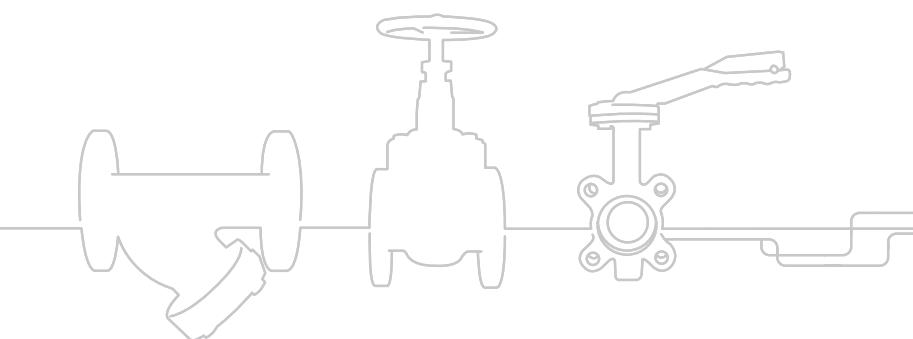




## Plastic Products



### Product Information

## uPVC PIPE SYSTEMS

uPVC (unplasticised poly vinyl chloride) is one of the most popular thermoplastic materials used for pipework installations. Light weight, uPVC has excellent resistance to chemicals and abrasion, is tasteless and odourless making it ideal for use with potable water systems and most food products as its extremely smooth bore gives excellent flow characteristics.

uPVC is resistant to most solutions of acids, alkalis, salts and solvents which can be mixed with water. Connections can be made either solvent cement or BSP threaded fittings. uPVC products are clearly identified by their dark grey colour.

## ABS PIPE SYSTEMS

ABS (acrylonitrile butadiene styrene) is an extremely robust thermoplastic pipework system used by many industries in systems for food and beverage production, sewerage and water treatment etc. ABS is extremely resistant to impact with good resistance to chemicals, is non-toxic, conforming to the toxicological requirements of the British Plastic Federation, British Industrial Biological Research Association Code of Practice for Food Usage 45/5, and EEC requirements for plastic materials in contact with foodstuffs. These systems are light, strong and simple to fit using a solvent cement. ABS products are clearly identified by their light grey colour.

## CHEMICAL RESISTANCE

### uPVC

Has chemical resistance properties which are excellent, being resistant to most solutions of salts, acids, alkalis and water soluble solvents. These products are NOT resistant to aromatic or chlorinated hydrocarbons.

### ABS

Has good resistance to a wide range of diluted inorganic acids, organic acids, salts, animal fats and oils but ABS is NOT resistant to organic solvents, alcohol, petrol, acetic acid or vegetable oils.

For information on specific chemical resistance for both uPVC and ABS please contact our sales department.

## STANDARDS

Albion products are generally in accordance with the following standards.

uPVC Fittings BS4346 part 1

ABS Fittings BS5392 part 1

Threaded Fittings BS21, DIN2999, ISO7

uPVC Solvent Cement BS4346 part 3

Albion fittings and valves have WRAS approval for use on potable water certificate numbers 1009531, 1009532 refer.

## QUALITY AND ENVIRONMENT

Albion's commitment to quality is reflected by our operation of an independently assessed quality management system registered under ISO 9001:2008 We also operate an environmental management system that has been successfully assessed against the ISO 14001:2004 environmental management standard.

## IMPERIAL AND METRIC SIZES

We have prepared the following information to assist those who are not familiar with the method of describing metric and imperial sizes when specifying pipes and fittings.

Imperial pipe fittings and other components are specified by the nominal size of the pipe bore in inches and fractions of an inch.

Metric pipe fittings and other components are specified by reference to the outside diameter expressed in millimetres.

The following table gives a general guide for comparison between metric and imperial sizes up to 8 inches. It is essential to understand that metric and imperial are not usually interchangeable as the actual equivalents are slightly different.

However the following sizes coincide exactly:

2½" with 75mm\*

5" with 140mm\*

Nominal bore (inches)	Imperial Sizes Outside Diameter (mm)	Metric Sizes Pipe Outside Diameter (mm)
3/8"	17.1	16
1/2"	21.3	20
3/4"	26.7	25
1"	33.4	32
1 1/4"	42.2	40
1 1/2"	48.3	50
2"	60.3	63
2 1/2"	75*	75*
3"	88.9	90
4"	114.3	110
5"	140*	140*
6"	168.3	160
8"	219.1	225

## PRESSURE RATINGS FOR uPVC FITTINGS & VALVES

Unless otherwise indicated the pressure ratings are as follows:

Product	Size Inches	Pressure Rating
Fittings Solvent Cement	1/2 - 6	15 bar
	8	9 bar
Fittings Threaded	3/8 - 4	10 bar
Ball Valves	3/8 - 2	16 bar
	2 1/2 - 4	10 bar
3 Way & Diaphragm Valves	3/8 - 2	10 bar
Wafer Check Valves	1 1/4 - 12	10 bar
Butterfly Valves	2 - 5	10 bar
	6 - 10	6 bar

## PRESSURE RATINGS FOR ABS FITTINGS & VALVES

Product	Size Inches	Pressure Rating
Fittings Solvent Cement	1/2 - 4	15 bar
	6	12 bar
	2 1/2 & 8	9 bar
Ball Valves	3/8 - 2	15 bar
	2 1/2 - 4	9 bar

All pressure ratings are at 20°C

## TEMPERATURE AND PRESSURE

The recommended working temperature range for uPVC pipework systems is from 0°C to 60°C. The recommended working temperature range for ABS pipework systems is from minus 40°C to 80°C. Pressure ratings of pipe and fittings are always quoted with, and subject to, a given temperature, normally 20°C. They can be used at higher temperatures but it is a fundamental principle of plastic pipework systems that if the temperature is increased then the pressure must be reduced. For temperatures above 20°C the recommended maximum pressure ratings are progressively reduced.

Although ABS pipe systems are suitable for use at temperatures as low as minus 40°C, it is necessary as with any other pipeline materials, to take precautions to prevent the line fluid freezing and causing consequent damage to the pipework system.

## THERMAL EXPANSION

The thermal coefficient of linear expansion for uPVC is  $7.0 \times 10^{-5}/^{\circ}\text{C}$

The thermal coefficient of linear expansion for ABS is  $10.1 \times 10^{-5}/^{\circ}\text{C}$

It is necessary in certain situations to make special provision for this expansion and contraction.

Valves, heavy flanges and any ancillary equipment should be independently supported. They can also be used as anchor points to control expansion.

## SOLVENT CEMENTS

Albion solvent cements are specially formulated for use with Albion Plastic Products. The correct solvent cement, which creates a bond between pipe and fitting, must be used for solvent welding. uPVC and ABS systems use different cements so no attempt should be made to solvent weld ABS fittings with uPVC cement or uPVC fittings with ABS cement.

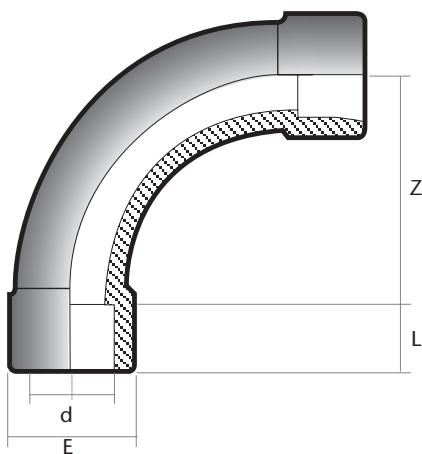
An indication of the number of joints likely to be made per litre of Albion solvent cement is:

Size	uPVC	ABS
1/2 - 1	300	400
1 1/4 - 2	120	175
3	50	70
4	30	45
6	15	25
8	8	15
10	3	4
12	3	4

Albion solvent cements are available in 1/2 litre tins, instructions for recommended solvent welding procedures are printed on each tin. These instructions should be carefully followed.

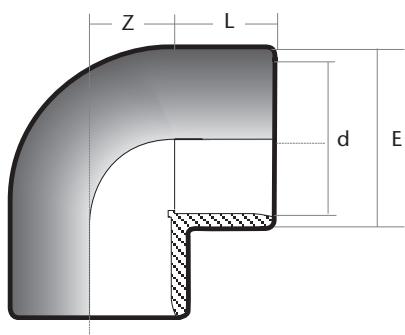
## BE33

90° S/R Bends



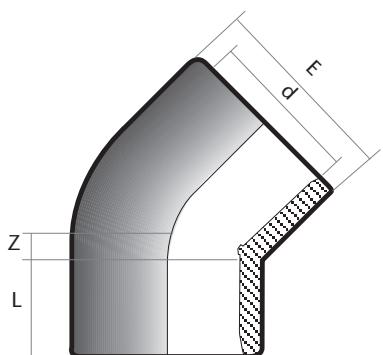
## EL53

90° Elbows



## EY53

45° Elbows



d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	40	28	0.030	0.038
3/4"	19	50	35	0.045	0.059
1"	22	64	42	0.090	0.118
1 1/4"	26	80	51	0.138	0.180
1 1/2"	31	100	63	0.245	0.320
2"	38	126	77	0.410	0.535
2 1/2"	44	150	94	0.780	1.015
3"	51	180	113	1.220	1.590
4"	61	220	132	2.030	2.640

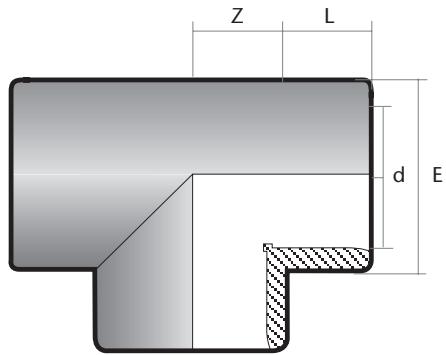
d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	11	26.5	0.011	0.015
3/4"	19	14	32.5	0.018	0.024
1"	22	17	41	0.032	0.042
1 1/4"	26	23	50	0.054	0.072
1 1/2"	31	28	60	0.112	0.150
2"	38	34	75	0.214	0.285
2 1/2"	44	40	89	0.285	0.375
3"	51	48	106	0.492	0.655
4"	61	58	129	0.812	1.080
5"	76	73	164	1.500	1.990
6"	86	81	188	3.000	3.990
8"	119	115	258	6.465	8.600

d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	5.5	28	0.011	0.015
3/4"	19	6	34	0.019	0.025
1"	22	8	42	0.031	0.041
1 1/4"	26	10	51	0.044	0.059
1 1/2"	31	12	61	0.094	0.125
2"	38	15	75	0.161	0.215
2 1/2"	44	18	88	0.233	0.310
3"	51	21	106	0.376	0.500
4"	61	25	130	0.690	0.920
5"	76	32	164	1.230	1.640
6"	86	36	197	1.616	2.150
8"	119	49	258	4.600	6.800

Dimensions in mm

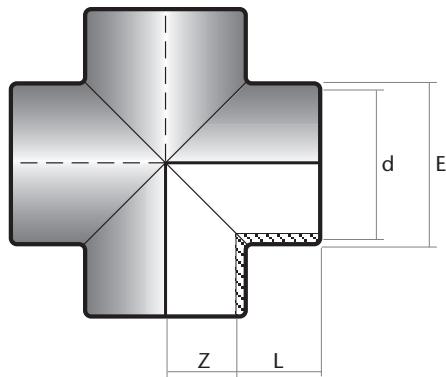
This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

## TE43 Equal Tees



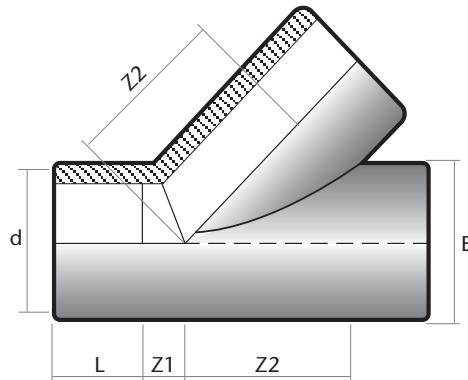
d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	11	27.5	0.016	0.021
3/4"	19	14	33.5	0.026	0.035
1"	22	17	42	0.047	0.063
1 1/4"	26	21	51	0.076	0.101
1 1/2"	31	26	61	0.153	0.207
2"	38	33	75	0.274	0.365
2 1/2"	44	39	89	0.373	0.495
3"	51	47	106	0.630	0.837
4"	61	57	129	1.083	1.440
5"	76	72	162.5	1.917	2.610
6"	86	81	188	3.720	4.950
8"	119	114	258	8.350	11.10

## CR33 Crosses



d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	11	27.5	0.020	0.026
3/4"	19	14	33.5	0.032	0.041
1"	22	17	42	0.056	0.072
1 1/4"	26	21	51	0.088	0.114
1 1/2"	31	26	61	0.180	0.233
2"	38	33	75	0.318	0.411
2 1/2"	44	40	89	-	0.776

## TY43 45° Tees



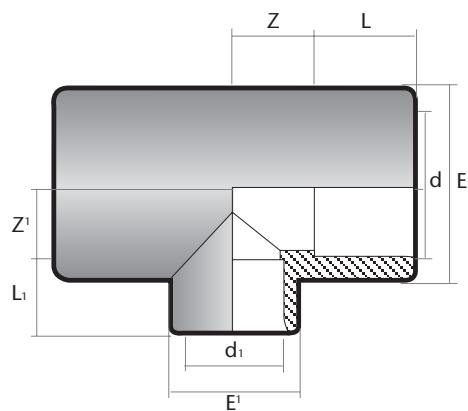
d	L	Z1	Z2	E	Kg. ABS	Kg. PVC
1/2"	16	7	29	27.5	0.028	0.036
3/4"	19	7	36	33.5	0.038	0.049
1"	22	8	44	42	0.071	0.092
1 1/4"	26	10	54	50.5	0.115	0.149
1 1/2"	31	12	65	61	0.230	0.297
2"	38	14	80	74.5	0.397	0.513
2 1/2"	44	18	101	91	-	0.690

Dimensions in mm

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## TR43

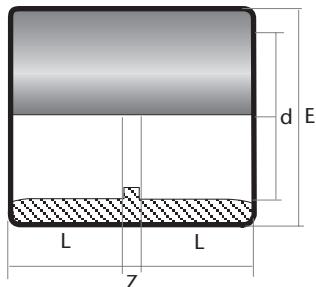
Reducing Tees



dx d1	L	L1	Z	Z1	E	E1	Kg. ABS	Kg. PVC
3/4" x 1/2"	19	16	14	14	33.5	28	0.032	0.042
1" x 1/2"	22	16	17	17	42	28	0.052	0.069
1" x 3/4"	22	19	17	17	42	34	0.053	0.070
1 1/4" x 1/2"	26	16	21	21	51	38	0.084	0.112
1 1/4" x 3/4"	26	19	21	21	51	34	0.086	0.115
1 1/4" x 1"	26	22	21	21	51	42	0.089	0.118
1 1/2" x 1/2"	31	16	26	26	61	28	0.116	0.155
1 1/2" x 3/4"	31	19	26	26	61	34	0.125	0.166
1 1/2" x 1"	31	22	26	26	61	42	0.128	0.170
1 1/2" x 1 1/4"	31	26	26	26	61	51	0.134	0.178
2" x 1 1/2"	38	16	33	33	75	28	0.202	0.268
2" x 3/4"	38	19	33	33	75	34	0.203	0.270
2" x 1"	38	22	33	33	75	42	0.207	0.275
2" x 1 1/4"	38	26	33	33	75	51	0.216	0.288
2" x 1 1/2"	38	31	33	33	75	61	0.225	0.300
2 1/2" x 1"	44	22	39	39	89	42	0.348	0.463
2 1/2" x 1 1/4"	44	26	39	39	89	51	0.350	0.465
2 1/2" x 1 1/2"	44	31	39	39	89	61	0.350	0.465
2 1/2" x 2"	44	38	39	39	89	75	0.359	0.478
3" x 1 1/4"	51	26	47	47	106	51	0.528	0.702
3" x 1 1/2"	51	31	47	47	106	61	0.556	0.740
3" x 2"	51	38	47	47	106	75	0.556	0.740
3" x 2 1/2"	51	44	47	47	106	89	0.591	0.760
4" x 1 1/2"	61	31	57	57	129	61	0.940	1.250
4" x 2"	61	38	57	57	129	75	0.902	1.200
4" x 2 1/2"	61	44	57	57	129	89	0.917	1.220
4" x 3"	61	51	57	57	129	106	0.940	1.250

## SO13

Sockets



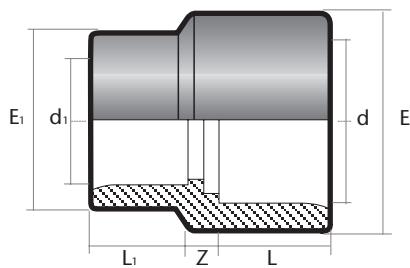
d	L	Z	E	Kg. ABS	Kg. PVC
1/2"	16	3	28	0.010	0.013
3/4"	19	3	34	0.016	0.020
1"	22	3	42	0.025	0.033
1 1/4"	26	3	51	0.042	0.056
1 1/2"	31	3	61	0.067	0.089
2"	38	3	75	0.126	0.168
2 1/2"	44	4	88	0.167	0.222
3"	51	5	106	0.279	0.372
4"	61	6	129	0.466	0.620
5"	76	9	161	0.827	1.100
6"	86	11	191	1.247	1.658
8"	119	11	258	3.160	4.200

Dimensions in mm

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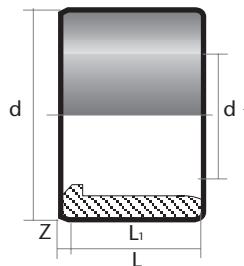
## RS13

Reducing Sockets



## RB93

Reducing Bushes



dxd1	L	L1	Z	E	E1	Kg. ABS	Kg. PVC
3/4" x 1/2"	19	16	6	34	28	0.025	0.032
1" x 3/4"	22	19	6	42	33	0.035	0.053
1 1/4" x 1"	26	22	6	51	41	0.058	0.089
1 1/2" x 1 1/4"	31	26	6	61	50	0.080	0.134
2" x 1 1/2"	38	31	6	75	60.5	0.120	0.225
2 1/2" x 2"	44	38	6	89	75	0.210	0.359
3" x 2 1/2"	51	44	6	106	88	0.300	0.571
4" x 3"	61	51	6	129	106	0.510	0.940

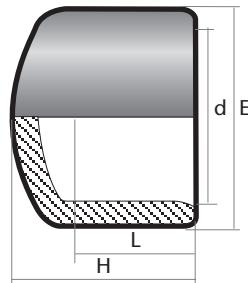
dxd1	L	L1	Z	Kg. ABS	Kg. PVC
3/4" x 1/2"	19	16	3	0.004	0.004
1" x 1/2"	22	16	6	0.012	0.012
1" x 3/4"	22	19	3	0.008	0.008
1 1/4" x 1/2"	26	16	10	0.023	0.023
1 1/4" x 3/4"	26	19	7	0.022	0.022
1 1/4" x 1"	26	22	4	0.015	0.015
1 1/2" x 3/4"	31	19	12	0.029	0.029
1 1/2" x 1"	31	22	9	0.032	0.032
1 1/2" x 1 1/4"	31	26	5	0.017	0.017
2" x 1"	38	22	16	0.052	0.052
2" x 1 1/4"	38	26	12	0.053	0.053
2" x 1 1/2"	38	31	7	0.041	0.041
2 1/2" x 1 1/2"	44	31	13	0.089	0.089
2 1/2" x 2"	44	38	6	0.072	0.072
3" x 1 1/2"	51	31	20	0.159	0.159
3" x 2"	51	38	13	0.137	0.137
3" x 2 1/2"	51	44	7	0.116	0.116
4" x 2"	61	38	23	0.337	0.337
4" x 2 1/2"	61	44	17	0.266	0.266
4" x 3"	61	51	10	0.246	0.246
5" x 3"	76	51	25	0.455	0.455
5" x 4"	76	61	25	0.410	0.410
6" x 4"	86	61	25	0.683	0.683
8" x 6"	119	86	33	1.540	1.540

Dimensions in mm

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## CA73

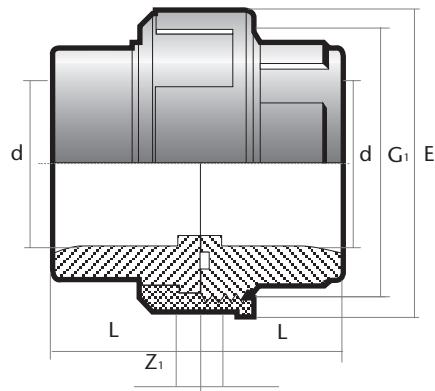
Caps



d	L	H	E	Kg. ABS	Kg. PVC
1/2"	16	27	28	0.008	0.010
3/4"	19	31	33	0.012	0.016
1"	22	36	41	0.020	0.026
1 1/4"	26	43	50	0.030	0.040
1 1/2"	31	49	60.5	0.055	0.073
2"	38	57	75	0.096	0.128
2 1/2"	44	67	89	0.133	0.178
3"	51	80	106	0.228	0.310
4"	61	95	129	0.390	0.520
5"	76	114	161	0.713	0.920
6"	86	126	181	1.021	1.317
8"	119	145	258	2.615	3.478

## UN83

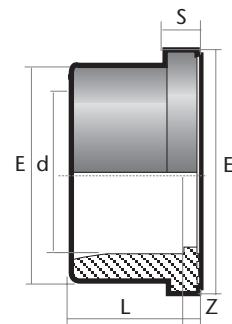
Socket Unions



d	L	Z1	Z2	G1	E	Kg. ABS	Kg. PVC
1/2"	16	3	10	1"	42	0.042	0.041
3/4"	19	3	10	1 1/4"	52	0.070	0.067
1"	22	3	10	1 1/2"	59	0.097	0.090
1 1/4"	26	3	12	2"	72	0.155	0.135
1 1/2"	31	3	14	2 1/4"	79	0.216	0.206
2"	38	3	18	2 3/4"	96	0.340	0.360
2 1/2"	44	3	18	3 1/2"	119	0.580	0.580
3"	51	5	18	4"	134	0.760	0.777
4"	61	5	18	5"	163	1.280	1.150

## ST23

Stub Flanges



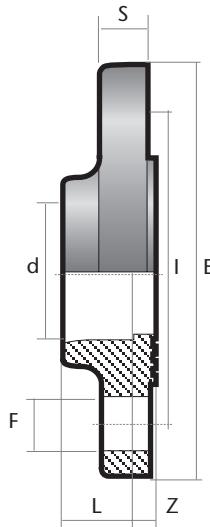
d	L	Z	S	E	E1	Kg. ABS	Kg. PVC
1/2"	16	3	6	27	34	0.008	0.010
3/4"	19	3	7	33	41	0.011	0.014
1"	22	3	7	41	50	0.017	0.023
1 1/4"	26	3	8	50	61	0.036	0.048
1 1/2"	31	3	8	61	73	0.054	0.068
2"	38	3	9	76	90	0.093	0.128
2 1/2"	44	3	10	90	106	0.120	0.160
3"	51	5	11	108	125	0.204	0.272
4"	61	5	12	131	150	0.271	0.361
5"	77	7	13	163	187	0.564	0.750
6"	88	7	14	193	217	0.821	1.155
8"	119	7	19	248	274	1.573	2.092

Dimensions in mm

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## FF33

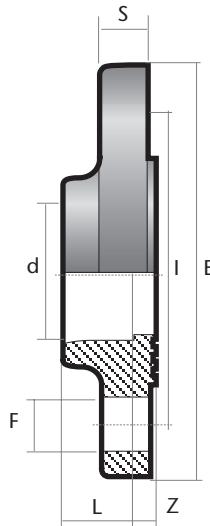
Full Faced Flanges PN16



d	L	Z	E	I	f	Holes	Kg. ABS	Kg. PVC
1/2"	16	4.5	95	65	14	4	0.070	0.078
3/4"	19	4.5	105	75	14	4	0.105	0.105
1"	22	4.5	115	85	14	4	0.145	0.143
1 1/4"	26	4.5	142	100	18	4	0.176	0.220
1 1/2"	31	4.5	152	110	18	4	0.224	0.280
2"	38	4.5	165	125	18	4	0.304	0.380
2 1/2"	44	6	185	145	18	4	0.404	0.505
3"	51	7	200	160	18	8	0.548	0.685
4"	61	8	220	180	18	8	0.752	0.940

## FF30

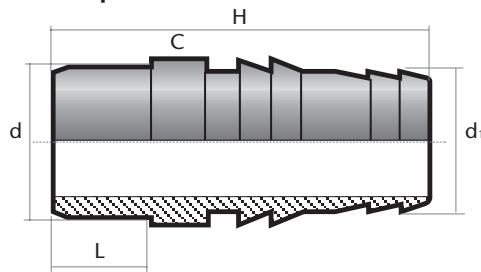
Full Faced Flanges Table E



d	L	Z	E	I	f	Holes	Kg. ABS	Kg. PVC
1/2"	16	4.5	95	67	14	4	0.070	0.078
3/4"	19	4.5	105	73	14	4	0.105	0.105
1"	22	4.5	115	83	14	4	0.145	0.143
1 1/4"	26	4.5	142	88	14	4	0.176	0.220
1 1/2"	31	4.5	152	98	18	4	0.224	0.280
2"	38	4.5	165	115	18	4	0.304	0.380
2 1/2"	44	6	185	127	18	4	0.404	0.505
3"	51	7	200	146	18	4	0.548	0.685
4"	61	8	220	178	18	8	0.752	0.940

## HN63

Hose Adaptors



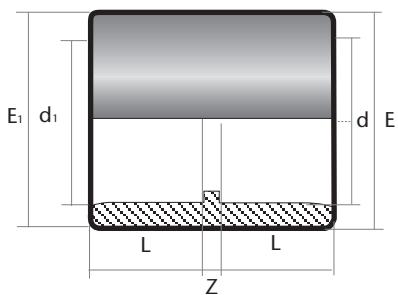
d	d1	L	H	C	Kg. ABS	Kg. PVC
1/2"	20	16	70	24	0.017	0.023
3/4"	25	19	79	27	0.022	0.030
1"	32	22	83	36	0.037	0.050
1 1/4"	40	26	96	46	0.055	0.073
1 1/2"	50	31	108	55	0.103	0.137
2"	60	38	130	65	0.156	0.208

Dimensions in mm

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## SO14

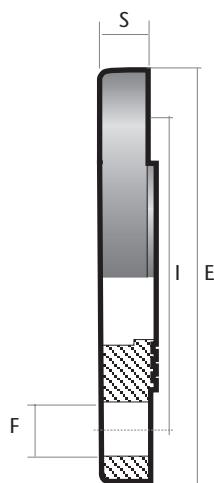
Sockets - Metric/Imperial



$d \times d_1$	$L_1$	$Z$	$E$	$E_1$	Kg. ABS	Kg. PVC
20mm x 1/2"	16	3	28	28	0.012	0.015
25mm x 3/4"	19	3	33	33	0.019	0.023
32mm x 1"	22	3	41	41	0.028	0.036
40mm x 1 1/4"	26	3	50	50	0.046	0.060
50mm x 1 1/2"	31	3	60.5	60.5	0.063	0.085
63mm x 2"	38	3	75	75	0.103	0.145
90mm x 3"	51	5	106	106	0.260	0.353
110mm x 4"	61	6	129	129	0.451	0.605

## BF00

Blank Flanges PN16



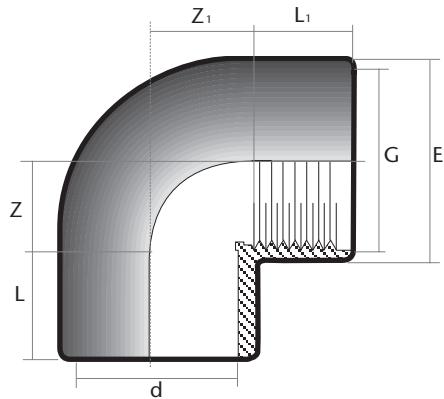
DN	E	S	I	F	Kg. PVC
1/2"	95	11	65	14	0.075
3/4"	105	12	75	14	0.100
1"	115	14	85	14	0.137
1 1/4"	142	15	100	18	0.225
1 1/2"	152	16	110	18	0.280
2"	165	18	125	18	0.355
2 1/2"	185	19	145	18	0.488
3"	200	20	160	18	0.640
4"	220	22	180	18	0.825
6"	283	28	240	22	1.589

Dimensions in mm

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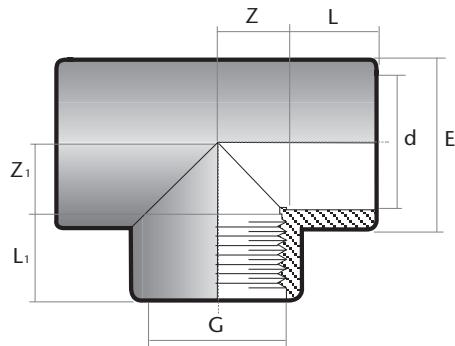
## EL32

90° Elbows



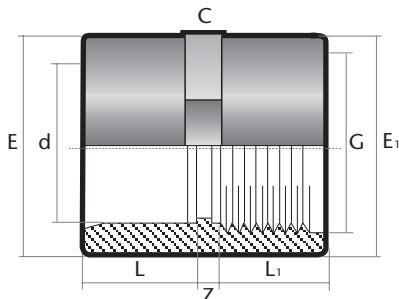
## TE32

90° Tees



## SO32

Sockets



dxG	L	L1	Z	Z1	E	Kg. ABS	Kg. PVC
1/2" x 1/2"	16	15	11	12	26.5	0.011	0.015
3/4" x 3/4"	19	16.3	14	16	32.5	0.020	0.027
1" x 1"	22	19.1	17	19.7	41	0.036	0.048
1 1/4" x 1 1/4"	26	21.4	23	24.9	50	0.054	0.072
1 1/2" x 1 1/2"	31	21.4	28	30.6	60	0.122	0.162
2" x 2"	38	25.7	34	37.6	75	0.233	0.310
2 1/2" x 2 1/2"	44	30.2	40	46.3	89	0.308	0.410
3" x 3"	51	33.3	48	53.8	106	0.538	0.715
4" x 4"	61	39.3	58	65.7	129	0.810	1.078

dxG	L	L1	Z	Z1	E	Kg. ABS	Kg. PVC
1/2" x 1/2"	16	15	11	12	27.5	0.019	0.025
3/4" x 3/4"	19	16.3	14	16	33.5	0.029	0.038
1" x 1"	22	19.1	17	19.7	42	0.052	0.069
1 1/4" x 1 1/4"	26	21.4	23	19.9	51	0.080	0.106
1 1/2" x 1 1/2"	31	21.4	28	24.0	61	0.160	0.213
2" x 2"	38	25.7	34	30.0	75	0.286	0.380
2 1/2" x 2 1/2"	44	30.2	40	38.0	89	0.380	0.505
3" x 3"	51	33.3	48	44.0	106	0.663	0.882
4" x 4"	61	39.3	58	57.0	129	1.094	1.455

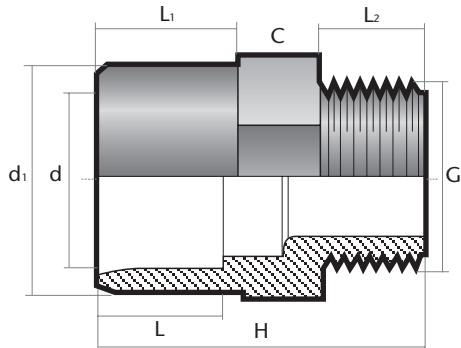
dxG	L	L1	Z	E	E1	C	Kg. ABS	Kg. PVC
1/2" x 1/2"	16	15	4	28	28	30	0.011	0.015
3/4" x 3/4"	19	16.3	4	34	34	34	0.016	0.022
1" x 1"	22	19.1	5	42	42	42	0.024	0.033
1 1/4" x 1 1/4"	26	21.4	5	50	50	55	0.047	0.063
1 1/2" x 1 1/2"	31	21.4	5	61	61.0	65	0.075	0.100
2" x 2"	38	25.7	5	75	75.0	75	0.118	0.158
2 1/2" x 2 1/2"	44	30.2	5	89	89.0	90	0.161	0.215
3" x 3"	51	33.3	8	106	106	110	0.261	0.347
4" x 4"	61	39.3	8	129	129	129	0.382	0.508

Dimensions in mm

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## AD32

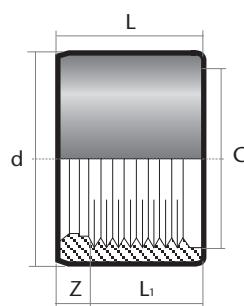
Male Threaded Adaptors



d-d1xG	L	L1	L2	H	C	Kg. ABS	Kg. PVC
1/2"- 3/4"x 1/2"	16	19	15	46	27	0.011	0.015
1/2"- 3/4"x 3/4"	16	19	16.3	47	30	0.012	0.016
3/4"-1"x 3/4"	19	22	16.3	50	36	0.020	0.027
3/4"-1"x 1"	19	22	19.1	53	36	0.022	0.029
1"-1 1/4"x 1"	22	26	19.1	57	42	0.032	0.043
1"-1 1/4"x 1 1/4"	22	26	21.4	60	46	0.039	0.052
1 1/4"-1 1/2"x 1 1/4"	26	31	21.4	66.5	55	0.046	0.061
1 1/4"-1 1/2"x 1 1/2"	26	31	21.4	66.5	55	0.048	0.064
1 1/2"- 2"x 1 1/2"	31	38	21.4	74	65	0.083	0.110
1 1/2"- 2"x 2"	31	38	25.7	78	65	0.093	0.124
2"- 2 1/2"x 2"	38	44	25.7	84	75	0.114	0.152
2"- 2 1/2"x 2 1/2"	38	44	30.2	91	80	0.135	0.180
2 1/2"-3"x 2 1/2"	44	51	30.2	99	95	0.195	0.260
2 1/2"-3"x 3"	44	51	33.3	102	95	0.206	0.275
3"- 4"x 3"	53	61	33.3	113	119	0.434	0.578
3"- 4"x 4"	51	61	39.3	118	115	0.438	0.584
4"- 5"x 4"	61	69	39.3	120	130	0.320	0.426

## RB30

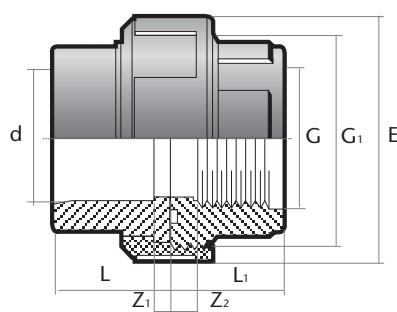
Reducing Bushes



dxG	L	L1	Z	Kg. ABS	Kg. PVC
1/2" x 3/8"	16	13.5	2.5	0.002	0.004
3/4" x 1/2"	19	15	4	0.006	0.008
1" x 3/4"	22	16.3	5.7	0.009	0.012
1 1/4" x 1"	26	19.1	6.9	0.016	0.022
1 1/2" x 1 1/4"	31	21.4	9.6	0.034	0.045
2" x 1 1/2"	38	21.4	16.6	0.051	0.068
2 1/2" x 2"	44	25.7	18.3	0.072	0.096
3" x 2 1/2"	51	30.2	20.8	0.114	0.152
4" x 3"	61	33.3	27.7	0.212	0.282

## UN72

Socket Unions



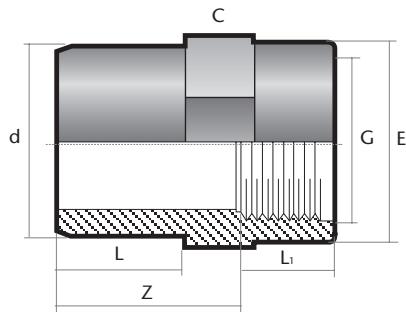
dxG	L	L1	Z1	Z2	G1	E	Kg. ABS	Kg. PVC
1/2" x 1/2"	16	15	3	11	1"	42	0.031	0.041
3/4" x 3/4"	19	16.3	3	12.7	1 1/4"	52	0.051	0.068
1" x 1"	22	19.1	3	12.9	1 1/2"	59	0.070	0.093
1 1/4" x 1 1/4"	26	21.4	3	16.6	2"	72	0.109	0.145
1 1/2" x 1 1/2"	31	21.4	3	23.6	2 1/4"	79	0.176	0.234
2" x 2"	38	25.7	3	30.3	2 3/4"	96	0.293	0.390

Dimensions in mm

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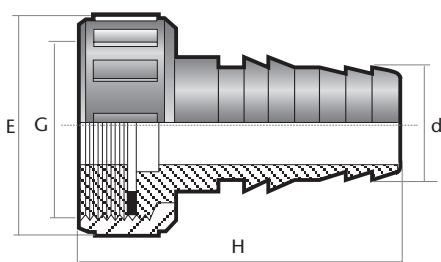
## AD42

Female Threaded Adaptors



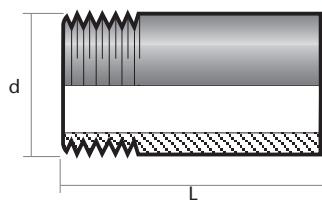
## HN64

Hose Adaptors



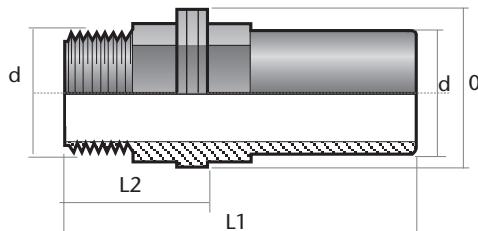
## BN12

Barrel Nipples



## TC93

Tank Connectors



dxG	L	L1	E	Z	C	Kg. ABS	Kg. PVC
1/2" x 1/2"	16	15	28	24	30	0.019	0.023
3/4" x 3/4"	19	16.3	34	27	36	0.022	0.028
1" x 1"	22	19.1	42	30	46	0.036	0.046
1 1/4" x 1 1/4"	26	21.4	51	36	55	0.052	0.070
1 1/2" x 1 1/2"	31	21.4	58	41	60	0.057	0.075
2" x 2"	38	25.7	75	48	75	0.100	0.130
2 1/2" x 2 1/2"	44	30.2	89	58	90	0.190	0.225
3" x 3"	51	33.3	103	66	105	0.255	0.330
4" x 4"	61	39.3	130	76	130	0.410	0.510

G	d	H	E	Kg. ABS	Kg. PVC
3/4"	16	54	34	0.022	0.023
1"	20	59	42	0.031	0.032
1 1/4"	25	63	52	0.047	0.049
1 1/2"	30	68	59	0.066	0.068
2"	40	77	72	0.105	0.110
2 1/2"	50	80	79	0.140	0.145

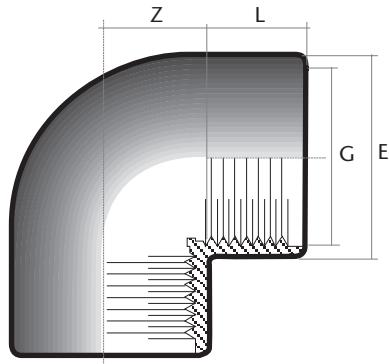
d	L	Kg. ABS	Kg. PVC
3/8"	42	0.011	0.012
1/2"	49	0.013	0.014
3/4"	55	0.02	0.025
1"	62	0.03	0.038
1 1/4"	72	0.051	0.052
1 1/2"	87	0.083	0.080
2"	87	0.119	0.115
2 1/2"	105	0.205	0.197
3"	127	0.308	0.300
4"	150	0.485	0.560

d	L	L1	O	Kg. ABS	Kg. PVC
1/2"	76	42	28	0.03	0.040
3/4"	76	42	33	0.04	0.054
1"	101	55	46	0.083	0.110
1 1/4"	120	70	50	0.135	0.170
1 1/2"	127	73	60	0.174	0.230
2"	152	85	80	0.295	0.395
2 1/2"	165	90	90	0.385	0.510
3"	202	112	112	0.578	0.770
4"	230	130	135	1.15	1.510

Dimensions in mm

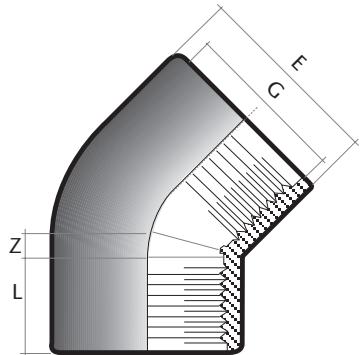
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## EL51 90° Elbows



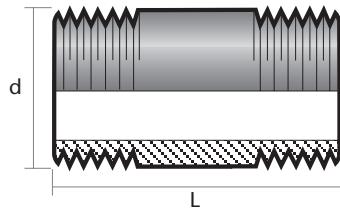
G	L	Z	E	Kg. ABS	Kg. PVC
3/8"	11.4	11.6	23.5	0.010	0.015
1/2"	15.0	12.0	26.5	0.011	0.022
3/4"	16.3	16.7	32.5	0.020	0.037
1"	19.1	19.9	41	0.036	0.060
1 1/4"	21.4	27.6	50	0.054	0.095
1 1/2"	21.4	37.6	60	0.122	0.180
2"	25.7	46.3	75	0.233	0.340
2 1/2"	30.2	53.8	89	0.308	0.436
3"	33.3	65.7	106	0.538	0.770
4"	39.3	79.7	129	0.810	1.020

## EY51 45° Elbows



G	L	Z	E	Kg. ABS	Kg. PVC
3/8"	11.4	8.1	23.5	0.009	0.010
1/2"	15.0	6.5	28	0.014	0.018
3/4"	16.3	8.7	34	0.022	0.030
1"	19.1	10.9	42	0.039	0.050
1 1/4"	21.4	14.6	51	0.058	0.080
1 1/2"	21.4	21.6	61	0.110	0.145
2"	25.7	27.3	75	0.191	0.254
2 1/2"	30.2	31.8	89	0.254	0.360
3"	33.3	38.7	106	0.446	0.620
4"	39.3	46.7	128	0.665	0.830

## BN11 Barrel Nipples

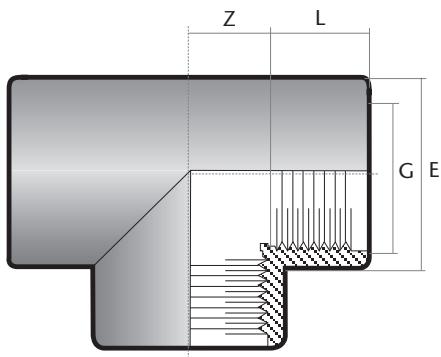


d	L	Kg. ABS	Kg. PVC
3/8"	42	0.011	0.012
1/2"	49	0.013	0.014
3/4"	55	0.02	0.025
1"	62	0.03	0.038
1 1/4"	72	0.051	0.052
1 1/2"	87	0.083	0.080
2"	87	0.119	0.115
2 1/2"	105	0.205	0.197
3"	127	0.308	0.300
4"	150	0.485	0.560

Dimensions in mm

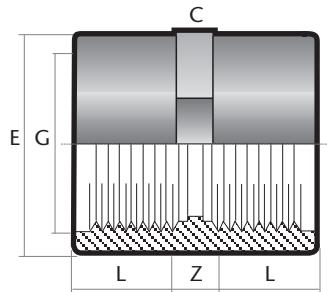
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## TE41 Equal Tees



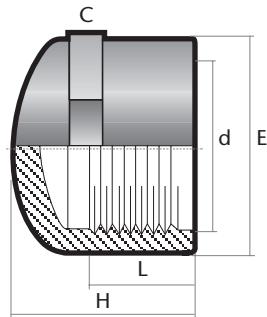
G	L	Z	E	Kg. ABS	Kg. PVC
3/8"	11.4	11.6	23.5	0.014	0.018
1/2"	15.0	12.0	27	0.019	0.030
3/4"	16.3	16.7	33.5	0.029	0.050
1"	19.1	19.9	42	0.052	0.080
1 1/4"	21.4	27.6	51	0.080	0.120
1 1/2"	21.4	37.6	61	0.160	0.240
2"	25.7	46.3	75	0.286	0.425
2 1/2"	30.2	53.8	89	0.380	0.560
3"	33.3	65.7	106	0.663	1.000
4"	39.3	79.7	129	1.094	1.310

## SO11 Sockets



G	L	Z	E	C	Kg. ABS	Kg. PVC
3/8"	11.4	6	23.5	24	0.008	0.008
1/2"	15.0	7	28	30	0.011	0.020
3/4"	16.3	7	34	36	0.016	0.025
1"	19.1	8	42	46	0.024	0.045
1 1/4"	21.4	8	50.5	55	0.047	0.065
1 1/2"	21.4	8	57.5	60	0.075	0.070
2"	25.7	8	71.5	75	0.118	0.125
2 1/2"	30.2	9	88	90	0.161	0.200
3"	33.3	10	102	105	0.261	0.276
4"	39.3	11	129	130	0.382	0.440

## CA71 Caps



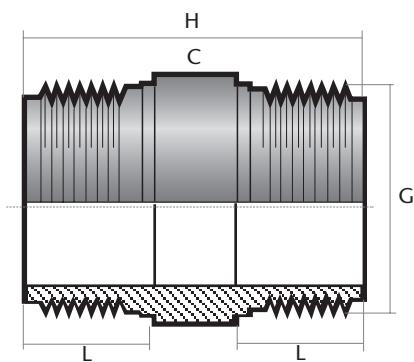
G	L	H	E	C	Kg. ABS	Kg. PVC
3/8"	11.4	22	23	24	0.007	0.007
1/2"	15.0	26	28	30	0.012	0.015
3/4"	16.3	28	34	36	0.017	0.023
1"	19.1	32	42	46	0.030	0.040
1 1/4"	21.4	35	51	55	0.044	0.056
1 1/2"	21.4	35	58	60	0.052	0.067
2"	25.7	39	72	75	0.093	0.113
2 1/2"	30.2	52	89	90	0.144	0.190
3"	33.3	56	103	105	0.210	0.270
4"	39.3	64	130	130	0.318	0.420

Dimensions in mm

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## NI61

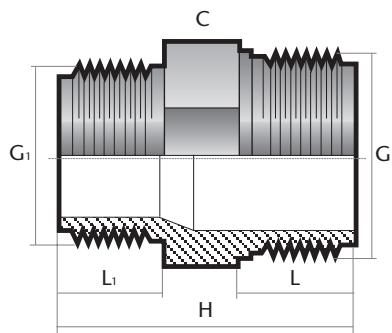
Hexagon Nipples



G	L	H	C	Kg. ABS	Kg. PVC
3/8"	11.4	31.7	18.9	0.005	0.006
1/2"	15.0	42	12	0.009	0.011
3/4"	16.3	44	11.4	0.015	0.018
1"	19.1	50	11.8	0.023	0.028
1 1/4"	21.4	58	15.2	0.038	0.047
1 1/2"	21.4	58	15.2	0.041	0.061
2"	25.7	66	14.6	0.083	0.098
2 1/2"	30.2	78	17.6	0.120	0.144
3"	33.3	85	18.4	0.176	0.230
4"	39.3	96	17.4	0.270	0.345

## NR61

Reducing Nipples



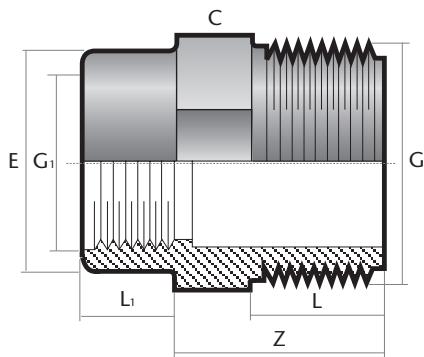
G x G1	L	L1	H	C	Kg. ABS	Kg. PVC
1/2" x 3/8"	15.0	11.4	38	24	0.007	0.010
3/4" x 1/2"	16.3	15.0	43	30	0.012	0.017
1" x 3/4"	19.1	16.3	47	36	0.020	0.025
1 1/4" x 1"	21.4	19.1	56	46	0.035	0.042
1 1/2" x 1 1/4"	21.4	21.4	58	50	0.040	0.048
2" x 1 1/2"	25.7	21.4	62	65	0.070	0.080
2 1/2" x 2"	30.2	25.7	73	80	0.110	0.138
3" x 2 1/2"	33.3	30.2	82	95	0.165	0.208
4" x 3"	39.3	33.3	90	120	0.270	0.340

Dimensions in mm

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## RE61

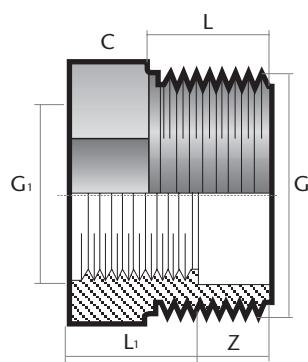
Reducing Bushes Long Pattern



G x G1	L	L1	Z	E	C	Kg. ABS	Kg. PVC
1/2" x 3/8"	15.0	11.4	24	23	24	0.009	0.012
3/4" x 3/8"	16.3	11.4	25	23	30	0.012	0.016
3/4" x 1/2"	16.3	15.0	26	28	30	0.016	0.020
1" x 3/8"	19.1	11.4	28	23	36	0.019	0.025
1" x 1/2"	19.1	15.0	29	28	36	0.020	0.026
1" x 3/4"	19.1	16.3	30	34	36	0.020	0.026
1 1/4" x 1/2"	21.4	15	33	28	46	0.031	0.042
1 1/4" x 3/4"	21.4	16.3	34	34	46	0.032	0.043
1 1/4" x 1"	21.4	19.1	33	42	46	0.034	0.046
1 1/2" x 3/4"	21.4	16.3	34	34	50	0.045	0.060
1 1/2" x 1"	21.4	19.1	34	42	50	0.043	0.055
1 1/2" x 1 1/4"	21.4	21.4	34	51	55	0.045	0.060
2" x 1"	25.7	19.1	37	42	65	0.072	0.097
2" x 1 1/4"	25.7	21.4	37	51	65	0.071	0.094
2" x 1 1/2"	25.7	21.4	37	58	65	0.072	0.096
2 1/2" x 1 1/4"	30.2	21.4	43	51	80	0.106	0.140
2 1/2" x 1 1/2"	30.2	21.4	43	58	80	0.105	0.138
2 1/2" x 2"	30.2	25.7	43	72	80	0.107	0.142
3" x 1 1/2"	33.3	21.4	47	58	95	0.147	0.200
3" x 2"	33.3	25.7	47	72	95	0.155	0.210
3" x 2 1/2"	33.3	30.2	47	89	95	0.161	0.215
4" x 2"	39.3	25.7	53	72	120	0.250	0.325
4" x 2 1/2"	39.3	30.2	53	89	120	0.265	0.330
4" x 3"	39.3	33.3	53	103	120	0.270	0.350

## RB91

Reducing Bushes Short Pattern



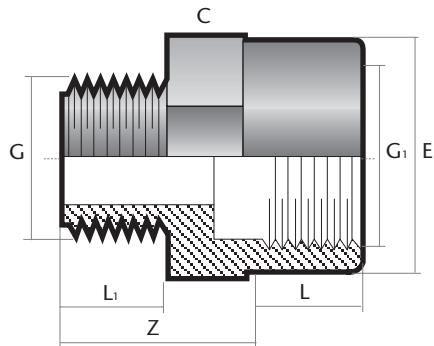
G x G1	L	L1	Z	C	Kg. ABS	Kg. PVC
3/4" x 1/2"	16.3	15.0	13.3	30	0.010	0.013
1" x 3/4"	19.1	16.3	14.8	36	0.015	0.020
1 1/4" x 1"	21.4	19.1	16.3	46	0.027	0.035
1 1/2" x 1 1/4"	21.4	21.4	14.0	50	0.030	0.037
2" x 1 1/2"	25.7	21.4	18.3	65	0.055	0.072
2 1/2" x 2"	30.2	25.7	20.5	80	0.100	0.135
3" x 2 1/2"	33.3	30.2	20.1	95	0.117	0.160
4" x 3"	39.3	33.3	24.0	120	0.280	0.360

Dimensions in mm

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## RE21

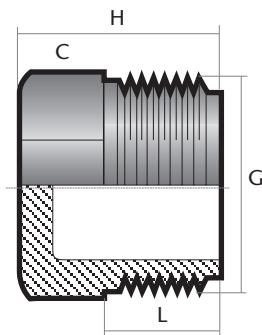
Reducing Pieces



<b>G x G1</b>	<b>L</b>	<b>L1</b>	<b>Z</b>	<b>C</b>	<b>E</b>	<b>Kg. ABS</b>	<b>Kg. PVC</b>
$3/8'' \times 1/2''$	11.4	15.0	22	30	28	0.008	0.010
$1/2'' \times 3/4''$	15.0	16.3	24	36	34	0.013	0.017
$3/4'' \times 1''$	16.3	19.1	26	46	42	0.019	0.025
$1'' \times 1 1/4''$	19.1	21.4	30	55	51	0.031	0.042
$1 1/4'' \times 1 1/2''$	21.4	21.4	33	60	58	0.036	0.048
$1 1/2'' \times 2''$	21.4	25.7	34	75	72	0.065	0.080
$2'' \times 2 1/2''$	25.7	30.2	38	90	89	0.105	0.138
$2 1/2'' \times 3''$	30.2	33.3	44	105	103	0.153	0.208
$3'' \times 4''$	33.3	39.3	48	130	130	0.268	0.340

## PL71

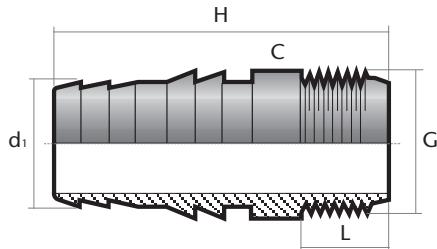
Plugs



<b>G</b>	<b>L</b>	<b>H</b>	<b>C</b>	<b>Kg. ABS</b>	<b>Kg. PVC</b>
$3/8''$	11.4	23	19	0.005	0.008
$1/2''$	15.0	29	24	0.009	0.010
$3/4''$	16.3	30	30	0.013	0.015
$1''$	19.1	33	36	0.019	0.025
$1 1/4''$	21.4	39	46	0.034	0.040
$1 1/2''$	21.4	39	55	0.036	0.045
$2''$	25.7	43	65	0.066	0.080
$2 1/2''$	30.2	53	80	0.108	0.137
$3''$	33.3	58	95	0.163	0.210
$4''$	39.3	65	120	0.255	0.330

## HN61

Hose Adaptors



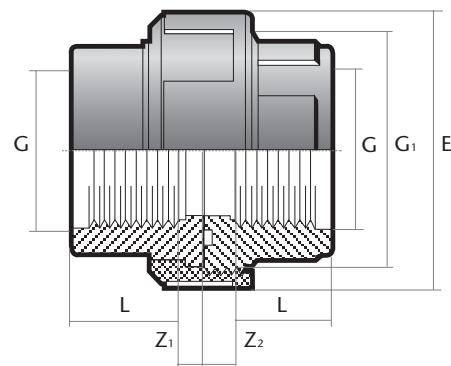
<b>G</b>	<b>d1</b>	<b>L</b>	<b>H</b>	<b>C</b>	<b>Kg. ABS</b>	<b>Kg. PVC</b>
$1/4''$	12	11	52	19	0.008	0.008
$3/8''$	16	11.4	64	19	0.015	0.015
$1/2''$	20	15.0	70	24	0.020	0.020
$3/4''$	25	16.3	76	30	0.030	0.030
$1''$	32	19.1	80	36	0.050	0.050
$1 1/4''$	40	21.4	92	46	0.070	0.070
$1 1/2''$	50	21.4	99	55	0.118	0.118
$2''$	60	25.7	118	65	0.190	0.190

Dimensions in mm

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## UN81

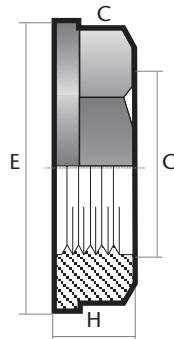
Socket Unions



G	L	Z1	Z2	G1	E	Kg. ABS	Kg. PVC
3/8"	11.4	5.6	12.6	3/4"	67	0.029	0.032
1/2"	15.0	4	11.0	1"	42	0.031	0.045
3/4"	16.3	5.7	12.7	1 1/4"	52	0.051	0.072
1"	19.1	5.9	12.9	1 1/2"	59	0.070	0.100
1 1/4"	21.4	7.6	16.6	2"	72	0.109	0.160
1 1/2"	21.4	12.6	23.6	2 1/4"	79	0.176	0.220
2"	25.7	15.3	30.3	2 3/4"	96	0.293	0.400
2 1/2"	30.2	16.8	31.8	3 1/2"	119	0.470	0.635
3"	33.3	22.7	35.7	4"	134	0.610	0.850
4"	39.3	26.7	39.7	5"	163	0.970	1.260

## NU91

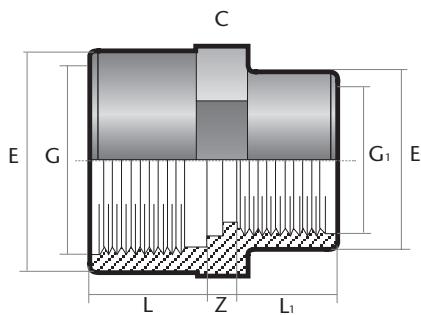
Back Nuts



G	E	H	C	Kg. ABS	Kg. PVC
1/2"	38	13	29	0.009	0.013
3/4"	43	14	34	0.010	0.016
1"	56	16	46	0.021	0.030
1 1/4"	65	18	50	0.024	0.035
1 1/2"	72	19	60	0.036	0.045
2"	94	21	80	0.070	0.090
2 1/2"	115	24	94	0.074	0.180
3"	130	27	108	0.105	0.230
4"	162	30	135	0.150	0.340

## RS11

Reducing Sockets



G x G1	L	L1	Z	E	E1	C	Kg. ABS	Kg. PVC
1/2" x 3/8"	15.0	11.4	6	28	23	24	0.014	0.018
3/4" x 1/2"	16.3	15.0	7	34	28	30	0.020	0.024
1" x 3/4"	19.1	16.3	7	42	34	36	0.034	0.041
1 1/4" x 1"	21.4	19.1	8	51	42	46	0.048	0.062
1 1/2" x	21.4	21.4	8	58	51	55	0.055	0.072
1 1/4"	25.7	21.4	8	72	58	60	0.092	0.116
2" x 1 1/2"	30.2	25.7	8	89	72	75	0.150	0.128
2 1/2" x 2"	33.3	30.2	9	103	89	105	0.206	0.287
3" x 2 1/2"	39.3	33.3	10	130	103	130	0.324	0.434

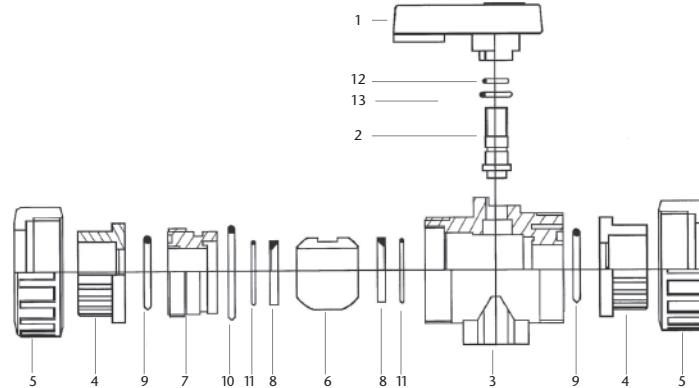
Dimensions in mm

This data sheet is designed as a guide and should not be regarded as wholly accurate in every detail. We reserve the right to amend the specification of any product without notice.

## BVI13

### Part No. Components

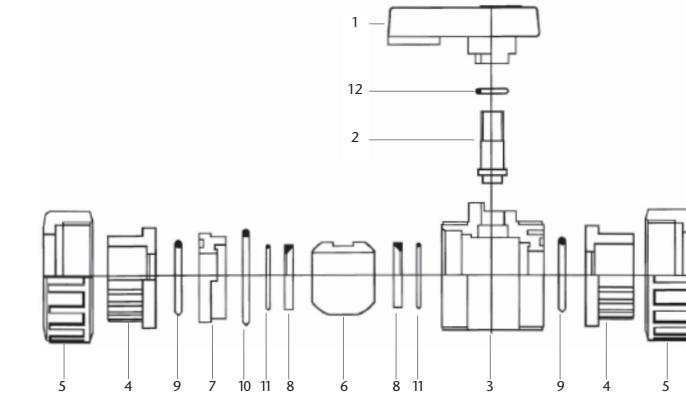
1	Handle
2	Stem
3	Body
4	Union End
5	Union Nut
6	Ball
7	Sealing Bush
8	Ball Seat
9	Union O-ring
10	O-ring sealing bush
11	O-ring ball seat
12	O-ring stem
13	Stem O-ring inner



## BVD13

### Part No. Components

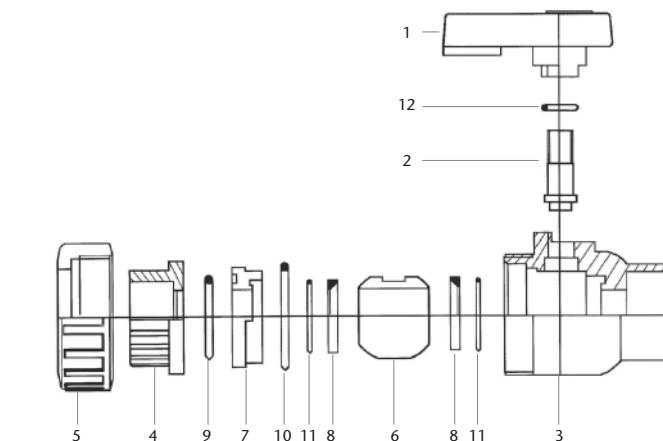
1	Handle
2	Stem
3	Body
4	Union End
5	Union Nut
6	Ball
7	Sealing Bush
8	Ball Seat
9	Union O-ring
10	O-ring sealing bush
11	O-ring ball seat
12	O-ring stem



## BVS13

### Part No. Components

1	Handle
2	Stem
3	Body
4	Union End
5	Union Nut
6	Ball
7	Support
8	Ball Seat
9	Union O-ring
10	O-ring sealing bush
11	O-ring ball seat
12	O-ring stem

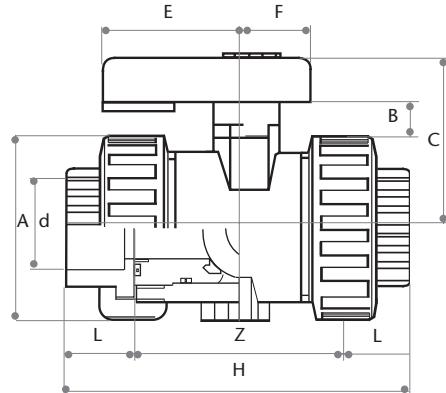


Dimensions in mm

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## BVI13

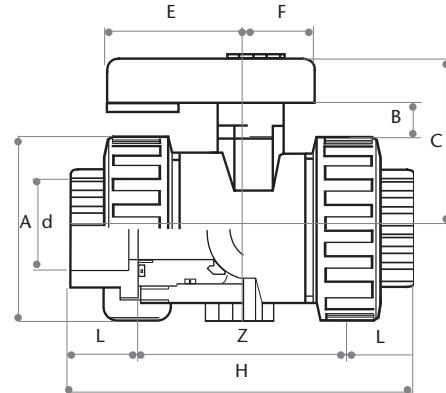
Industrial Double Union Ball Valves with plain ends for solvent welding EPDM Seals



d	L	Z	H	A	B	C	E	F	Kg. ABS	Kg. PVC
3/8"	14	62	101	50	10	48	39	19	0.145	0.180
1/2"	16	62	101	50	10	48	39	19	0.135	0.170
3/4"	19	74	120	60	11	54	47	22	0.212	0.265
1"	22	77	130	68	13	62	55	25	0.301	0.370
1 1/4"	26	87	149	80	18	75	60	30	0.436	0.545
1 1/2"	31	93	165	96	20	87	68	35	0.708	0.885
2"	38	113	199	116	20	101	80	40	1.152	1.440
2 1/2"	44	116	217	145	25	123	90	45	1.840	2.300
3"	51	130	250	166	28	138	100	50	2.924	3.650
4"	61	150	292	210	28	160	120	60	4.800	6.000

## BVI33

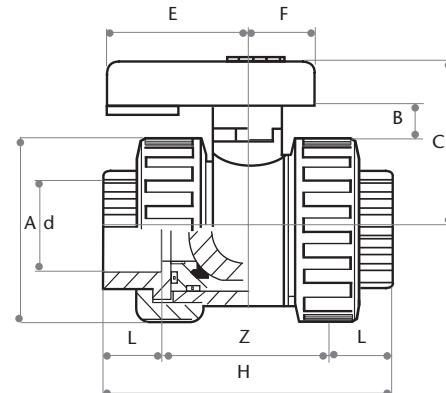
Industrial Double Union Ball Valves with plain ends for solvent welding FPM Seals



d	L	Z	H	A	B	C	E	F	Kg. ABS	Kg. PVC
3/8"	14	62	101	50	10	48	39	19	0.145	0.180
1/2"	16	62	101	50	10	48	39	19	0.135	0.170
3/4"	19	74	120	60	11	54	47	22	0.212	0.265
1"	22	77	130	68	13	62	55	25	0.301	0.370
1 1/4"	26	87	149	80	18	75	60	30	0.436	0.545
1 1/2"	31	93	165	96	20	87	68	35	0.708	0.885
2"	38	113	199	116	20	101	80	40	1.152	1.444
2 1/2"	44	116	217	145	25	123	90	45	1.840	2.300
3"	51	130	250	166	28	138	100	50	2.924	3.650
4"	61	150	292	210	28	160	120	60	4.800	6.000

## BVD13

Double Union Ball Valves with plain ends for solvent welding EPDM Seals



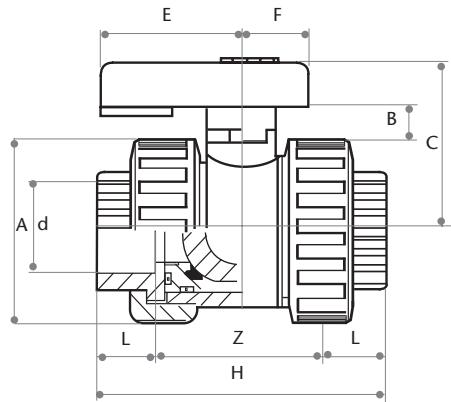
d	L	Z	H	A	B	C	E	F	Kg. PVC
3/8"	14	52	80	50	10	48	39	19	0.140
1/2"	16	48	80	50	10	48	39	19	0.130
3/4"	19	56	94	60	11	54	47	22	0.200
1"	22	64	108	68	13	62	55	25	0.295
1 1/4"	26	72	124	80	18	75	60	30	0.440
1 1/2"	31	83	145	96	20	87	68	35	0.720
2"	38	98	174	116	20	101	80	40	1.190
2 1/2"	44	129	217	145	25	123	90	45	2.210
3"	51	148	250	166	28	138	100	50	3.520
4"	61	170	292	210	28	160	120	60	5.790

Dimensions in mm

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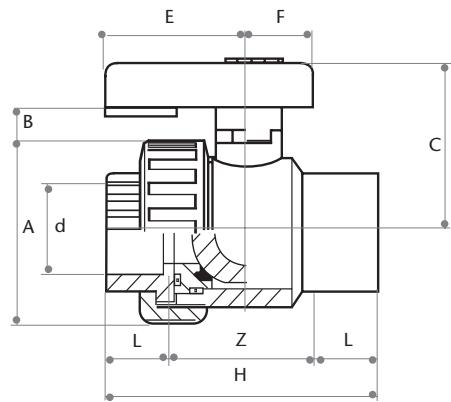
## BVD11

Double Union Ball Valves with female threaded BSP ends EPDM Seals



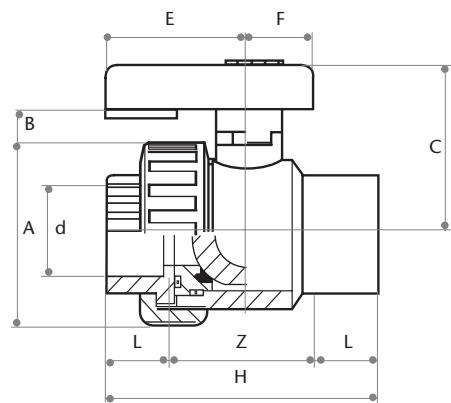
## BVS13

Single Union Ball Valves with plain ends for solvent welding EPDM Seals



## BVS11

Single Union Ball Valves with female threaded BSP ends EPDM Seals



d	L	Z	H	A	B	C	E	F	Kg. PVC
3/8"	14	52	80	50	10	48	39	19	0.140
1/2"	16	48	80	50	10	48	39	19	0.130
3/4"	19	56	94	60	11	54	47	22	0.200
1"	22	64	108	68	13	62	55	25	0.295
1 1/4"	26	72	124	80	18	75	60	30	0.440
1 1/2"	31	83	145	96	20	87	68	35	0.720
2"	38	98	174	116	20	101	80	40	1.190
2 1/2"	44	129	217	145	25	123	90	45	2.210
3"	51	148	250	166	28	138	100	50	3.520
4"	61	170	292	210	28	160	120	60	5.290

d	L	Z	H	A	B	C	E	F	Kg. PVC
3/8"	14	47	75	50	10	48	39	19	0.100
1/2"	16	46	78	50	10	48	39	19	0.110
3/4"	19	52	90	60	11	54	47	22	0.170
1"	22	59	103	68	13	62	55	25	0.250
1 1/4"	26	68	120	80	18	75	60	30	0.370
1 1/2"	31	75	137	96	20	87	68	35	0.560
2"	38	92	168	116	20	101	80	40	0.980
2 1/2"	44	124	212	145	25	123	90	45	1.825
3"	51	147	249	166	28	138	100	50	2.900
4"	61	159	281	210	28	160	120	60	4.790

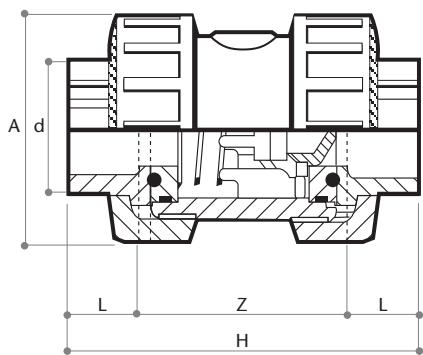
d	L	Z	H	A	B	C	E	F	Kg. PVC
3/8"	14	47	75	50	10	48	39	19	0.100
1/2"	16	46	78	50	10	48	39	19	0.110
3/4"	19	52	90	60	11	54	47	22	0.170
1"	22	59	103	68	13	62	55	25	0.250
1 1/4"	26	68	120	80	18	75	60	30	0.370
1 1/2"	31	75	137	96	20	87	68	35	0.560
2"	38	92	168	116	20	101	80	40	0.980
2 1/2"	44	124	212	145	25	123	90	45	1.825
3"	51	147	249	166	28	138	100	50	2.900
4"	61	159	281	210	28	160	120	60	4.790

Dimensions in mm

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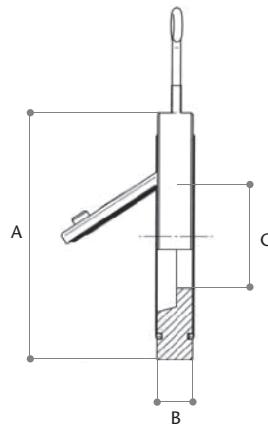
## CVD13

Double Union Check Valves with plain ends for solvent welding EPDM Seals



## CVW50

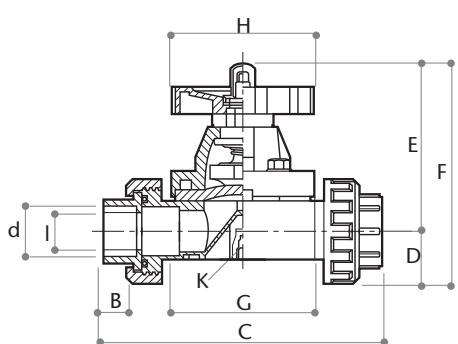
Wafer Plate Check Valves EPDM Seals



d	DN	L	Z	H	A	PN	Kg. ABS	Kg. PVC
1/2"	15	16	48	80	50	16	0.087	0.110
3/4"	20	19	53	91	60	16	0.135	0.168
1"	25	22	58	102	68	16	0.196	0.246
1 1/4"	32	26	68	120	80	16	0.290	0.360
1 1/2"	40	31	78	140	96	16	0.476	0.595
2"	50	38	93	169	116	16	0.777	0.970

## DVD13

Diaphragm valves with double union ends for solvent weld EPDM Diaphragm



Size	A	B	C	Kg. PVC
1 1/4"	85	15	18	0.184
1 1/2"	95	16	22	0.218
2"	109	20	32	0.310
2 1/2"	130	20	40	0.406
3"	144	20	53	0.468
4"	164	22	70	0.660
5"	192	22	93	0.850
6"	220	26	113	1.252
8"	276	35	152	2.230
10"	330	40	189	3.380
12"	380	45	226	4.865

\*WAFER CHECK VALVES ARE SUPPLIED WITHOUT FLANGES

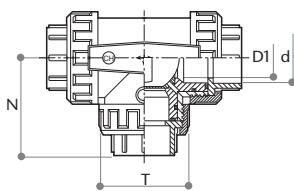
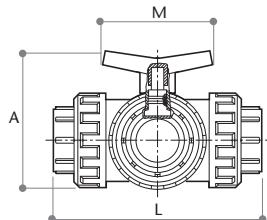
d	B	C	D	E	F	G	H	I	K	Kg. PVC
3/8"	17	156	24	93	117	73	82	10	M-6	0.428
1/2"	17	156	24	93	117	73	82	15	M-6	0.426
3/4"	19	168	27	98	125	83	82	20	M-6	0.535
1"	22	184	33	107	140	93	94	25	M-6	0.760
1 1/4"	27	205	39	113	152	102	94	32	M-8	1.015
1 1/2"	35	228	50	121	171	115	117	40	M-8	1.594
2"	32	245	47	123	170	122	117	50	M-8	1.929

Dimensions in mm

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## BVL11

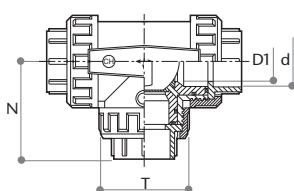
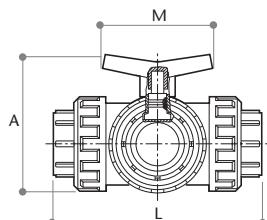
3 way ball valves 'L' port with double union BSP ends EPDM seals



d	D1	L	A	M	T	N	Kg. PVC
3/8"	15	112	80	85	45	57	0.229
1/2"	15	112	80	85	45	57	0.220
3/4"	20	123	87	85	55	62	0.303
1"	25	147	104	100	66	74	0.488
1 1/4"	32	169	115	100	79	82	0.746
1 1/2"	40	209	145	127	102	104	1.475
2"	50	230	160	127	111	117	1.885

## BVT11

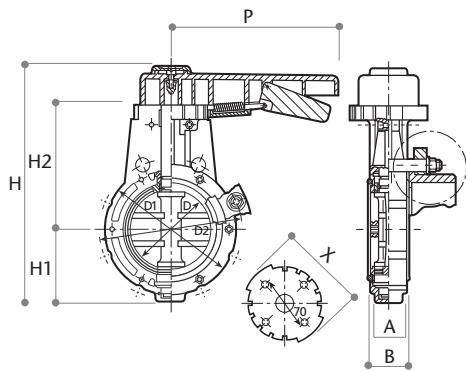
3 way ball valves 'T' port with double union BSP ends EPDM seals



d	D1	L	A	M	T	N	Kg. PVC
3/8"	15	112	80	85	45	57	0.228
1/2"	15	112	80	85	45	57	0.219
3/4"	20	123	87	85	55	62	0.300
1"	25	147	104	100	66	74	0.485
1 1/4"	32	169	115	100	79	82	0.728
1 1/2"	40	209	145	127	102	104	1.452
2"	50	230	160	127	111	117	2.184

## BFY50

Wafer butterfly valves EPDM seals



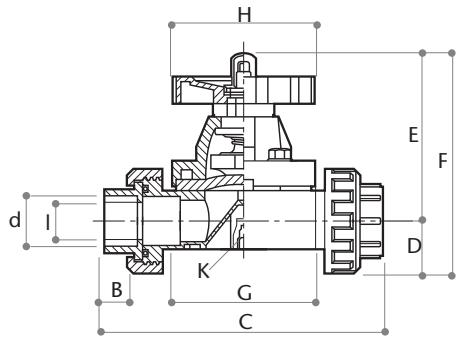
d	D	D1	D2	H	H1	H2	P	X	A	B	Kg. PVC
2"	50	98	125	223	68	107	209,5	103	42	44	0.927
2 1/2"	65	130	145	239,5	65	126,5	209,5	103	50	52,5	1.361
3"	80	144	160	254,5	72	134,5	209,5	103	50	52,5	1.492
4"	100	164	180	296	94,5	153,5	209,5	103	51	53	1.837
5"	125	194	210	323	123	152	209,5	103	64	66,5	2.220
6"	150	220	240	345	123	174	299	103	64	67	2.917
8"	200	290	295	407,7	145	215	299	103	72	74,5	5.805
10"	250	325	350	508,5	210	248	450	140	105	109	10.00

Dimensions in mm

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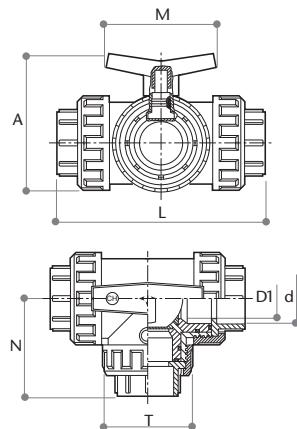
## DVD33

Diaphragm valves with double union ends  
for solvent weld FPM Diaphragm



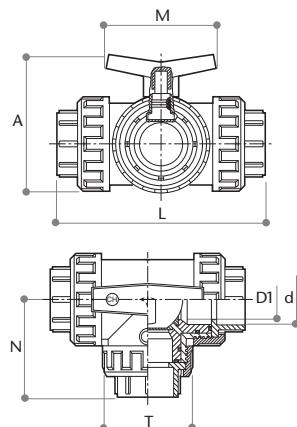
## BVL13

3 way ball valves 'L' port with double  
union ends for solvent welding EPDM seals



## BVT13

3 way ball valves 'T' port with double  
union ends for solvent welding EPDM seals



d	B	C	D	E	F	G	H	I	K	Kg. PVC
3/8"	17	156	24	93	117	73	82	10	M-6	0.428
1/2"	17	156	24	93	117	73	82	15	M-6	0.426
3/4"	19	168	27	98	125	83	82	20	M-6	0.535
1"	22	184	33	107	140	93	94	25	M-6	0.760
1 1/4"	27	205	39	113	152	102	94	32	M-8	1.015
1 1/2"	35	228	50	121	171	115	117	40	M-8	1.594
2"	32	245	47	123	170	122	117	50	M-8	1.929

d	D1	L	A	M	T	N	Kg. PVC
3/8"	15	112	80	85	45	57	0.227
1/2"	15	112	80	85	45	57	0.222
3/4"	20	123	87	85	55	62	0.303
1"	25	147	104	100	66	74	0.492
1 1/4"	32	169	115	100	79	82	0.760
1 1/2"	40	209	145	127	102	104	1.456
2"	50	230	160	127	111	117	1.843

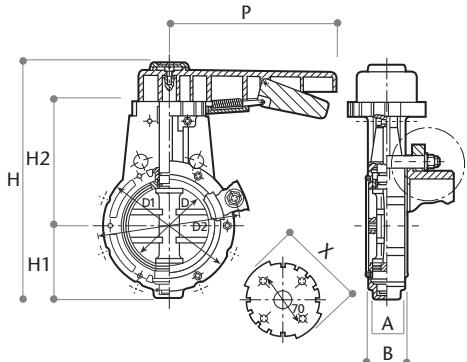
d	D1	L	A	M	T	N	Kg. PVC
3/8"	15	112	80	85	45	57	0.226
1/2"	15	112	80	85	45	57	0.221
3/4"	20	123	87	85	55	62	0.300
1"	25	147	104	100	66	74	0.489
1 1/4"	32	169	115	100	79	82	0.742
1 1/2"	40	209	145	127	102	104	1.436
2"	50	230	160	127	111	117	2.142

Dimensions in mm

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## BFY53

Wafer butterfly valves FPM seals



## ACTUATED VALVES

### PVC BVI13



### ABS BVI13



### PVC BVL13



### PVC BVT13



### PVC BFY53



### PVC BFY50



d	D	D1	D2	H	H1	H2	P	X	A	B	Kg. PVC
2"	50	98	125	223	68	107	209,5	103	42	44	0.927
2½"	65	130	145	239,5	65	126,5	209,5	103	50	52,5	1.361
3"	80	144	160	254,5	72	134,5	209,5	103	50	52,5	1.492
4"	100	164	180	296	94,5	153,5	209,5	103	51	53	1.837
5"	125	194	210	323	123	152	209,5	103	64	66,5	2.220
6"	150	220	240	345	123	174	299	103	64	67	2.917
8"	200	290	295	407,7	145	215	299	103	72	74,5	5.805
10"	250	325	350	508,5	210	248	450	140	105	109	10.00

	Pneumatic Double Acting	Pneumatic Spring Return	Electric 24v a/dc, 110v ac, 240v ac
PVC BVI13 Ball Valves	✓	✓	✓
ABS BVI13 Ball Valves	✓	✓	✓
PVC BVL13 'L' Port Valves	✓	✓	✓
PVC BVL13 'T' Port Valves	✓	✓	✓
PVC BFY50 Butterfly Valves	✓	✓	✓
PVC BFY53 Butterfly Valves	✓	✓	✓

All our actuated valves are assembled and tested in our own workshop and are usually despatched within 7 working days of receipt of order.

All actuators have been sized with the valves at maximum working pressure with a 25% safety factor which will allow immediate use with the majority of media.

For solid or viscous media however please contact our technical department.

A full range of accessories are available these include visual indicators, pilot solenoid valves, modulating actuators and switch boxes. Please contact our sales department for more information.

## SG50

EPDM Gaskets  
Stub Gaskets



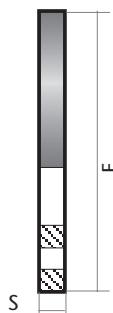
## SF10

EPDM Gaskets  
FF BS10 Table E



## SF16

EPDM Gaskets  
FF BS4504 PN16



Size	E	S	Kg.
1/2"	34	3	0.020
3/4"	41	3	0.021
1"	50	3	0.026
1 1/4"	61	3	0.029
1 1/2"	73	3	0.034
2"	90	3	0.035
2 1/2"	106	3	0.038
3"	125	3	0.040
4"	150	4	0.043
5"	188	4	0.059
6"	213	4	0.073
8"	274	4	0.088

Size	E	S	Holes	Kg.
1/2"	95	3	4	0.030
3/4"	101	3	4	0.036
1"	114	3	4	0.038
1 1/4"	120	3	4	0.040
1 1/2"	135	3	4	0.055
2"	156	3	4	0.057
3"	186	3	4	0.099
4"	219	3	8	0.114
6"	279	3	8	0.160

Size	E	S	Holes	Kg.
1/2"	95	3	4	0.030
3/4"	101	3	4	0.036
1"	114	3	4	0.038
1 1/4"	120	3	4	0.040
1 1/2"	135	3	4	0.055
2"	156	3	4	0.057
2 1/2"	176	3	4	0.078
3"	186	3	8	0.099
4"	219	3	8	0.114
6"	279	3	8	0.160

Dimensions in mm

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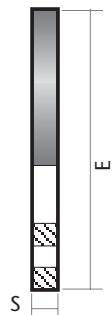
## GB10

Galvanised Mild Steel Backing Rings  
BS10 Table E



## GB16

Galvanised Mild Steel Backing Rings  
BS4504 PN16



## GB15

Galvanised Mild Steel Backing Rings  
BS1560 ASA150



Size	E	S	P.C.D.	Holes	Kg.
1/2"	95	6	67	4	0.210
3/4"	102	6	73	4	0.230
1"	115	6	83	4	0.290
1 1/4"	120	6	87	4	0.290
1 1/2"	134	8	98	4	0.370
2"	152	8	115	4	0.590
2 1/2"	165	8	127	4	0.890
3"	185	8	145	4	1.060
4"	216	8	178	8	1.190
5"	254	10	210	8	2.070
6"	290	10	235	8	2.160
8"	337	10	292	8	2.800

Size	E	S	P.C.D.	Holes	Kg.
1/2"	95	6	65	4	0.350
3/4"	105	6	75	4	0.410
1"	115	6	85	4	0.490
1 1/4"	140	6	100	4	0.730
1 1/2"	150	6	110	4	0.820
2"	165	8	125	4	1.220
2 1/2"	185	8	145	4	1.480
3"	200	8	160	8	1.500
4"	220	8	180	8	1.680
5"	250	10	210	8	1.940
6"	285	10	240	8	2.700
8"	340	10	295	12	3.230

Size	E	S	P.C.D.	Holes	Kg.
1/2"	89	6	60	4	0.190
3/4"	99	6	70	4	0.230
1"	108	6	80	4	0.290
1 1/4"	118	6	90	4	0.300
1 1/2"	127	6	98	4	0.360
2"	152	8	121	4	0.790
3"	190	8	152	4	1.240
4"	229	8	190	8	1.560
5"	254	10	216	8	2.070
6"	280	10	241	8	2.730
8"	343	10	298	8	3.340

Dimensions in mm

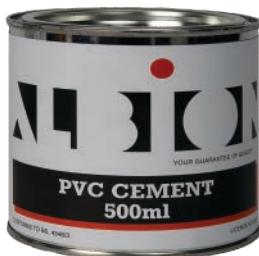
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## Accessories

### PVC

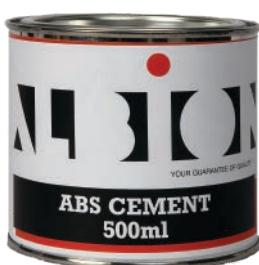
Solvent Cement for uPVC



Size	Code	Kg
500ml Tin	PVC	0.590

### ABS

Solvent Cement for ABS



Size	Code	Kg
500ml Tin	ABS	0.525

### MEK

Cleaning fluid for uPVC and ABS



Size	Code	Kg
500ml Tin	MEK	0.490

Dimensions in mm

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## PVC-U Imperial Pipe Dimensions



## ABS Imperial Pipe Dimensions



### PVC-U Pressure Pipe Class C

NB	OD	Min Wall	Kg
2"	60.2	2.5	0.646
3"	88.7	3.5	1.421
4"	114.1	4.5	2.334
5"	140.0	5.5	3.485
6"	168.0	6.6	4.997
8"	218.8	7.8	7.693

### PVC-U Pressure Pipe Class E

NB	OD	Min Wall	Kg
1/2"	21.2	1.7	0.170
3/4"	26.6	1.9	0.240
1"	33.4	2.2	0.335
1 1/4"	42.1	2.7	0.509
1 1/2"	48.1	3.1	0.661
2"	60.2	3.9	1.036
3"	88.7	5.7	2.220
4"	114.1	7.3	3.652
6"	168.0	10.8	7.894

### PVC-U Pressure Pipe Class 7

NB	OD	Min Wall	Kg
1/2"	21.2	3.7	0.300
3/4"	26.6	3.9	0.418
1"	33.4	4.5	0.615
1 1/4"	42.1	4.8	0.844
1 1/2"	48.1	5.1	1.039
2"	60.2	5.5	1.440

### ABS Pressure Pipe Class C

NB	OD	Min Wall	Kg
1"	33.4	1.9	0.220
1 1/4"	42.1	2.4	0.340
1 1/2"	48.1	2.7	0.450
2"	60.2	3.4	0.700
2 1/2"	75.0	4.7	1.350
3"	88.7	5.0	1.480
4"	114.1	6.4	2.480
5"	140.0	8.8	4.650
6"	168.0	9.4	5.470
8"	218.8	12.2	9.530

### ABS Pressure Pipe Class E

NB	OD	Min Wall	Kg
1/2"	21.2	1.9	0.140
3/4"	26.6	2.4	0.210
1"	33.4	3.0	0.330
1 1/4"	42.1	3.8	0.520
1 1/2"	48.1	4.4	0.680
2"	60.2	5.4	1.060
3"	88.7	8.1	2.280
4"	114.1	10.3	3.760

Dimensions in mm

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## Clips

### CLIC CLIPS

CLIC Pipe Clamps dia 8 - 64mm



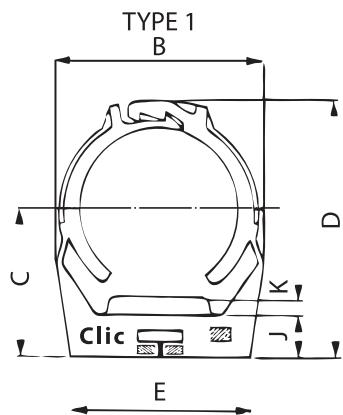
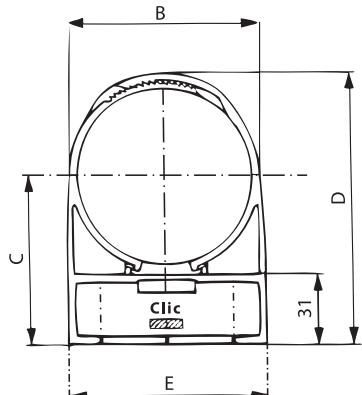
### CLIC CLIPS

CLIC Pipe Clamps dia 63 - 127mm



### CLIC CLIPS

Clic Dimensions



Product	Clamping Range	Table A	
		Max Load n*	PCS/Carton
Clic 20	19.5 - 22	700	100
Clic 25	24.6 - 27.8	850	50
Clic 32	31.2 - 35.5	1000	50
Clic 40	39.5 - 43.5	1150	25
Clic 47	46.5 - 50.5	1300	25
Clic 59	58.5 - 64	1600	20

Product	Clamping Range	Table B	
		Max Load n*	PCS/Carton
Clic 71	71 - 80	1300	25
Clic 80	80 - 90	1600	25
Clic 113	113 - 127	2500	25

\* newton

Nominal Clic Size	B	Table F C	D	E	J	K
8	17.1	17.5	26.4	17.1	7.5	4.3
10	17.1	16.6	26.2	17.1	7.5	3
12	23.6	18.4	29.9	20.2	7.5	3.4
15	23.7	18.6	30	20.3	7.5	2.4
17	27	22	35.4	22.5	7.8	3.4
20	29.5	23.07	39.4	24.8	7.2	3.2
22	35.10	25	40.9	29	8.6	3.8
25	35.8	26.8	45.1	30.4	8.8	2.8
28	39.7	28.8	48.9	33.4	8.8	3.5
32	44.7	32.2	54.4	38	9	3.5
36	49.01	34.3	59.4	41.8	9.1	4.1
40	53.2	36.3	64.2	46.2	9.3	3.7
47	61.3	40.6	72.8	53.5	9.8	4.1
51	67	44.3	78.7	58.6	10.2	4.1
59	76.6	48.6	88.2	66.3	10.7	4.2
63	79	72	115	78		
71	91	77	124	87		
80	102	83	136	98		
90	110	89	148	110		
101	124	96	163	124		
113	143	105	180	139		

Dimensions in mm

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