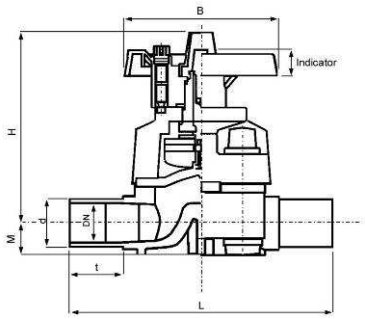
• PVDF body, cone, nuts, and ends	Suitable for most corrosive fluids in a temperature range 0°C to +140°C.
• True union design	Enables installation or servicing without disturbing the pipeline.
• Range	Sizes 16 → 75mm pressure rated to 16 bar, 90 → 110mm to 10 bar, 110mm to 6 bar.
• Choice of end connectors	Fusion sockets and fusion spigots. Flanged ends to customer specification.
• Full sectional area of flow	Non restrictive area is equal to the full nominal bore in sizes 16mm → 90mm.
• O-rings and cone seal FPM	Resistant to most aggressive chemicals.
• Spring loaded	Can be used in horizontal and vertical applications. Spring coated with PTFE.
• Spare parts	Available for all sizes.
• Clear polythene packaging	For ease of identification and protection in transit and storage.
• Support brackets available	
• **QUALITY CONTROL**	**CERTIFICATION DIN EN19. EACH VALVE IS TESTED DURING MANUFACTURE TO ISO/FDIS 9393-2 Standard.**

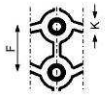


No.	Description		Material	No.	Description	Material
1.	Union Nut		PVDF	7.	Hollow Cone	PVDF
2.	Fusion Socket	Metric	PVDF	8.	Spring	SS/PTFE
	Fusion Spigot	Metric	PVDF	9.	Thrust Collar	PVDF
3.	Retaining Ring		PVDF	10.	O-ring	FPM
4.	O-ring		FPM	11.	Backing Ring	As required
5.	Body		PVDF	12.	Flange Adaptor	PVDF
6.	Gasket		FPM			

Diaphragm Valve (Manual Operation)

FUSION SPIGOTS (for socket fusion only) PTFE / EPDM Diaphragm	d	DN	PN bar	Kv100 l/m Δ = 1bar	CODE	Weight (g)
	20	15	10	72	PV.020.D32	450
	25	20	10	93	PV.025.D32	470
	32	25	10	221	PV.032.D32	690
	40	32	10	450	PV.040.D32	1680
	50	40	10	500	PV.050.D32	1660
	63	50	10	875	PV.063.D32	2470
	75	65	10		PV.075.D32	
	90	80	10		PV.090.D32	





Mounting hole as seen from underneath valve

d	M	H	B	F	Lift	K	L	t
20	17	100	86	25	9	M6	124	29
25	17	100	86	25	9	M6	144	36
32	20	107	86	25	11	M6	154	36
40	32	144	136	44	22	M8	174	39
50	32	144	136	44	22	M8	194	46
63	39	170	136	44	28	M8	224	46
75	25	260	234		35		284	37
90	25	260	234		35		300	37

Please contact our sales office for Fusion Spigot valves suitable for Butt Welding

Flanged ends available to customer specification

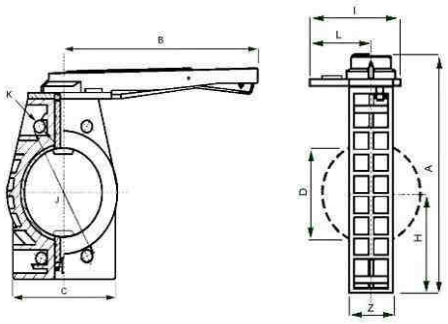
All dimensions in mm

• PVDF Body	Suitable for most corrosive fluids and slurries to 15% concentration in hygienic, pharmaceutical and bioprocessing applications in a temperature range 0°Cto 140°C.
• EPDM/PTFE coated diaphragm	Expected life 100,000 cycles.
• Safety design/high integrity shutoff	Lockable handwheel, easy manual operation, open / shut indicator.
• Range	Sizes 20 → 90mm pressure rated to 10 bar.
• No seals or glands	Maintenance free (diaphragm easily replaced).
• Spare parts	Available for all sizes.
• Clear polythene packaging	For ease of identification and protection in transit and storage.
• Choice of end connectors	Fusion spigots. Flanged and union ends to customer specification.
• Support bracket	For ease of installation.
• Pneumatic actuator	Available to customer specification.
• Quality control	Certification DIN EN19. Each valve is tested during manufacture to ISO/FDIS 9393-2 standard.

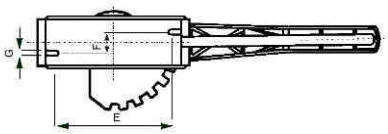
Butterfly Valve (Manual Operation)

FLANGED	d	DN	PN bar	Kv100 1/m Δ= 1bar	EPDM	FPM	Weight (g)
	90	80	10	3000	PM.090.BF1	PM.090.BF2	1300
	110	100	10	6500	PM.110.BF1	PM.110.BF2	1620
	140	125	10	11500	PM.140.BF1	PM.140.BF2	2300
	160	150	6	16600	PM.160.BF1	PM.160.BF2	3580
	225	200	6	39600	PM.225.BF1	PM.225.BF2	5040

d	A	B	C	D	E	F	G
90	258	270	130	74	90	10	9
110	287	270	154	90	88	10	11
140	321	270	187	116	130	10	11
160	349	380	215	133	164	16	11
225	421	380	272	203	164	22	11



d	H	I	J	K	L	Z
90	105	113	153-160	19	78	49
110	119	113	180-191	19	78	56
140	129	113	210-216	22	78	64
160	148	141	240	22	94	70
225	178	141	295-298	22	94	71



90 – 160mm suitable for BS4504 Table 10 & 16, and ASA150
225mm suitable for BS4504 Table 10 and ASA150

160 – 225mm require Flanges to be internally chamfered

All dimensions in mm

**Adaptor flanges may be required to allow clearance of butterfly valve –
Please consult technical department for further information**

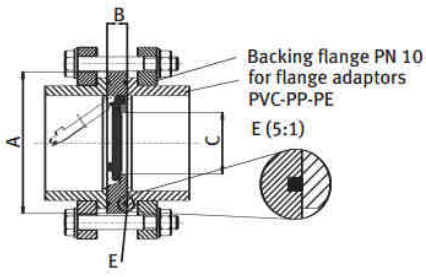
- Polypropylene Body — Resistant to impact damage and corrosive fluids at temperatures from 0°C to 80°C. Long working life.
- Double lip seal — EPDM. High integrity sealing. Resistant to abrasion and corrosive chemicals Resists jamming, prevents leakage. FPM available for more hostile applications.
- Encased stainless steel shaft — Secure – cannot blow out. Protected from contact with corrosive fluids.
- Locking handle — "Safety" On/Off control with 15° graduations.
- Range — Sizes 90mm → 140mm pressure rated 10 bar. 160/225mm pressure rated 6 bar.
- Actuators — Electric or pneumatic to customer specification.
- Clear Polythene Packaging — For ease of identification and protection in transit and storage.
- Quality Control — Certification DIN EN19. Each valve is tested during manufacture to DIN 3442 TI standard.

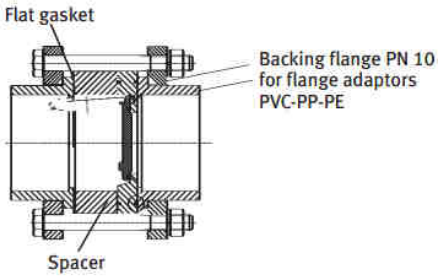
Wafer Check Valve (S4)

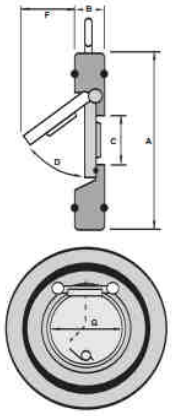
d	DN	PN bar	Kv10 1/m Δ= 1bar	EPDM	FPM	Weight lb (inc spacer)
2	50	10	950	PI.060.BC1	PI.060.BC2	0.9
2 ½	65	10	1255	PI.075.BC1	PI.075.BC2	2.1
3	80	10	1650	PI.89.BC1	PI.089.BC2	1.6
4	100	10	3190	PI.114.BC1	PI.114.BC2	3.1
6	150	10	9500	PI.168.BC1	PI.168.BC2	4.7
8	200	10	14100	POA	POA	-
10	250	10	26900	POA	POA	-
12	300	10	32000	POA	POA	-
14	350	3	50000	POA	POA	-
16	400	3	60500	POA	POA	-
20	500	2	80500	POA	POA	-

All dimensions in mm

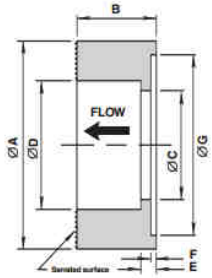
Adaptor flanges may be required to allow clearance of wafer check valve –
Please consult technical department for further information







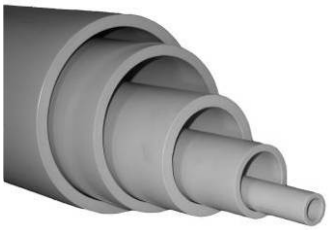
SPACER



pipe size	inch	2	2 1/2	3	4	6	8	10	12	14	16	18	20
pipe size DN	mm	50	65	80	100	150	200	250	300	350	400	450	500
A	mm	109	123	137	164	220	275	330	380	440	491	541	596
A	in	4.3	4.85	5.39	6.45	8.66	10.82	12.99	14.96	17.32	19.33	21.3	23.46
B	mm	20	20	20	22	26	35	40	45	49	65	68	78
B	in	.787	.787	.787	.866	1.02	1.377	1.57	1.77	1.93	2.56	2.67	3
C	mm	32	40	52	70	112	150	190	216	266	310	350	400
C	in	1.26	1.57	2.04	2.76	4.4	5.9	7.48	8.62	10.47	12.2	13.78	15.75
D° opening angle	deg	68	73	75	73	72	77	73	74	70	70	70	70
E	mm	46	58	60	72	76	105	140	195	N/A	N/A	N/A	N/A
E	in	1.81	2.28	2.36	2.83	2.99	4.13	5.5	7.67	N/A	N/A	N/A	N/A
F (with spring)	in	1.8	2.0	2.9	3.6	5.8	7.5	9.0	10.2	9.64	11.22	13	15.15
G (disc diameter)	mm	45	60	72	90	132	176	222	260	300	340	390	440
G (disc diameter)	in	1.77	2.36	2.83	3.54	5.19	6.93	8.74	10.23	11.81	13.38	15.35	17.32
Pressure PN	bar	10	10	10	10	10	10	10	10	3	3	2	2
Pressure rating	PSI	145	145	145	145	145	145	145	145	43.5	43.5	27	27

Natural Polypropylene PIPE 6m Lengths

NORMAL GAUGE	n.b.	Av. OD	Pressure Class	PN bar	CODE	Min. Wall	Weight (Kg/m)	Pack Qty (Lengths)
	1½"	48.3	C	9	PP.048.PNG	4.1	0.55	5
	2"	60.3	B	6	PP.060.PNG	3.5	0.61	3
	3"	88.9	B	6	PP.089.PNG	5.2	1.32	1
	4"	114.3	B	6	PP.114.PNG	6.6	2.16	1

HEAVY GAUGE	n.b.	Av. OD	Pressure Class	PN bar	CODE	Min. Wall	Weight (Kg/m)	Pack Qty (Lengths)
	½"	21.3	E	15	PP.021.PHG	2.9	0.16	10
	¾"	26.7	E	15	PP.026.PHG	3.6	0.25	10
	1"	33.5	D	12	PP.033.PHG	3.7	0.33	10
	1¼"	42.3	D	12	PP.042.PHG	4.6	0.53	5
	1½"	48.3	D	12	PP.048.PHG	5.3	0.69	5
	2"	60.3	D	12	PP.060.PHG	6.6	1.07	3
	3"	88.9	C	9	PP.089.PHG	7.5	1.85	1
	4"	114.3	C	9	PP.114.PHG	9.6	3.04	1

All dimensions in mm

Notes:

- Non standard sizes and lengths are available to customer specification
- Pipes are polythene wrapped. (Orders of less than pack quantity may be delivered unwrapped)
- PP-H pipes available on request – please consult our Sales Office

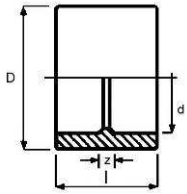
OD and Wall Tolerances:

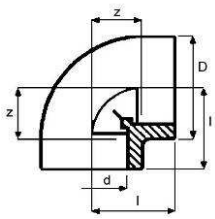
- Chemflo-PP imperial pipes are manufactured to dimensional standards and tolerances detailed in BS 4991:1974

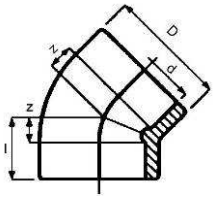
  Eg. 2" Normal Gauge: Pressure Class B, Mean OD 60.1 → 60.6mm, wall 3.5 → 3.9mm

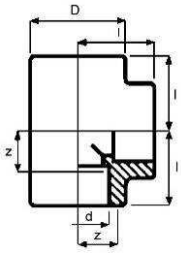
If you have an application requiring more precise dimensions please contact us at technical support at CPV.

Natural Polypropylene — Socket Welded Fittings

COUPLER	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.C--	27	38	4	10	5
	¾"	10	PP.026.C--	34	42	4	16	5
	1"	10	PP.033.C--	41	50	4	24	5
	1¼"	10	PP.042.C--	52	49	3	32	5
	1½"	10	PP.048.C--	61	53	3	56	5
	2"	10	PP.060.C--	77	61	3	100	5
	3"	10	PP.089.C--	110	81	5	235	2
	4"	10	PP.114.C--	134	96	6	340	1

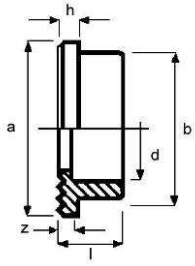
90° ELBOW	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.E--	27	29	12	14	5
	¾"	10	PP.026.E--	34	34	14	26	5
	1"	10	PP.033.E--	41	41	18	40	5
	1¼"	10	PP.042.E--	52	45	22	130	5
	1½"	10	PP.048.E--	61	52	27	102	5
	2"	10	PP.060.E--	77	63	34	190	5
	3"	10	PP.089.E--	110	86	48	465	2
	4"	10	PP.114.E--	134	105	60	800	1

45° ELBOW	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.A--	27	22	5	10	5
	¾"	10	PP.026.A--	34	26	6	18	5
	1"	10	PP.033.A--	41	30	7	26	5
	1¼"	10	PP.042.A--	52	33	10	44	5
	1½"	10	PP.048.A--	61	38	13	78	5
	2"	10	PP.060.A--	77	44	15	145	5
	3"	10	PP.089.A--	110	61	23	350	2
	4"	10	PP.114.A--	134	71	26	580	1

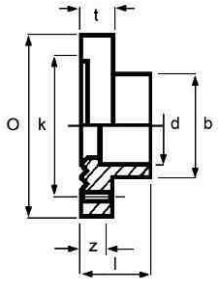
TEE	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.T--	27	29	12	18	5
	¾"	10	PP.026.T--	34	34	14	32	5
	1"	10	PP.033.T--	41	41	18	50	5
	1¼"	10	PP.042.T--	52	45	22	170	5
	1½"	10	PP.048.T--	61	52	27	130	5
	2"	10	PP.060.T--	77	63	34	250	5
	3"	10	PP.089.T--	110	86	48	590	2
	4"	10	PP.114.T--	134	105	60	970	1

All dimensions in mm

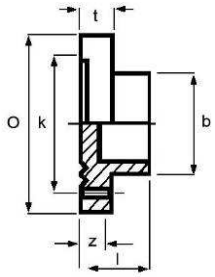
Natural Polypropylene — Socket Welded Fittings

STUB FLANGE	n.b.	PN bar	CODE	a	b	h	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.S--	34	27	6	19	2	6	5
	¾"	10	PP.026.S--	41	33	7	22	2	10	5
	1"	10	PP.033.S--	50	41	7	24	1	16	5
	1¼"	10	PP.042.S--	61	50	8	26	3	26	5
	1½"	10	PP.048.S--	73	61	8	28	3	36	5
	2"	10	PP.060.S--	90	76	9	32	3	58	5
	3"	10	PP.089.S--	125	108	11	43	5	135	2
	4"	10	PP.114.S--	150	131	12	50	5	200	1

- Serrated face

FULL FACE FLANGE	n.b.	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	½"	10	PP.021.F--	27	19	12	95	2	68	5
	¾"	10	PP.026.F--	33	22	12	105	2	81	5
	1"	10	PP.033.F--	41	24	12	115	1	103	5
	1¼"	10	PP.042.F--	50	26	12	136	3	109	5
	1½"	10	PP.048.F--	61	28	14	149	3	157	5
	2"	10	PP.060.F--	76	32	18	160	3	264	5
	3"	10	PP.089.F--	108	43	18	200	5	440	2
	4"	10	PP.114.F--	131	50	22	228	5	640	1

- Suitable backing rings should be used to obtain maximum working pressure

FULL FACE FLANGE	n.b.	PN bar	CODE	b	l	t	O	z	Weight (g)	Pack Qty
 	½"	10	PP.021.P--	27	19	12	95	5	10	5
	¾"	10	PP.026.P--	33	22	12	105	6	18	5
	1"	10	PP.033.P--	41	24	12	115	6	24	5
	1¼"	10	PP.042.P--	50	26	12	136	6	40	5
	1½"	10	PP.048.P--	61	28	14	149	5	50	5
	2"	10	PP.060.P--	76	32	18	160	5	88	5
	3"	10	PP.089.P--	108	43	18	200	8	235	2
	4"	10	PP.114.P--	131	50	22	228	9	400	1

- Suitable backing rings should be used to obtain maximum working pressure

DRILLINGS

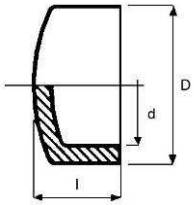
Common to Full Face Flanges and Blank Flanges:

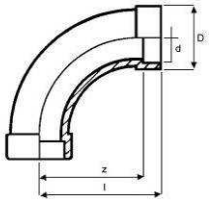
1 = BS 1560 / asa150
2 = BS 10 Table D
3 = BS 10 Table E
4 = BS 4504 Table 6
5 = BS 4504 Table 10
6 = BS 4504 Table 16

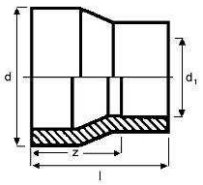
d	k PCD	Holes	1	2	3	4	5	6
20	60 – 67	4 x 14	✓	✓	✓		✓	✓
25	69 – 75	4 x 14	✓	✓	✓	✓	✓	✓
32	79 – 85	4 x 14	✓	✓	✓		✓	✓
40	87 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
50	98 – 100	4 x 14 / 4 x 18	✓	✓	✓	✓	✓	✓
63	110 – 125	4 x 18	✓	✓	✓	✓	✓	✓
90	145 – 160 / 160	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
110	170 – 191 / 177 –	4 x 18 / 8 x 18	✓	✓	✓	✓	✓	✓
160	242 – 255	8 x 22	✓	✓	✓		✓	✓

All dimensions in mm

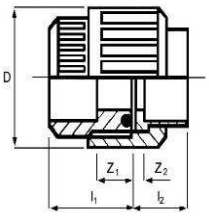
Natural Polypropylene — Socket Welded Fittings

END CAP	n.b.	PN bar	CODE	D	l	Weight (g)	Pack Qty
 	½"	10	PP.021.EC-	27	28	6	5
	¾"	10	PP.026.EC-	34	30	10	5
	1"	10	PP.033.EC-	41	34	16	5
	1¼"	10	PP.042.EC-	51	36	28	5
	1½"	10	PP.048.EC-	61	40	40	5
	2"	10	PP.060.EC-	77	46	84	5
	3"	10	PP.089.EC-	110	61	210	2
	4"	10	PP.114.EC-	134	75	305	1

90° BEND	n.b.	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	10	PP.021.B--	35	73	59	68	1
	¾"	10	PP.026.B--	38	80	44	52	1
	1"	10	PP.033.B--	45	85	68	70	1
	1¼"	10	PP.042.B--	51	101	81	93	1
	1½"	10	PP.048.B--	60	93	70	130	1
	2"	10	PP.060.B--	74	106	79	225	1

REDUCING BUSH Spigot x Socket	n.b.	PN bar	CODE	l	z	Weight (g)	Pack Qty
 	¾ x ½"	10	PP.026.R01	38	23	10	5
	1 x ½"	10	PP.033.R02	46	29	14	5
	1 x ¾"	10	PP.033.R01	46	26	16	5
	1¼ x 1"	10	PP.042.R01	48	26	20	5
	1½ x 1"	10	PP.048.R02	57	33	34	5
	1½ x 1¼"	10	PP.048.R01	51	28	54	5
	2 x 1"	10	PP.060.R03	57	35	54	5
	2 x 1¼"	10	PP.060.R02	64	39	56	5
	2 x 1½"	10	PP.060.R01	56	32	40	5
	3 x 1½"	10	PP.089.R02	91	66	135	2
	3 x 2"	10	PP.089.R01	81	52	150	2
	4 x 2"	10	PP.114.R02	81	50	210	1
	4 x 3"	10	PP.114.R01	86	49	220	1

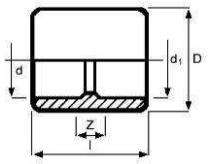
d = Spigot d_1 = Socket

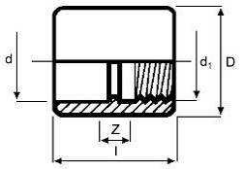
UNION Socket Fusion / EPDM Seal	n.b.	PN bar	CODE	D	l_1	l_2	z_1	z_2	Weight (g)	Pack Qty
 	½"	10	PP.021.U--	46	36	19	19	2	51	1
	¾"	10	PP.026.U--	53	37	22	17	2	68	1
	1"	10	PP.033.U--	62	38	24	15	1	92	1
	1¼"	10	PP.042.U--	74	41	26	18	3	143	1
	1½"	10	PP.048.U--	107	46	28	21	3	207	1
	2"	10	PP.060.U--	106	51	32	22	3	338	1

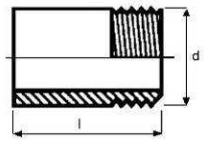
- Nut and body manufactured in beige polyvinylidene fluoride PVDF. (Check suitability of PVDF when used in PP installations). EPDM O-ring standard. FPM O-ring available to order.

All dimensions in mm

Natural Polypropylene — Adapter Fittings

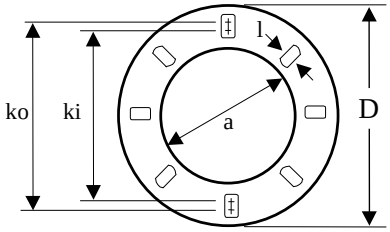
SOCKET ADAPTOR Socket Fusion	d x d_1	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	20 x ½"	10	PP.020.M--	27	37	6	10	1
	25 x ¾"	10	PP.025.M--	34	42	7	16	1
	32 x 1"	10	PP.032.M--	41	49	8	24	1
	40 x 1¼"	10	PP.040.M--	52	49	5	25	1
	50 x 1½"	10	PP.050.M--	61	53	5	124	1
	63 x 2"	10	PP.063.M--	77	61	5	96	1
	90 x 3"	10	PP.090.M--	110	81	8	240	1
	110 x 4"	10	PP.110.M--	135	96	10	370	1

SOCKET ADAPTOR Socket Fusion x FBSP	d x d_1	PN bar	CODE	D	l	z	Weight (g)	Pack Qty
 	½"	6	PP.021.C07	32	36	7	10	1
	¾"	6	PP.026.C07	34	41	9	16	1
	1"	6	PP.033.C07	45	45	9	22	1
	1¼"	6	PP.042.C07	52	49	8	40	1
	1½"	6	PP.048.C07	61	53	6	54	1
	2"	6	PP.060.C07	77	61	6	96	1
	3"	6	PP.089.C07	110	80	10	250	1
	4"	6	PP.114.C07	134	95	13	400	1

NIPPLE Plain x MBSPTr Thread	d	PN bar	CODE	l	Weight (g)	Pack Qty
 	½"	6	PP.021.NP2	55	8	5
	¾"	6	PP.026.NP2	58	10	5
	1"	6	PP.033.NP2	65	17	5
	1¼"	6	PP.042.NP2	68	29	5
	1½"	6	PP.048.NP2	68	44	5
	2"	6	PP.060.NP2	76	76	5

All dimensions in mm

Polybacker Backing Flange Universal Drilling



Manufactured from Glass Reinforced Polyester

- Colour – Black, for increased UV resistance
- Metric and inch sizes
- High strength. Lightweight for ease of handling
- Suitable for pressures up to 10 bar
- Corrosion resistant
- Suits PP, PVDF, UPVC, ABS, PE, PB, CPVC stub and full face flanges

SIZE		D	a	ki – ko	l	b	WT	Drillings Apply						CODE	Bolt Sizes	SP
OD	NB	OD	ID	PCD Min-Max	Hole Width x no. holes	Thick-ness	g	BS1560 / ASA150	BS10 Table D	BS10 Table E	BS4504 Table 6	BS4504 Table 10	BS4504 Table 16	20-110mm Suitable for socket & butt weld stub & full face flanges 140 – 160mm Suitable for socket fusion stub & full face flanges only		
20	½"	95	28	60 – 67	14 x 4	14	105	✓	✓	✓		✓	✓	AC.020.UBR	M10 M12	4
25	¾"	105	34	65 – 75	12/14 x 4	14	130	✓	✓	✓	✓	✓	✓	AC.025.UBR	M10 M12	4
32	1"	115	42	79 – 85	15 x 4	15	160	✓	✓	✓		✓	✓	AC.032.UBR	M12	4
40	1¼"	140	51	87 – 100	14/18 x 4	17	262	✓	✓	✓	✓	✓	✓	AC.040.UBR	M12	4
50	1½"	150	62	98 – 110	10/15 x 4	17	290	✓	✓	✓	✓	✓	✓	AC.050.UBR	M12 M16	4
63	2"	165	78	110 – 125	18 x 4	18	345	✓	✓	✓	✓	✓	✓	AC.063.UBR	M16	4
75	2½"	185	92	127 – 145	18 x 4	18	418	✓	✓	✓	✓	✓	✓	AC.075.UBR	M16	2
90	3"	200	110	146 – 160	18 x 4	20	500	✓	✓	✓	✓	✓	✓	AC.090.UBR	M16	2
				160 – 160	18 x 8										M16	
110	4"	229	133	170 – 191	18 x 4	20	595	✓	✓	✓	✓	✓	✓	AC.110.UBR	M16	2
				177 – 191	18 x 8										M16	
140	5"	254	167	210 – 216	18/22 x 8	26	820	✓	✓	✓		✓	✓	AC.140.UBR	M16 M20	1
160	6"	285	193	235 – 242	** 22 x 8	28	106	✓	✓	✓		✓	✓	AC.160.UBR	M16 M20	1
225	8"	343	250	292 – 299	18/22 x 8	30	153	✓	✓	✓		✓		AC.225.UBR	M16 M20	1
** Table D requires M16 bolts														For use with butt weld stub flanges only:		
125		229	135	170 – 191	18 x 4	20	560	✓	✓	✓	✓	✓	✓	PB.125.UBR	M16	2
				177 – 191	18 x 8										M16	
140		254	158	210 – 216	18/22 x 8	26	912	✓	✓	✓		✓	✓	PB.140.UBR	M16	1
160		285	178	235 – 242	22 x 8	28	124	✓	✓	✓		✓	✓	PB.160.UBR	M16	1
180		285	188	235 – 242	22 x 8	28	114	✓	✓	✓		✓	✓	PB.180.UBR	M20	1
200		343	235	292 – 299	18/22 x 8	30	173	✓	✓	✓		✓	✓	PB.200.UBR	M16	1
225		343	238	292 – 299	18/22 x 8	30	170	✓	✓	✓		✓		PB.225.UBR	M16	1

All dimensions in mm

Some makes of UPVC and ABS 4" and 6" stub and full face flanges require a larger internal diameter (a). Please consult our technical sales department before ordering. Ambient temperature should not ideally exceed 40°C, however the temperature resistance of the flanges is at least 175°C. For ambient temperatures >40°C please check the Pipe Pressure/Temperature/Service Life tables and/or contact the CPV Technical Department for advice.

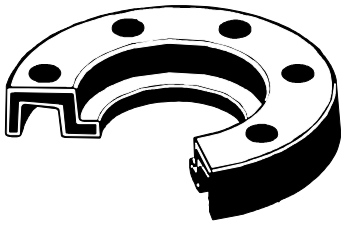
To avoid overtightening the bolts when assembling Polybacker flanged joints we recommend the use of a torque spanner. Normal bolt tightening torque M12 bolts 8nm, M16 bolts 10nm, M20 bolts 20nm.

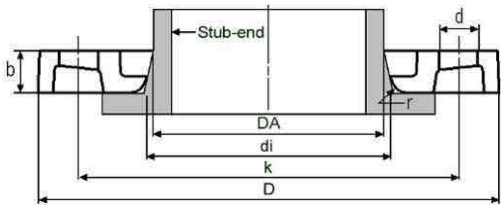
Polybacker Backing Flange Universal Drilling (continued….)

Agent	Conc.	20°C	40°C	Agent	Conc.	20°C	40°C
Acetic acid	5%	+	0	Kerosene		+	
Acetic acid	10%	+	0				
Acetic acid	100%	0	0	Methanol		+	
Acetone		0		Methylene chloride		-	-
Ammonium hydroxide	10%	0		Methylethylketone		+	0
Ammonium hydroxide	Conc.	-		Mineral oils		+	+
Aniline		+		Motor oils		+	+
Benzine		0	0	Nitric acid	10%	+	0
Bleaching lye		+	+	Nitric acid	40%	-	-
Brake fluid		+	+	Nitric acid	70%	-	-
Butane		+					
Butanol		0	0	Oleic acid	100%	+	+
Butyl acetate		+	0	Olive oil		+	+
Calcium chloride	10%	+	+	Perchloethylene		+	0
Calcium hypochlorite		+	+	Petrol		+	
Carbon disulphide		+		Petroleum ether		+	
Carbon tetrachloride		+		Phenol		0	-
Chloroform		-		Phosphoric acid	3%	+	+
Chromic acid	40%	+	-	Phosphoric acid	30%	+	+
Citric acid	10%	+	+	Phosphoric acid	85%	+	+
Cottonseed oil		+	+	Potassium chloride	10%	+	0
Cresol		-	-	Potassium dichromate	10%	+	
				Potassium hydroxide	1%	-	-
Detergents	1%	+	0	Potassium hydroxide	10%	-	-
Detergents	25%	+	0	Potassium hydroxide	60%	-	-
Dibutyl phthalate		+	+	Potassium permanganate	10%	+	
Diesel oil		+					
Dioxane		+	-	Silicone fluids		+	+
				Soap solution	1%	+	-
Ethanol		+		Sodium bicarbonate	10%	+	0
Ether (diethyl-)		+		Sodium bisulphate	10%	+	0
Ethyl acetate		0		Sodium carbonate	10%	+	-
Ethylene dichloride		-		Sodium carbonate	20%	+	-
				Sodium chloride	10%	+	0
Freon 11		+		Sodium hydroxide	1%	-	-
Formic acid	5%	+	0	Sodium hydroxide	10%	-	-
Formic acid	90%	0	-	Sodium hydroxide	60%	-	-
				Sodium hypochlorite	10%	+	0
Glycerol (Glycerine)		0	0	Sulphuric acid	3%	+	+
Glycol		0		Sulphuric acid	30%	+	+
Grease		+	+	Sulphuric acid	98%	-	-
Heptane		+		Tetrahydrofuran		0	
Hexane		+		Toluene		+	
Hydrochloric acid	10%	+	0	Transformer oil		+	+
Hydrochloric acid	Conc.	-	-	Trichlorethylene		0	
Hydrofluoric acid	5%	-	-	Turpentine		+	
Hydrofluoric acid	50%	-	-				
Hydrogen peroxide	3%	+		Vaseline		+	+
Hydrogen peroxide	30%	0		Vegetable oils		+	+
				Water		+	0
Isopropanol		0	0	White spirit		+	
				Xylene		+	

+	RESISTANT	The material when within the acceptable limits of pressure and temperature is unaffected or only insignificantly affected.
0	CONDITIONALLY RESISTANT	The chemical can attack the material or cause swelling. The chemical resistance will be more favourable at lower concentrations, temperatures and/or pressures. The service life of the installation can be noticeably shortened.
-	NOT RECOMMENDED	The material is unsuitable

Deltaflex® Backing Flange Polypropylene Encapsulated Ductile Iron





Material

- Cast ductile iron GGG40 (ASTM A536)
- Encapsulated with 30% fibreglass reinforced polypropylene – colour black

Dimensions: ISO/DIN 2501 PN10 (bolt circle PN10) BS4504 Table 10

Safety Factor: 2.0 All diameters

DA	DN		PN	CODE	Di	D	k	b	d	Bolt	Bolt	r	Nm	WT	Suitable
mm	m	Inch	Bar							holes	sizes			g	for
20	15	½"	16	**AC.020.DFP**	28	106	65	18	14	4	M12	3	35	400	
25	20	¾"	16	**AC.025.DFP**	34	118	75	18	14	4	M12	3	35	500	
32	25	1"	16	**AC.032.DFP**	42	122	85	17	14	4	M12	3	35	500	Socket
40	32	1¼"	16	**AC.040.DFP**	51	142	100	17	18	4	M16	3	35	600	and butt
50	40	1½"	16	**AC.050.DFP**	62	156	110	19	18	4	M16	3	50	800	welding
63	50	2"	16	**AC.063.DFP**	78	171	125	20	18	4	M16	3	50	900	
75	65	2½"	16	**AC.075.DFP**	92	191	145	21	18	4	M16	3	50	1200	
90	80	3"	16	**AC.090.DFP**	110	206	160	21	18	8	M16	3	50	1200	
110	100	4"	16	**AC.110.DFP**	133	226	180	22	18	8	M16	3	50	1500	Socket
140	125	5"	16	**AC.140.DFP**	167	261	210	26	18	8	M16	3	75	1800	welding
160	150	6"	16	**AC.160.DFP**	193	296	240	28	22	8	M20	3	75	2500	only
225	200	8"	10	**AC.225.DFP**	250	350	295	23	22	8	M20	4	120	2600	
90	80	3"	16	PB.090.DFP	108	206	160	21	18	8	M16	3	50	1200	
110	100	4"	16	PB.110.DFP	128	226	180	22	18	8	M16	3	50	1500	
125	100	4"	16	**PB.125.DFP**	135	226	180	23	18	8	M16	3	50	1500	
140	125	5"	16	**PB.140.DFP**	158	261	210	25	18	8	M16	3	75	2000	
160	150	6"	16	**PB.160.DFP**	178	296	240	28	22	8	M20	3	75	2500	
180	150	6"	16	**PB.180.DFP**	188	296	240	27	22	8	M20	3	90	2300	
200	200	8"	16	**PB.200.DFP**	235	350	295	32	22	8	M20	3	120	3600	Butt
225	200	8"	16	**PB.225.DFP**	238	350	295	31	22	8	M20	4	120	3500	welding
250	250	10"	16	**PB.250.DFP**	288	412	350	36	22	12	M20	4	150	5400	only
280	250	10"	16	**PB.280.DFP**	294	412	350	35	22	12	M20	4	150	5300	
315	300	12"	16	**PB.315.DFP**	338	462	400	42	22	12	M20	4	180	7200	
355	350	14"	16	PB.355.DFP	376	525	460	52	22	16	M20	6	225	11900	
400	400	16"	16	PB.400.DFP	430	586	515	56	26	16	M24	6	280	16100	
450	500	-	10	PB.450.DFP	514	690	620	54	27	20	M24	6	350	22400	
500	500	-	10	PB.500.DFP	530	690	620	55	27	20	M24	6	400	21300	
560	600	-	10	PB/560.DFP	615	804	725	62	30	20	M27	6	500	33200	
630	600	-	10	PB.630.DFP	642	804	725	62	30	20	M27	6	550	30600	

Bold items ex-stock, others available to special order

All dimensions in mm

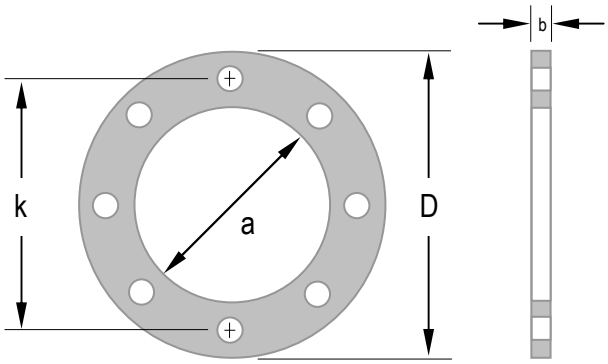
CAUTION: To avoid over tightening we recommend the use of a torque spanner. For a guideline of normal bolt tightening torques, see column Nm above.

Deltaflex® Backing Flange Polypropylene Encapsulated Ductile Iron (continued….)

- Patented unique design
- Ductile iron insert GGG40 (ASTM A536)
- Encapsulated with corrosion resistant PP reinforced with 30% fibreglass
- Guaranteed safety factor 2.0
- Lighter weight for ease of handling
- Out performs conventional steel flanges
- Suits PP, PVDF, PE, ABS, & PVC stub flanges

- During casting of the patented cross-section design ductile iron flange, material is deposited where the highest stress levels are encountered making the Deltaflex flange lighter and easier to handle than conventional plate steel flanges which need approximately 80% more material to achieve matching performance criteria.
- The unique flange shape acts like a “Belleville Washer” to compensate for any cold flow of the PP encapsulating material, thus eliminating the need for re-torquing after installation.
- The design shape of Deltaflex flanges is based upon FEM calculations (finite element method) and special considerations are given to the performance of the joint including the flange and stub. Stress testing shows Deltaflex flanges out performing conventional plate steel flanges.
- All Deltaflex flanges have a guaranteed safety factor of 2.0 based on the yield strength of the material at the stated maximum operating pressures.
- Deltaflex flanges are cast in GGG40 (ASTM A536) ductile iron. The black polypropylene material encapsulating the Deltaflex flange is reinforced with 30% fibreglass. PP has excellent resistance to corrosive chemicals in a temperature range – 20^{o} to +110^{o}C.

Backing Flanges Galvanised Mild Steel



SIZE		PN	CODE	D	a	k (PCD)	b	Hole Width	WT	SP
OD	NB	bar						x no. of holes	g	
BS10 TABLE E										
20	½"	10	AC.020.MSE	95	28	67	6	15 x 4	270	1
25	¾"	10	AC.025.MSE	102	34	73	6	15 x 4	285	1
32	1"	10	AC.032.MSE	114	42	83	6	15 x 4	390	1
40	1¼"	10	AC.040.MSE	121	51	87	6	15 x 4	395	1
50	1½"	10	AC.050.MSE	133	62	98	6	15 x 4	495	1
63	2"	10	AC.063.MSE	152	78	114	8	18 x 4	635	1
75	-	10	AC.075.MSE	165	92	127	8	18 x 4	825	1
90	3"	10	AC.090.MSE	184	110	146	8	18 x 4	1010	1
110	4"	10	AC.110.MSE	216	133	178	8	18 x 8	1390	1
160	6"	10	AC.160.MSE	279	197	235	10	22 x 8	2440	1
ASA 150										
20	½"	10	AC.020.MSA	89	28	60	6	15 x 4	240	1
25	¾"	10	AC.025.MSA	98	34	70	6	15 x 4	275	1
32	1"	10	AC.032.MSA	108	42	79	6	15 x 4	330	1
40	1¼"	10	AC.040.MSA	117	51	89	6	15 x 4	380	1
50	1½"	10	AC.050.MSA	127	62	98	6	15 x 4	430	1
63	2"	10	AC.063.MSA	152	78	121	8	18 x 4	635	1
75	-	10	AC.075.MSA	178	92	140	8	18 x 4	1095	1
90	3"	10	AC.090.MSA	190	110	152	8	18 x 4	1085	1
110	4"	10	AC.110.MSA	229	133	190	8	18 x 8	1565	1
160	6"	6	AC.160.MSA	279	197	241	10	22 x 8	2440	1
BS4504 10/16										
20	½"	10	AC.020.MSM	95	28	65	6	14 x 4	270	1
25	¾"	10	AC.025.MSM	105	34	75	6	14 x 4	325	1
32	1"	10	AC.032.MSM	115	42	85	6	14 x 4	390	1
40	1¼"	10	AC.040.MSM	140	51	100	6	18 x 4	540	1
50	1½"	10	AC.050.MSM	150	62	110	6	18 x 4	670	1
63	2"	10	AC.063.MSM	165	78	125	8	18 x 4	945	1
75	-	10	AC.075.MSM	185	92	145	8	18 x 4	860	1
90	3"	10	AC.090.MSM	200	110	160	8	18 x 8	1245	1
110	4"	10	AC.110.MSM	220	133	180	8	18 x 8	1510	1
160	6"	6	AC.160.MSM	285	197	240	10	22 x 8	2560	1

All dimensions in mm

- Sizes 20mm – 110mm suitable for socket and butt weld stub and full face flanges.
- 160mm suitable for socket weld stub and full face flanges only.

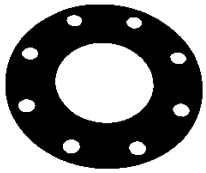
STUB GASKET EPDM

Pipe Size OD	Pipe Size n.b.	CODE	OD	ID	Thickness	Pack Qty
20	½"	AC.020.RGP	32	20	3	1
25	¾"	AC.025.RGP	39	25	3	1
32	1"	AC.032.RGP	48	32	3	1
40	1¼"	AC.040.RGP	59	40	3	1
50	1½"	AC.050.RGP	71	50	3	1
63	2"	AC.063.RGP	88	63	3	1
75	-	AC.075.RGP	104	75	3	1
90	3"	AC.090.RGP	123	90	3	1
110	4"	AC.110.RGP	148	110	3	1
160	6"	AC.160.RGP	200	155	3	1

STUB GASKET FPM

Pipe Size OD	Pipe Size n.b.	CODE	OD	ID	Thickness	Pack Qty
20	½"	AC.020.RGF	32	20	3	1
25	¾"	AC.025.RGF	39	25	3	1
32	1"	AC.032.RGF	48	32	3	1
40	1¼"	AC.040.RGF	59	40	3	1
50	1½"	AC.050.RGF	71	50	3	1
63	2"	AC.063.RGF	88	63	3	1

FULL FACE GASKET NEOPRENE BS10 Table E



Pipe Size OD	Pipe Size n.b.	CODE	OD	ID	Thickness	Hole Width x no. of Holes	Pack Qty
20	½"	AC.020.RGE	95	21	3	15 x 4	1
25	¾"	AC.025.RGE	102	27	3	15 x 4	1
32	1"	AC.032.RGE	114	34	3	15 x 4	1
40	1¼"	AC.040.RGE	121	43	3	15 x 4	1
50	1½"	AC.050.RGE	133	48	3	15 x 4	1
63	2"	AC.063.RGE	152	60	3	18 x 4	1
75	-	-					
90	3"	AC.090.RGE	184	89	3	18 x 4	1
110	4"	AC.110.RGE	216	114	3	18 x 8	1
160	6"	AC.160.RGE	279	155	3	22 x 8	1

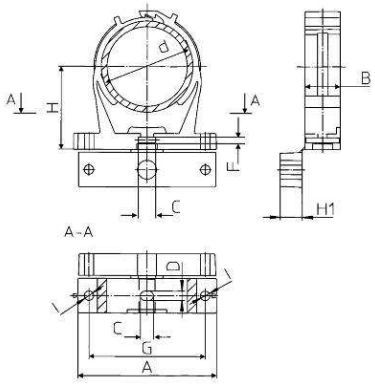
ENVELOPE GASKET PTFE

Envelope only – For use with above gaskets

Pipe Size OD	Pipe Size n.b.	CODE	OD	ID	Thickness	Pack Qty
20	½"	AC.020.PEG	30	17	4	1
25	¾"	AC.025.PEG	37	22	4	1
32	1"	AC.032.PEG	46	29	4	1
40	1¼"	AC.040.PEG			4	1
50	1½"	AC.050.PEG	69	47	4	1
63	2"	AC.063.PEG	86	60	4	1
75	-	AC.075.PEG	102	72	4	1
90	3"	AC.090.PEG	121	87	4	1
110	4"	AC.110.PEG	146	107	4	1
160	6"	AC.160.PEG	200	156	4	1

All dimensions in mm

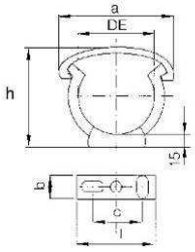
SNAP TYPE - METRIC & INCH COMPATIBLE



PIPE SIZE OD	PIPE SIZE n.b.	CODE	A	B	C	D	E	F	G
20 – 23	½"	AC.020.PCM	56	14	9	6.5	11	3.5	41
25 – 28	¾"	AC.025.PCM	61	16	9	6.5	11	3.5	46
31 – 35	1"	AC.032.PCM	67	16	9	6.5	11	3.5	52
39 – 43	1¼"	AC.040.PCM	80	17.5	9	6.5	11	3.5	64
47 – 51	1½"	AC.050.PCM	84.5	20	9	6.5	11	3.5	70
60 – 65	2"	AC.063.PCM	96.5	24	9	6.5	11	3.5	80
72 – 80	2½"	AC.075.PCM	126	26	12	8.5	14	4.3	106
87 – 95	3"	AC.090.PCM	137	26	12	8.5	14	4.3	117

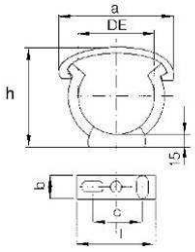
PIPE SIZE OD	PIPE SIZE n.b.	CODE	H	H_1	I	WT (g)	Pack Qty
20 – 23	½"	AC.020.PCM	27	6	6.5	10	5
25 – 28	¾"	AC.025.PCM	30	10	6.5	13	5
31 – 35	1"	AC.032.PCM	31.5	11.5	6.5	15	5
39 – 43	1¼"	AC.040.PCM	37	14	6.5	21	5
47 – 51	1½"	AC.050.PCM	41	15	6.5	29	5
60 – 65	2"	AC.063.PCM	49	15	6.5	42	5
72 – 80	2½"	AC.075.PCM	70	15	8.5	75	2
87 – 95	3"	AC.090.PCM	80	20	8.5	90	2

SNAP TYPE - METRIC



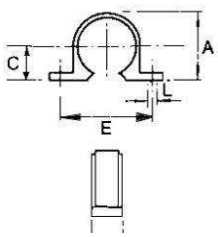
PIPE SIZE OD	PIPE SIZE n.b.	CODE	a	b	h	i	c	WT (g)	Pack Qty
110	-	AC.110.PCM	139	23	134	125	40	80	1
160	-	AC.160.PCM	210	30	190	180	90	220	1

SNAP TYPE - INCH



PIPE SIZE OD	PIPE SIZE n.b.	CODE	a	b	h	i	c	WT (g)	Pack Qty
-	4"	AC.114.PCM	140	25	135	140	60	80	1
-	6"	AC.168.PCM	197	30	196	180	90	220	1

SADDLE TYPE - INCH



PIPE SIZE OD	PIPE SIZE n.b.	CODE	A	C	E	G	Bolt	L	Screw	WT (g)	Pack Qty
-	½"	AC.021.PCS	29	15	41	14	M4	8		4	5
-	¾"	AC.026.PCS	40	24	44	15	M5	10		6	5
-	1"	AC.033.PCS	47	27	56	15	M5	10		7	5
-	1¼"	AC.042.PCS	55	32	65	15	M5	10		11	5
-	1½"	AC.048.PCS	62	37	67	15	M5	10		12	5
-	2"	AC.060.PCS	78	45	87	22	M6	12		25	5

All dimensions in mm

Socket Welded Tools

110v Machine KIT
Complete with Fusion Tool Ends for all sizes

110v Machine TOOL
No Fusion Ends

Fusion Tool Ends
PTFE coated Male & Female Block

Metric Range:

Image	Part No.	Size (mm)	Sale £ each	Hire £/week
A	063.CFL	20 - 63	£880.00	£231.00
	110.CFL	20 - 110	£1,613.00	£221.00
B	063.FEL	20 - 63	£646.00	£88.50
	110.FEL	75 -110	£766.00	£116.50
C	020.FSE	20	£84.00	£19.10
	025.FSE	25	£88.10	£19.90
	032.FSE	32	£87.80	£20.30
	040.FSE	40	£94.80	£24.40
	050.FSE	50	£113.80	£25.20
	063.FSE	63	£124.00	£27.90
	075.FSE	75	£189.20	£37.70
	090.FSE	90	£199.10	£43.80
	110.FSE	110	£225.90	£49.50
	160.FSE	160	£323.60	£71.30

Inch Range:

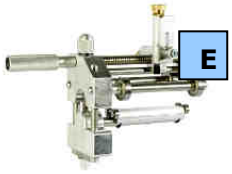
Image	Part No.	Size (inch)	Sale £ each	Hire £/week
A	060.CFL	½ - 2	£924.00	£219.50
	114.CFL	½ - 4	£1,692.00	£211.50
B	063.FEL	½ - 2	£646.00	£88.50
	110.FEL	3 - 4	£766.00	£116.50
C	021.FSE	½	£87.85	£20.10
	026.FSE	¾	£92.54	£20.90
	033.FSE	1	£99.68	£21.40
	042.FSE	1¼	£115.81	£25.60
	048.FSE	1½	£119.57	£26.50
	060.FSE	2	£130.36	£29.30
	-	-	-	-
	089.FSE	3	£209.12	£46.00
	114.FSE	4	£237.24	£52.10
	168.FSE	6	£323.57	£74.80

Electro-Fusion Tools

Available in Metric Sizing Only:

Image	Part No.	Size (mm)	Sale £ each	Hire £/week
D	001.EFT	20-225	POA	£130.40
E	001.PBS	50-225	POA	£68.60
	002.PBS	20-63	POA	POA
F	063.CLA	16-63	POA	£18.70
	180.CLA	63-180	POA	POA
	250.CLA	180-250	POA	POA

Welding Machine
For use with 39.5v constant voltage fittings only



Peeling/Bevelling Tools

Clamp Sets (mm)

Specification Clauses

Metric Polypropylene Beige Grey Pressure Pipe

Metric pressure polypropylene pipes shall be manufactured from beige grey (RAL 7032) polypropylene block copolymer (PP-B) to dimensions and tolerances as specified in ISO 15494 : 2003. The pipe shall have a high impact resistance particularly at sub zero temperatures to -20°C. The quality standards and testing regime for the manufacture of the pipe shall be to DIN 8078 (Type 2 (PP-B)):1994. The pipes shall be **Chemflo** metric polypropylene pressure pipes from CPV Ltd. (01794 322884).

Metric Polypropylene Beige Grey Pressure Fittings

Metric pressure polypropylene fittings shall be manufactured from beige grey (RAL 7032) polypropylene block copolymer (PP-B) to dimensions and tolerances as specified in DIN 16962 & ISO 7279:1984 and ISO 15494 : 2003 Type B. The quality standards and testing regime for the manufacture of the fittings shall be to DIN 16962-5 and ISO 15494 : 2003. The fittings shall be **Chemflo** metric polypropylene pressure fittings from CPV Ltd. (01794 322884).

Metric Polypropylene Beige Grey Pressure Valves

Metric pressure polypropylene valves shall be manufactured from beige grey (RAL 7032) polypropylene homopolymer (PP-H) to dimensions and tolerances as specified in DIN 3442. The valve connections shall be manufactured to DIN 16962 (Socket & butt fusion), ANSI ASA DIN JIS (Flanges. The quality standards and testing regime for the valve shall be to DIN 3442 TI and certified DIN EN19. The valves shall be Praher metric polypropylene pressure valves from CPV Ltd.(01794 322884).

Inch Polypropylene Beige Grey Pressure Pipes

Inch pressure polypropylene pipes shall be manufactured from beige grey (RAL 7032) polypropylene block copolymer (PP-B) to materials, dimensions, tolerances, marking and test methodology as specified in BS 4991: 1974 Series 2. The pipe shall have a high impact resistance particularly at sub zero temperatures to -20°C. The pipes shall be **Chemflo** inch polypropylene pressure pipes from CPV Ltd. (01794 322884).

Inch Polypropylene Beige Grey Pressure Fittings

Inch pressure polypropylene fittings shall be, manufactured from beige grey (RAL 7032) polypropylene copolymer (PP-B) to fit pipes of dimensions and tolerances as specified in BS 4991: 1974 Series 2. The fittings shall either be socket fusion (10 bar), or threaded (6 bar) up to 4" diameter. The fittings shall have a high impact resistance particularly at sub zero temperatures to -20°C. The fittings shall be **Chemflo** inch polypropylene pressure fittings from CPV Ltd. (01794 322884).

Inch Polypropylene Beige Grey Pressure Valves

Inch pressure polypropylene valves shall be socket fusion type, manufactured from beige grey (RAL 7032) polypropylene homopolymer (PP-H) to fit pipes of dimensions and tolerances as specified in BS 4991: 1974 Series 2. The quality standards and testing regime for the valve shall be to DIN 3442 TI and certified DIN EN19. The valves shall be Praher inch polypropylene pressure valves from CPV Ltd. (01794 322884).

Inch Polypropylene Pure / Natural Pressure Pipes

Inch pressure polypropylene pipes shall be manufactured from natural pure polypropylene block copolymer (PP-B) to materials, dimensions, tolerances, marking and test methodology as specified in BS 4991: 1974 Series 1. The pipes shall be **Chemflo** inch natural polypropylene pressure pipes from CPV Ltd. (01794 322884).

Inch Polypropylene Pure / Natural Pressure Fittings

Inch natural pressure polypropylene fittings shall be, manufactured from pure unpigmented polypropylene block copolymer (PP-B) to fit pipes of dimensions and tolerances as specified in BS 4991: 1974 Series 1. The fittings shall be socket fusion (10 bar) up to 4" diameter. The fittings shall have a high impact resistance particularly at sub zero temperatures to -20°C. The fittings shall be **Chemflo** inch natural polypropylene pressure fittings from CPV Ltd. (01794 322884).

Metric Polyvinylidene Fluoride (PVDF) Pressure Pipe

Metric pressure PVDF pipes shall be manufactured from pure un-pigmented Solef PVDF to dimensions and tolerances as specified in BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The quality standards and testing regime for the manufacture of the pipe shall be to BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The pipes shall be **Chemflo** metric PVDF pressure pipes from CPV Ltd. (01794 322884).

Metric Polyvinylidene Fluoride (PVDF) Pressure Fittings

Metric pressure PVDF fittings shall be manufactured from pure un-pigmented Solef PVDF to dimensions and tolerances as specified in BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The quality standards and testing regime for the manufacture of the fittings shall be to BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The fittings shall be **Chemflo** metric PVDF pressure fittings from CPV Ltd. (01794 322884).

Metric Polyvinylidene Fluoride (PVDF) Pressure Valves

Metric pressure PVDF valves shall be manufactured from pure un-pigmented Solef PVDF to dimensions and tolerances as specified in BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The valve connections shall be manufactured to BS ISO 10931 Pts 1-5 : 1997 (Pipes, Fittings and Valves). The quality standards and testing regime for the valve shall be to ISO / FDIS 9393-2 and certified DIN EN19. The valves shall be Praher metric PVDF pressure valves from CPV Ltd.(01794 322884).

Conditions of Sale

1) **General**:

The acceptance of this tender includes the acceptance of the following terms and conditions. Notwithstanding any terms or conditions of purchase communicated by the Buyer to the Company at any time orders are only accepted on the foregoing terms and conditions of sale, and no variation thereof, or term or condition thereof (whether purported to be made or imported before or after the placing of the order) shall be binding on the Company unless expressly accepted by it in writing. Any concession or waiver made by the Company to the Buyer at any time shall not prejudice the exercise by the Company of its rights hereunder. An order may be deemed accepted by the Company when it is duly acknowledged in writing, orally or by conduct.

2) **Cancellation**:

Orders received and acknowledged by us shall not be subject to cancellation, either wholly or partially, without our consent, and delay in delivery or cancellation of customer's contracts will not be regarded as constituting sufficient reason or cause for termination of the contract.

3) **Quotations**:

Quotations unless previously withdrawn shall be valid for a period not exceeding 30 days from their date of issue.

4) **Delivery**:

Any stipulated period of time for delivery shall date from the receipt by us of the Buyer's written Order to proceed or of all the necessary information, drawings etc. to enable us to put the work in hand, whichever be the later. Every effort will be made to keep to delivery dates but no liability can be accepted for the loss caused through delay. Unless otherwise agreed, a special charge will be made by us for any special delivery of goods ordered by the Buyer. In the case of period contracts calling for deliveries at stated intervals, if any variation in the delivery rate is required a minimum of one clear month's notice must be given of any such variation. Should manufacture, despatch or delivery be delayed by war, fire, strikes, lockouts, civil commotion, accidents, defective material, or by the act or default on the part of the purchaser, or by any cause whatsoever beyond our reasonable control, a reasonable extension of time shall be granted.

5) **Carriage**:

Goods despatched from our Works are subject to Carriage and Packing charges.

6) **Drawings etc**:

All illustrations, preliminary drawings, specifications, and particulars of weights and measures submitted with this tender are approximate only, and the descriptions contained in our catalogues and other advertisement matter are intended merely to present a general idea of the goods and are not necessarily binding in detail.

7) **Inspection**:

Goods manufactured by us are carefully inspected and tested before despatch, facilities for inspection will be provided at our works. In the event of examinations being required during construction be an external authority, these will be charged for extra unless such examinations have been definitely specified and included in our tender. In any case, it is to be clearly understood that tests and inspections are not to delay the progress of work.

8) **Erection**:

This tender covers the terms of the specification only, and unless otherwise expressly stated, does not include any of the following:-
Builders, Joiners, Masons, Plumbers, Painters, Electricians or any other trades works, supply and erection of scaffolding, ladders or movable appliances, hoisting and or lowering gear, fuel, water, gas or electric current, lighting, fees of District Surveyor, insurance inspectors or any other such fees.
we have assumed a clear site, free from all obstructions and ease of access from road. Any expense or extra cost due to difficult, abnormal or unusual circumstances affecting transport, delivery or erection, not communicated to us before we tender, and not provided for in the tender, will be charged as an extra. the purchaser to be responsible for Employer's Liability and Workmen's Compensation of all labour they supply us on the contract, our responsibility extending only to any Superintendent and labour directly organised and paid by us.

9) **Liability**:

a) Whilst every endeavour is made to supply goods of sound workmanship and material, no guarantee or warranty is given or to be implied as to the soundness, workmanship, or efficiency of any article supplied for any purpose.

b) If any goods show defects arising solely from faulty materials and or workmanship, our liability shall be limited to repairing or replacing such goods, but no such liability shall arise unless notification of such defects is received by us within 30 days from receipt of goods. Save as aforesaid, all conditions, liabilities and warranties express or implied by statute, common law or otherwise are excluded.

c) We shall be under no liability whatsoever for the cost of removing, fixing or for any other consequential loss or damage direct or indirect of whatsoever nature.

d) We can accept no responsibility for any drawing, design or specification not prepared by us, and submission of this tender does not constitute any warranty, guarantee, representation or opinion of the practicality of construction or of the efficiency, safety or otherwise of materials to be supplied or work to be executed by us in accordance therewith and the cost of any additional work caused by defects in any such drawings, designs or specifications shall be chargeable as an extra.

e) In no case shall be liable for any consequential loss or damage caused directly or indirectly by any defect or otherwise howsoever

f) It the apparatus is put into operation by the customer or by us at his request before it is handed over, the customer is liable for any damage or loss, direct or indirect thereby caused and also for any extra work thereby entailed.

g) Work to the buyers own drawings and design is undertaken only on his own guarantee that they do not infringe any British or Foreign patents and that the buyer also undertakes to indemnify us against all judgments, decrees, costs and expenses resulting upon such infringements should any claim be made upon us.

10) **Damage in transit**:

Where transit in Great Britain is included we will repair or replace at our option, free of charge, goods damaged in such transit, provided the carriers and ourselves receive written notification of such damage within three days of delivery, but not otherwise.

11) **Storage**:

If we do not receive forwarding instructions by the agreed date of delivery, a charge will be made for storage and fire insurance, and goods shall be paid for as if delivery had taken place.

12) **Dies and Moulds**:

Dies and Moulds necessary for the production of manufactured goods, remain our property, even when the Buyer has been debited with part cost.

13) **Ancillary Equipment**:

When purchasers specify any particular make of Ancillary Equipment, we shall not be held responsible for the quality of same, or for any delay in delivery, and non-delivery of such specified Ancillary Equipment, shall not delay payments for work except to the extent of the cost to us of items not delivered.

14) **Terms of Payment**

a) For goods supplied only, Strictly Net Cash within 30 days of despatch.

b) For goods supplied and erected. Payment shall be made as the work proceeds of ninety percent of the value of the work executed and of materials delivered on the site (whether fixed or unfixed), such payment to be made within one month of application. If default is made in any payment due, then we may suspend or abandon the work, and remove unfixed materials, tools and other equipment from site. Any such cancellation or suspension shall not give rise to any claims whatsoever by the Buyer and shall be without prejudice to the Company's right to recover any amount due from the Buyer and the exercise of any other rights by the Company. Five percent shall be paid when the installation is completed, and the balance one month thereafter. Interest at 4% over bank rate to be charged on all overdue accounts.

15) **Passing of Property**:

a) The property in the goods shall not pass to the Buyer and the Buyer shall keep the goods as Bailee and Trustee for the Company until the price of the goods shall have been wholly paid and until any other sums whatsoever which are due from the Buyer to the Company shall have been paid in full. Notwithstanding the above the Buyer shall be entitled to sell the goods to third parties in the normal course of business, but the proceeds of any such sale shall when any sum whatsoever is due from the Buyer to the Company be held in Trust for the Company.

b) The Company shall be at liberty if at any time the whole or any part of the price of the goods supplied under the contract has not been paid after it has become due to enter on to any land where goods supplied to the Buyer under any contract may be (including land of third parties where the Buyer has a right of possession, or other possessary right to the goods against such third parties) to recover possession of the same. Upon recovery of possession of the goods, the risk in such goods repossessed shall revert to the Company. In the case of the sale of equipment and/or components or attachments thereto the provisions of this clause shall apply with equal force and effect and the goods shall continue to be in the ownership of the Company until the whole price of the goods has been paid notwithstanding that the goods may have been affixed to any land. Any expenses involved in the removal of the goods or damage caused to any land by the Company in the exercise of it's powers under this clause shall be borne by the Buyer.

c) If any of the goods are processed into, incorporated in, used as materials for, or mixed with any other goods or materials prior to such payment, the property (but not the risk) in the whole of such other goods or materials shall pass to the Company at the moment of such processing, incorporation, use or admixture and shall remain with the Company until payment of all such monies as are specified in sub-clause (a) hereof.

16) **Goods Returned for Credit**: We reserve the right to decide whether goods can be accepted back for credit. Goods returned to us for credit will not be accepted unless previously agreed by us in writing. Goods returned by prior written agreement will be subject to inspection before any offer of credit is made to the Buyer. Credit allowed on such goods will be subject to a deduction of charges for inspection, cleaning, restocking and rejects. Fabricated and non-standard goods can not be accepted for credit.

17) **Legal Construction**: The contract shall in all respects be constructed and operated as an English contract and in conformity with English law.

18) The titles of the Clauses shall not effect their legal construction

19) **Price variation:** Materials, Labour and Transport - This tender is based on the prices of materials, labour and transport ruling at the date of tender, and we reserve the right to amend the tender price to meet any variations in these prices due to legislation, Government Orders, regulations of Directors changes in the national agreement and conditions in the industry or any other cause.

CPV

Engineering Pipework Solutions

CPV Ltd
Woodington Mill, East Wellow
Romsey, Hampshire, SO51 6DQ, UK
Tel: +44 (0)1794 322884
Web: www.cpv.co.uk