






Product Range

TP fittings and valves



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PVC-U Fittings

Applications

TP (formerly known as Tecno Plastic) is a dedicated brand of PVC fittings and valves for water piping systems. Each TP product is designed to meet the demands of the customers in specific application areas such as distribution, treatment and sewage water, public and private swimming pools, thermal pools and spas, aquariums and aquaculture, irrigation and fountains.

Range

TP full range of fittings is available in following ranges: metric for solvent cement from 16 mm to 225 mm, BSP threaded from 3/8" to 6", adapt or set from 16x3/8" to 160x6".

MECHANICAL PROPERTIES

Max working pressure in Bar

Series	Dimensions	PN
Solvent jointing	from d 16 to d 200	16
	from d 225 to d 315	10
Threaded	from 3/8" to 6"	16
Adapt or range	from D 16 to D 160	16

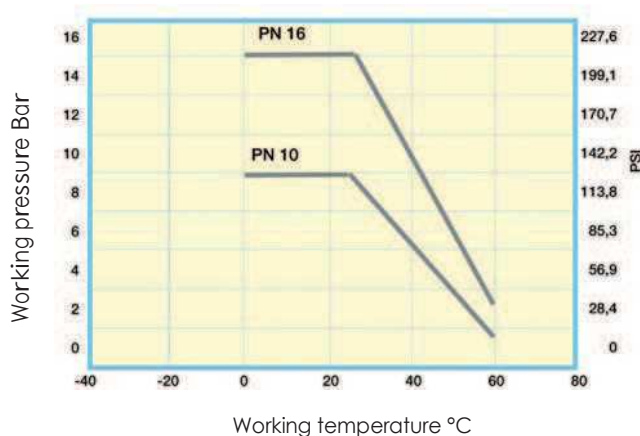
Sanitary regulations

Our fittings, as well as applied raw material, are suitable for drinkable water and foodstuffs fluids in accordance either to the Italian National Authorities laws (D.M.174, 6th april 2004), or other international organizations.

Materials

The PVC-U compound used by TP is stabilised unplasticized polyvinyl chloride. Material chemical resistances according to ISO/TR 10358.

PRESSURE-TEMPERATURE RELATIONSHIP ACCORDING TO DIN 3441 BLATT 1 AND EN 145£/3/5



Standards

The raw material applied for TP products is in compliance with international standards mentioned in the table "PHYSICAL PROPERTIES OF PVC-U".

TP fittings are in compliance with the main international standards too, like ISO EN 1452-3, NF & KIW A, so that they can be combined with pipes according to the main international standards.

SAFETY FACTORS AT 20°C FOR PN 16 FITTINGS

Working pressure	Hours		Corresponding to 50 years life
	1	1000	
10 Bar	6,7	5,1	4,0
16 Bar DN ≤ 160	4,2	3,2	2,5
16 Bar DN > 160	3,36	2,56	2

Gaskets

Standard Gaskets for unions and stubs are in EPDM (ethylene - polypropylene rubber).

PHYSICAL PROPERTIES OF PVC-U

Characteristics	Standard	Units	PVC
Density	ISO 1183	kg/dm ³	1,40
Elongation	ISO R527	%	154
Modulus of elasticity	ISO R527	MPa	2.600
Resistance to traction	ISO R527	MPa	40
Tensile strength	ISO R527	MPa	44
Vicat softening point with 5 Kg	ISO 306	°C	> 76
Thermal conductivity 23°C	ASTM C177	$\frac{W}{mk}$	0,13±0,19
Coefficient of linear expansion	ASTM D696 UNI 6061	$\frac{mm}{mm°C}$	5÷8x10 ⁻⁵
Water absorption	UNI 7449-75	mg/cm ²	< 0,1
Meets fire regulations	UL94		V-O
Ash content	UNI 7449-75	%	< 3
Colour			9735

PVC-U Fittings

PIPE-FITTINGS TOLLERANCES FOR SOLVENT JOINTING ACCORDING TO:

Fittings: ISO 727 - EN 1452/2/3 - DIN 8063 - KIWA 54
NFT54-028

Pipes: ISO 161 - EN 1452/2 - DIN 8062 - KIWA 49
NFT54-016

Nominal		male fittings outside diam.		female fittings inside diam.	
DN	D	Min.	Max.	Min.	Max.
10	16	16	16,20	16,10	16,30
15	20	20	20,20	20,10	20,30
20	25	25	25,20	25,10	25,30
25	32	32	32,20	32,10	32,30
32	40	40	40,20	40,10	40,30
40	50	50	50,20	50,10	50,30
50	63	63	63,20	63,10	63,30
65	75	75	75,30	75,10	75,30
80	90	90	90,30	90,10	90,30
100	110	110	110,30	110,10	110,40
110	125	125	125,30	125,10	125,40
125	140	140	140,40	140,20	140,50
150	160	160	160,40	160,20	160,50
200	200	200	200,50	200,20	200,60
200	225	225	225,50	225,30	225,70

DIMENSIONS OF THREAD ACCORDING TO:

UNI ISO 7-1 - BS 21 - DIN 2999
(parallel threaded sockets)

Nominal diameter	Outside thread diameter	Pitch		Thread depth	Thread assembling length
		G	n° of threads/1"		
3/8"	16,66	19	1,337	0,856	11,4
1/2"	20,95	14	1,814	1,162	15,0
3/4"	26,44	14	1,814	1,162	16,3
1"	33,25	11	2,309	1,479	19,1
1 1/4"	41,91	11	2,309	1,479	21,4
1 1/2"	47,80	11	2,309	1,479	21,4
2"	59,61	11	2,309	1,479	25,7
2 1/4"	65,71	11	2,309	1,479	-
2 1/2"	75,18	11	2,309	1,479	30,2
2 3/4"	81,53	11	2,309	1,479	-
3"	87,88	11	2,309	1,479	33,3
4"	113,03	11	2,309	1,479	39,3
5"	138,43	11	2,309	1,479	43,6
6"	163,83	11	2,309	1,479	43,6

Assembly instructions

METRIC SET FOR SOLVENT CEMENT JOINTINS

TP fittings in rigid PVC-U of metric range can be glued to each other and with pipes of same material provided that the pipe dimension and tolerances are in accordance with the mentioned standard. A strong dense-type glue is recommended, especially for glueing large diameters, where the clearance may be high due to the ovalization effect; such clearance, anyhow, in order to guarantee a perfect seal, should never exceed 0,6 mm with a dense type glue and 0,3 mm with a fluid-type glue.

In order to obtain a perfect gluing it is recommended that the glue manufacturer's instructions be strictly followed. These instructions can be summarized as follows:

- remove all traces of grease, oil or simply dust from both the pipe (properly cut at 90° and beveled at the top) and the fitting by means of a clean cloth soaked in diluent;
- apply, by a suitable brush, a uniform layer of glue, both to the fitting and to the pipe, and cover the entire surface to be glued;
- immediately (in 1 to 2 minutes) insert the part to be glued in the female fitting;
- it is recommended that all glue in excess, which flows out of the coupling, to be quickly removed.

It is also recommended that freshly glued parts should not be submitted to mechanical stresses.

The glue manufacturer's instructions concerning how long to wait before handling, sticking and pressure testing the system should be carefully followed.

Generally speaking, none of these operations should take place in the 24 hours following the gluing.

THREADED SERIES

TP fittings in rigid PV C-U of the threaded series or of the adaptor series can be screwed to each other or to pipe and other threaded parts in other materials in accordance with the rules given.

In order to obtain easy screwing and perfect sealing, the use of high quality PTFE tape is recommended in quantity sufficient to avoid clearance without causing too tight shutting.

The use of hemp, tow and lint, usually employed for metal fittings, should be avoided.

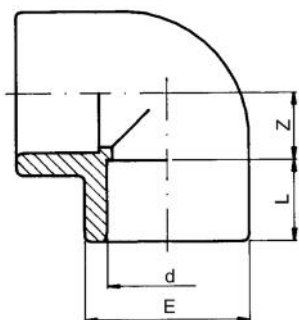
Such materials, contrary to what happens with PTFE, are not rejected by the coupling even when used in excess, making the female fitting expand in such a way as to cause breakages both during the assembly stage and later, during operation.

The information set forth are purely indicative, we therefore recommend to comply to laws and regulations relating to the various countries (ex: UNI 11242 Jointing by cementing pipes, fittings and valves PVC-U).

PVC-U fittings solvent cement jointing

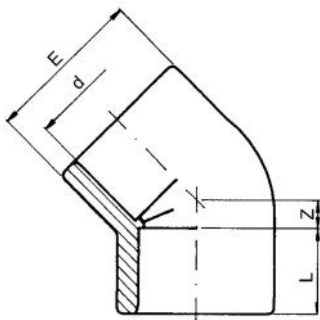
Metric range

Elbow 90° PVC-U metric



d (mm)	d (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L (mm)	Z (mm)	E (mm)
16		16	RV0G01160	2 01 950 010	10	320	0.010	14	9	22
20		16	RV0G01200	2 01 950 010	10	160	0.015	16	11	26
25		16	RV0G01250	2 01 950 010	10	160	0.025	19	14	32
32		16	RV0G01320	2 01 950 010	10	80	0.040	22	17	40
40		16	RV0G01400	2 01 950 010	65	0	0.095	26	21	51
50		16	RV0G01500	2 01 950 010	80	0	0.120	31	26	61
63		16	RV0G01630	2 01 950 010	40	0	0.206	38	33	75
75	2 ½	16	RV0G01750	2 01 950 010	50	0	0.386	44	39	89
90		16	RV0G01900	2 01 950 010	30	0	0.603	51	47	106
110		16	RV0G01910	2 01 950 010	17	0	1.078	61	57	129
125		16	RV0G01920	2 01 950 010	12	0	1.390	69	66	145
140	5	16	RV0G01930	2 01 950 010	8	0	2.050	76	72	163
160		16	RV0G01940	2 01 950 010	5	0	3.105	86	82	190
200		16	RV0G01960	2 01 950 010	28	0	4.800	106	102	228
225		10	RV0G01970	2 01 950 010	18	0	6.600	119	115	255
250		10	RV0G01980	2 01 950 013	10	0	12.100	131	188	286
315		10	RV0G01991	2 01 950 010	5	0	23.500	164	239	358

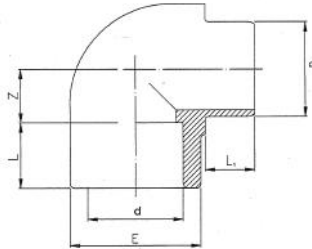
Elbow 45° PVC-U metric



d (inch)	d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	Z (mm)	E (mm)	L (mm)
	16	16	RV0GY1160	2 01 950 010	10	400	0.010	5	23	14
	20	16	RV0GY1200	2 01 950 010	10	300	0.017	5	28	16
	25	16	RV0GY1250	2 01 950 010	10	200	0.029	6	34	19
	32	16	RV0GY1320	2 01 950 010	10	100	0.047	8	42	22
	40	16	RV0GY1400	2 01 950 010	80	0	0.076	10	51	26
	50	16	RV0GY1500	2 01 950 010	100	0	0.110	12	61	31
	63	16	RV0GY1630	2 01 950 010	50	0	0.180	14	75	38
2 ½	75	16	RV0GY1750	2 01 950 010	65	0	0.308	17	89	44
	90	16	RV0GY1900	2 01 950 010	40	0	0.477	20	106	51
	110	16	RV0GY1910	2 01 950 010	22	0	0.842	24	129	61
	125	16	RV0GY1920	2 01 950 010	14	0	1.065	27	145	69
5	140	16	RV0GY1930	2 01 950 010	8	0	1.600	31	163	76
	160	16	RV0GY1940	2 01 950 010	6	0	2.240	35	185	86
	200	16	RV0GY1960	2 01 950 010	30	0	3.780	43	228	106
	225	10	RV0GY1970	2 01 950 010	24	0	5.755	49	255	119
	250	10	RV0GY1980	2 01 950 013	1	0	7.680	58	287	131
	315	10	RV0GY1991	2 01 950 013	8	0	14.700	66	360	164

PF 2 01 950 010

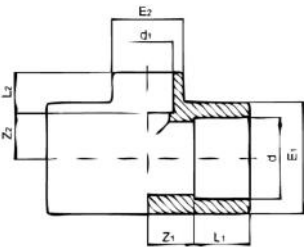
Elbow 90° M/F PVC-U metric



d (mm)	PN (bar)	Code	SP	Weight (kg)	L1 (mm)	E (mm)	L (mm)	Z (mm)
50	16	RV0GPI500	75	0.155	31	61	31	26
63	16	RV0GPI630	40	0.250	38	75	38	33

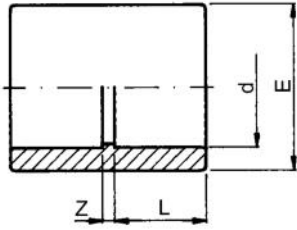
PF 2 01 950 010

Reduced tee 90° PVC-U metric



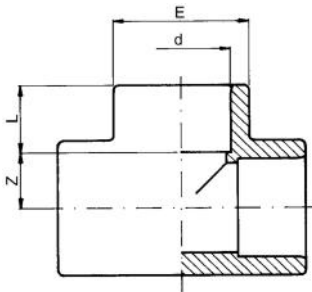
d - d1 (mm)	PN (bar)	Code	SP	GP	Weight (kg)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	E2 (mm)	E1 (mm)
20 - 16	16	RV0TRI20A	10	200	0.016	11	11	16	14	23	28
25 - 16	16	RV0TRI25A	10	120	0.041	14	14	19	14	23	34
25 - 20	16	RV0TRI25B	10	120	0.042	14	14	19	16	28	34
32 - 16	16	RV0TRI32A	10	140	0.068	17	17	22	14	23	42
32 - 20	16	RV0TRI32B	10	140	0.066	17	17	22	16	28	42
32 - 25	16	RV0TRI32C	10	140	0.070	17	17	22	19	34	42
40 - 20	16	RV0TRI40B	100	0	0.105	21	21	26	16	28	51
40 - 25	16	RV0TRI40C	100	0	0.111	21	21	26	19	34	51
40 - 32	16	RV0TRI40D	100	0	0.112	21	21	26	22	42	51
50 - 20	16	RV0TRI50B	50	0	0.156	26	26	31	16	28	61
50 - 25	16	RV0TRI50C	50	0	0.162	26	26	31	19	34	61
50 - 32	16	RV0TRI50D	50	0	0.162	26	26	31	22	42	61
50 - 40	16	RV0TRI50E	50	0	0.173	26	26	31	26	51	61
63 - 20	16	RV0TRI63B	30	0	0.268	33	33	38	16	28	75
63 - 25	16	RV0TRI63C	30	0	0.270	33	33	38	19	34	75
63 - 32	16	RV0TRI63D	30	0	0.274	33	33	38	22	42	75
63 - 40	16	RV0TRI63E	30	0	0.277	33	33	38	26	51	75
63 - 50	16	RV0TRI63F	30	0	0.278	33	33	38	31	61	75
75 - 32	16	RV0TRI75D	18	0	0.463	39	39	44	22	42	89
75 - 40	16	RV0TRI75E	45	0	0.460	39	39	44	26	51	89
75 - 50	16	RV0TRI75F	18	0	0.464	39	39	44	31	61	89
75 - 63	16	RV0TRI75G	30	0	0.478	39	39	44	38	75	89
90 - 40	16	RV0TRI90E	30	0	0.702	47	47	51	26	61	106
90 - 50	16	RV0TRI90F	28	0	0.703	47	47	51	31	61	106
90 - 63	16	RV0TRI90G	24	0	0.713	47	47	51	38	75	106
90 - 75	16	RV0TRI90H	24	0	0.731	47	47	51	44	89	106
110 - 50	16	RV0TRI91F	16	0	1.245	57	57	61	31	61	129
110 - 63	16	RV0TRI91G	16	0	1.250	57	57	61	38	75	129
110 - 75	16	RV0TRI91H	16	0	1.255	57	57	61	44	89	129
110 - 90	16	RV0TRI91I	14	0	1.297	57	57	61	51	106	129
125 - 63	16	RV0TRI92G	9	0	1.955	66	66	69	38	75	148
125 - 90	16	RV0TRI92I	9	0	1.740	66	66	69	51	106	148
125 - 110	16	RV0TRI92L	8	0	2.060	66	66	69	61	129	148
160 - 90	16	RV0TRI94I	4	0	3.790	82	82	86	51	106	190
160 - 110	16	RV0TRI94L	4	0	3.840	82	82	86	61	129	190

Double socket PVC-U metric



d (mm)	d (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	Z (mm)	L (mm)	E (mm)
16		16	RV0MAI160	2 01 950 010	10	500	0.009	3	14	22
20		16	RV0MAI200	2 01 950 010	10	300	0.010	3	16	26
25		16	RV0MAI250	2 01 950 010	10	200	0.016	3	19	32
32		16	RV0MAI320	2 01 950 010	10	130	0.026	3	22	40
40		16	RV0MAI400	2 01 950 010	100	0	0.043	3	26	48
50		16	RV0MAI500	2 01 950 010	60	0	0.075	3	31	60
63		16	RV0MAI630	2 01 950 010	70	0	0.121	3	38	74
75	2 ½	16	RV0MAI750	2 01 950 010	48	0	0.226	4	44	89
90		16	RV0MAI900	2 01 950 010	50	0	0.361	5	51	106
110		16	RV0MAI910	2 01 950 010	36	0	0.625	6	61	129
125		16	RV0MAI920	2 01 950 010	24	0	0.840	7	69	145
140	5	16	RV0MAI930	2 01 950 010	14	0	1.100	8	76	162
160		16	RV0MAI940	2 01 950 010	9	0	1.400	8	86	184
200		16	RV0MAI960	2 01 950 010	4	0	2.560	10	106	227
225		10	RV0MAI970	2 01 950 010	2	0	3.540	10	119	252
250		10	RV0MAI980	2 01 950 013	22	0	5.250	10	131	287
315		10	RV0MAI991	2 01 950 013	12	0	10.000	12	164	355

Tee 90° PVC-U metric

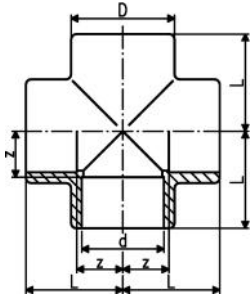


d (mm)	d (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L (mm)	E (mm)	Z (mm)
16		16	RV0TII160	2 01 950 010	10	300	0.017	14	22	9
20		16	RV0TII200	2 01 950 010	10	200	0.029	16	26	11
25		16	RV0TII250	2 01 950 010	10	100	0.032	19	32	14
32		16	RV0TII320	2 01 950 010	10	130	0.055	22	40	17
40		16	RV0TII400	2 01 950 010	45	0	0.127	26	51	21
50		16	RV0TII500	2 01 950 010	50	0	0.185	31	61	26
63		16	RV0TII630	2 01 950 010	25	0	0.315	38	75	33
75	2 ½	16	RV0TII750	2 01 950 010	35	0	0.523	44	89	39
90		16	RV0TII900	2 01 950 010	20	0	0.830	51	106	47
110		16	RV0TII910	2 01 950 010	14	0	1.430	61	129	57
125		16	RV0TII920	2 01 950 010	8	0	1.960	69	148	66
140	5	16	RV0TII930	2 01 950 010	6	0	2.650	76	163	72
160		16	RV0TII940	2 01 950 010	4	0	4.350	86	190	82
200		16	RV0TII960	2 01 950 010	20	0	6.540	106	228	102
225		10	RV0TII970	2 01 950 010	15	0	8.630	119	255	115
250		10	RV0TII980	2 01 950 013	10	0	12.600	131	286	128
315		10	RV0TII991	2 01 950 013	4	0	23.400	161	360	162

PF 2 01 950 013

Cross 90° PVC-U metric

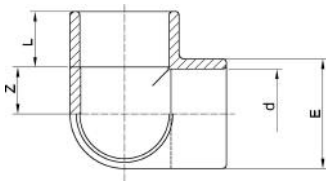
• (*) Traded items



	d (mm)	PN (bar)	Code	SP	Weight (kg)	D (mm)	Z (mm)	L (mm)
*	20	16	RV0CRI200	120	0.030	27.5	11	16
*	25	16	RV0CRI250	80	0.060	33.5	14	19
*	32	16	RV0CRI320	130	0.105	42.0	17	22
*	40	16	RV0CRI400	35	0.175	51.0	21	26
*	50	16	RV0CRI500	35	0.265	61.0	26	31
*	63	16	RV0CRI630	18	0.505	75.0	33	38
*	75	10	RV0CRI750	24	0.735	91.0	40	44
*	90	10	RV0CRI900	18	1.180	106.0	46	51
*	110	10	RV0CRI910	9	1.588	129.5	56	61

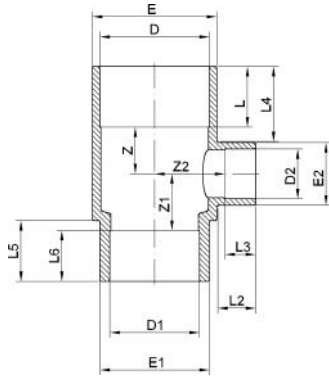
PF 2 01 950 010

Three way elbow PVC-U metric



	d (mm)	PN (bar)	Code	SP	Weight (kg)	Z (mm)	L (mm)	E (mm)
	50	16	RV0GTI500	50	0.155	26	31	61
	63	16	RV0GTI630	25	0.250	33	38	75

PF 2 01 950 010



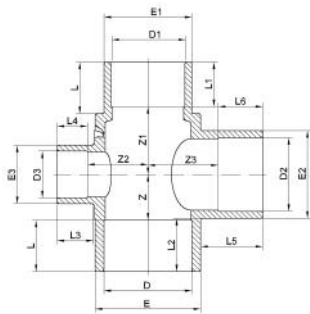
Manifold tee PVC-U metric

E x D1 x D2 (mm)	PN (bar)	Code	SP	Weight (kg)
90 - 63 - 40	16	RV0TDI900	18	0.500
140 - 110 - 50	16	RV0TDI930	6	0.995

E x D1 x D2 (mm)	D1 (mm)	D2 (mm)	Z1 (mm)	Z2 (mm)	E2 (mm)	E1 (mm)	L2 (mm)	L3 (mm)	D (mm)	L (mm)	L6 (mm)	E (mm)	L4 (mm)	L5 (mm)
90 - 63 - 40	63	40	58	51	50	75	31	26	75	44	38	90	46	44
140 - 110 - 50	110	50	47	79	63	125	38	31	125	61	61	140	75	61

E x D1 x D2 (mm)	Z (mm)
90 - 63 - 40	39
140 - 110 - 50	47

PF 2 01 950 010



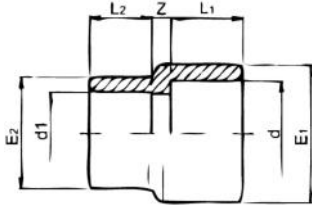
Adaptor cross PVC-U metric

E x D2 x D3 (mm)	PN (bar)	Code	SP	Weight (kg)
90 - 63 - 40	16	RV0TCI900	12	0.570

E x D2 x D3 (mm)	E (mm)	Z1 (mm)	D1 (mm)	D2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	D (mm)	L (mm)	L2 (mm)	z3 (mm)	L1 (mm)	E3 (mm)
90 - 63 - 40	90	58	63	63	31	26	53	38	75	44	46	60	38	50

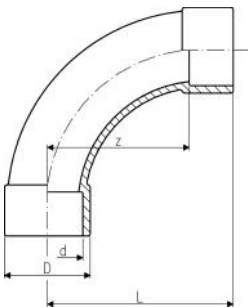
E x D2 x D3 (mm)	Z (mm)	z2 (mm)	D3 (mm)	E2 (mm)	E1 (mm)
90 - 63 - 40	39	52	40	75	75

Reducing socket PVC-U metric



d - d1 (mm)	PN (bar)	Code	SP	Weight (kg)	Z (mm)	E2 (mm)	E1 (mm)	L2 (mm)	L1 (mm)
20 - 16	16	RV0MRI20A	270	0.010	6	23	28	14	16
25 - 20	16	RV0MRI25B	200	0.016	6	28	34	16	19
32 - 25	16	RV0MRI32C	150	0.027	6	34	42	19	22
40 - 32	16	RV0MRI40D	100	0.055	6	42	51	22	26
50 - 40	16	RV0MRI50E	60	0.081	6	51	61	26	31
63 - 50	16	RV0MRI63F	70	0.132	6	61	75	31	38
75 - 63	16	RV0MRI75G	50	0.215	4	75	89	38	44
90 - 75	16	RV0MRI90H	40	0.350	5	89	106	44	51
110 - 90	16	RV0MRI91I	48	0.550	6	106	129	51	61
125 - 110	16	RV0MRI92L	22	0.740	24	129	145	61	69
140 - 110	16	RV0MRI93L	18	0.970	25	129	160	61	76
140 - 125	16	RV0MRI93M	16	1.025	19	145	160	69	76
160 - 110	16	RV0MRI94L	12	1.220	24	130	181	61	86
160 - 140	16	RV0MRI94N	9	1.350	8	162	184	76	86
200 - 160	16	RV0MRI96O	6	2.360	24	184	227	86	106
225 - 200	10	RV0MRI97Q	4	3.220	10	227	255	106	119

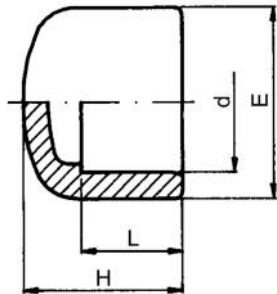
Bend 90° PVC-U metric



d (mm)	d (inch)	PN (bar)	Code	PF	SP	Weight (kg)	L (mm)	D (mm)	z (mm)
20		16	RV0CUI200	2 01 950 010	10	0.028	56	27	40
25		16	RV0CUI250	2 01 950 010	10	0.049	69	33	50
32		16	RV0CUI320	2 01 950 010	10	0.067	86	38	64
40		16	RV0CUI400	2 01 950 010	60	0.130	106	47	80
50		16	RV0CUI500	2 01 950 010	60	0.277	131	61	100
63		16	RV0CUI630	2 01 950 010	30	0.515	164	76	126
75	2 ½	16	RV0CUI750	2 01 950 013	20	0.786	194	90	150
90		16	RV0CUI900	2 01 950 013	12	1.334	231	108	180
110		16	RV0CUI910	2 01 950 013	6	2.960	281	137	220

PF 2 01 950 010

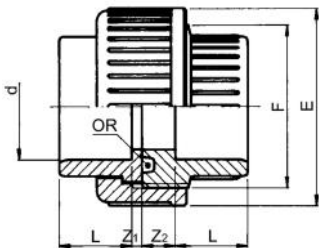
Cap PVC-U metric



d (mm)	d (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	E (mm)	L (mm)
16		16	RV0CAI160	10	600	0.005	22	22	14
20		16	RV0CAI200	10	500	0.008	26	26	16
25		16	RV0CAI250	10	400	0.013	30	32	19
32		16	RV0CAI320	10	200	0.022	33	40	22
40		16	RV0CAI400	100	0	0.045	41	51	26
50		16	RV0CAI500	80	0	0.065	46	61	31
63		16	RV0CAI630	50	0	0.110	55	75	38
75	2 ½	16	RV0CAI750	25	0	0.187	64	89	44
90		16	RV0CAI900	20	0	0.301	73	106	51
110		16	RV0CAI910	25	0	0.510	87	129	61
125		16	RV0CAI920	36	0	0.665	98	145	69
140	5	16	RV0CAI930	30	0	0.915	108	162	76
160		16	RV0CAI940	18	0	1.195	123	182	86
200		16	RV0CAI960	8	0	2.115	149	228	106
225		10	RV0CAI970	6	0	2.835	165	256	119

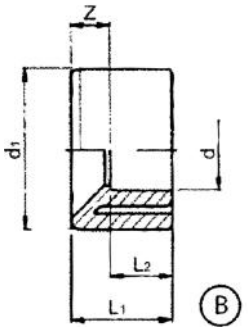
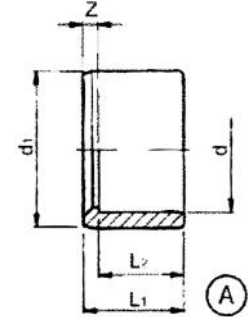
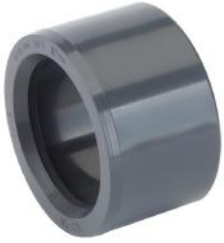
PF 2 01 950 010

Union with o-ring PVC-U metric



d (mm)	d (inch)	PN (bar)	EPDM Code	SP	GP	Weight (kg)	Z1 (mm)	E (mm)	Z2 (mm)	L (mm)	F (inch)
16		16	RV0BOI160	10	300	0.025	3	34	10	14	¾
20		16	RV0BOI200	10	200	0.042	3	42	10	16	1
25		16	RV0BOI250	10	100	0.066	3	52	10	19	1 ¼
32		16	RV0BOI320	10	60	0.093	3	59	10	22	1 ½
40		16	RV0BOI400	100	0	0.160	3	73	12	26	2
50		16	RV0BOI500	60	0	0.195	3	82	14	31	2 ¼
63		16	RV0BOI630	36	0	0.355	3	100	18	38	2 ¾
75	2 ½	16	RV0BOI750	10	0	0.575	3	119	18	44	3 ½
90		16	RV0BOI900	15	0	0.765	5	134	18	51	4
110		16	RV0BOI910	18	0	1.285	5	163	18	61	5

Reducing bush PVC-U metric

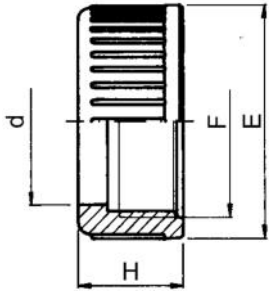


	d1-d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L2 (mm)	L1 (mm)	Z (mm)
A	20-16	16	RVORCI20A	2 01 950 010	10	800	0.003	14	16	2
B	25-16	16	RVORCI25A	2 01 950 010	10	600	0.008	14	19	5
A	25-20	16	RVORCI25B	2 01 950 010	10	600	0.005	16	19	3
B	32-16	16	RVORCI32A	2 01 950 010	10	400	0.015	14	22	8
B	32-20	16	RVORCI32B	2 01 950 010	10	400	0.015	16	22	6
A	32-25	16	RVORCI32C	2 01 950 010	10	400	0.010	19	22	3
B	40-20	16	RVORCI40B	2 01 950 010	10	200	0.025	16	26	10
B	40-25	16	RVORCI40C	2 01 950 010	10	200	0.027	19	26	7
A	40-32	16	RVORCI40D	2 01 950 010	10	200	0.016	22	26	4
B	50-25	16	RVORCI50C	2 01 950 010	180	0	0.045	19	31	12
B	50-32	16	RVORCI50D	2 01 950 010	180	0	0.042	22	31	9
A	50-40	16	RVORCI50E	2 01 950 010	180	0	0.030	26	31	5
B	63-32	16	RVORCI63D	2 01 950 010	100	0	0.083	22	38	16
B	63-40	16	RVORCI63E	2 01 950 010	100	0	0.081	26	38	12
A	63-50	16	RVORCI63F	2 01 950 010	100	0	0.062	31	38	7
B	75-40	16	RVORCI75E	2 01 950 010	60	0	0.120	26	44	18
B	75-50	16	RVORCI75F	2 01 950 010	60	0	0.122	31	44	13
A	75-63	16	RVORCI75G	2 01 950 010	60	0	0.082	38	44	6
B	90-50	16	RVORCI90F	2 01 950 010	30	0	0.210	31	51	20
B	90-63	16	RVORCI90G	2 01 950 010	30	0	0.195	38	51	13
A	90-75	16	RVORCI90H	2 01 950 010	30	0	0.140	44	51	7
B	110-63	16	RVORCI91G	2 01 950 010	20	0	0.365	38	61	23
B	110-75	16	RVORCI91H	2 01 950 010	20	0	0.365	44	61	17
A	110-90	16	RVORCI91I	2 01 950 010	20	0	0.273	51	61	10
B	125-75	16	RVORCI92H	2 01 950 010	30	0	0.412	44	69	25
B	125-90	16	RVORCI92I	2 01 950 010	30	0	0.450	51	69	18
A	125-110	16	RVORCI92L	2 01 950 010	30	0	0.273	61	69	8
B	140-90	16	RVORCI93I	2 01 950 010	22	0	0.550	51	76	25
B	140-110	16	RVORCI93L	2 01 950 010	22	0	0.475	61	76	15
A	140-125	16	RVORCI93M	2 01 950 010	22	0	0.340	69	76	7
B	160-110	16	RVORCI94L	2 01 950 010	13	0	0.795	61	86	25
B	160-125	16	RVORCI94M	2 01 950 010	13	0	0.725	69	86	17
A	160-140	16	RVORCI94N	2 01 950 010	13	0	0.545	76	86	10
A	180-160	16	RVORCI95O	2 01 950 010	20	0	0.710	86	96	10
A	200-160	16	RVORCI96O	2 01 950 010	15	0	1.645	86	106	10
A	200-180	16	RVORCI96P	2 01 950 010	15	0	0.870	96	106	10
B	225-160	10	RVORCI97O	2 01 950 010	9	0	2.300	86	119	33
A	225-200	10	RVORCI97Q	2 01 950 010	9	0	1.360	106	119	13
B	250-160	10	RVORCI98O	2 01 950 013	8	0	3.300	87	134	47
B	250-200	10	RVORCI98Q	2 01 950 013	8	0	2.735	107	134	27
A	250-225	10	RVORCI98R	2 01 950 013	8	0	1.700	120	132	12
B	315-200	10	RVORCI991Q	2 01 950 013	3	0	5.000	107	165	58
B	315-225	10	RVORCI991R	2 01 950 013	3	0	4.500	132	165	33
B	315-250	10	RVORCI991S	2 01 950 013	3	0	4.100	132	165	33

PF 2 01 950 010

Nut PVC-U

Suitable for BOI/BOF/BOP

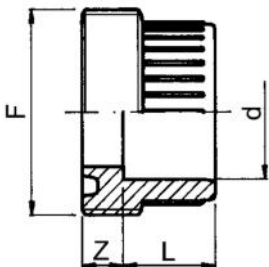


d (mm)	PN (bar)	Code	SP	Weight (kg)	F (inch)	E (mm)	H (mm)
16	16	RV0BGO160	450	0.013	¾	34	21
20	16	RV0BGO200	400	0.015	1	42	23
25	16	RV0BGO250	170	0.025	1 ¼	52	25
32	16	RV0BGO320	180	0.035	1 ½	59	27
40	16	RV0BGO400	100	0.060	2	72	30
50	16	RV0BGO500	125	0.080	2 ¼	79	34
63	16	RV0BGO630	100	0.130	2 ¾	96	38
75	16	RV0BGO750	50	0.200	3 ½	119	45
90	16	RV0BGO900	80	0.285	4	134	52
110	16	RV0BGO910	50	0.445	5	163	60

PF 2 01 950 010

Union bush PVC-U

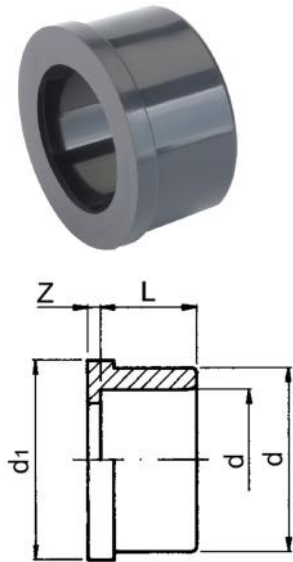
Suitable for BOI



d (mm)	d (inch)	PN (bar)	Code	SP	Weight (kg)	F (inch)	Z (mm)	L (mm)
16		16	RV0BF1160	600	0.009	¾	10	14
20		16	RV0BF1200	350	0.015	1	10	16
25		16	RV0BF1250	250	0.024	1 ¼	10	19
32		16	RV0BF1320	160	0.034	1 ½	10	22
40		16	RV0BF1400	75	0.057	2	12	26
50		16	RV0BF1500	50	0.078	2 ¼	14	31
63		16	RV0BF1630	60	0.134	2 ¾	18	38
75	2 ½	16	RV0BF1750	125	0.205	3 ½	18	44
90		16	RV0BF1900	80	0.270	4	18	51
110		16	RV0BF1910	48	0.465	5	18	61

Union end PVC-U

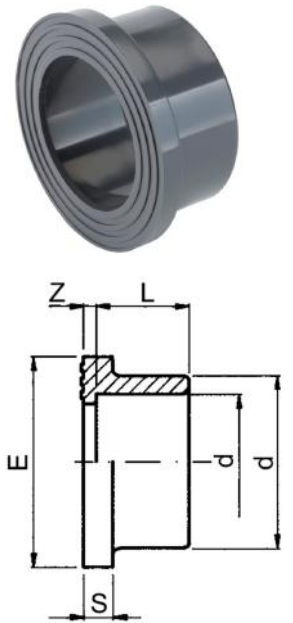
Suitable for BOI/BOP



d (mm)	d (inch)	PN (bar)	Code	SP	GP Weight (kg)	Z (mm)	d1 (mm)	L (mm)
16		16	RV0BLI160	10	1000	0.006	3	24.0
20		16	RV0BLI200	10	500	0.009	3	30.1
25		16	RV0BLI250	10	300	0.016	3	38.8
32		16	RV0BLI320	215	0	0.022	3	44.7
40		16	RV0BLI400	120	0	0.040	3	56.5
50		16	RV0BLI500	110	0	0.041	3	62.6
63		16	RV0BLI630	130	0	0.080	3	78.4
75	2 ½	16	RV0BLI750	165	0	0.150	3	97.2
90		16	RV0BLI900	100	0	0.195	5	110.0
110		16	RV0BLI910	66	0	0.350	5	135.4

Flange adaptor serrated PVC-U metric

• DN indicates the nominal diameter of the PVC pipe



d (mm)	d (inch)	DN (mm)	PN (bar)	Code	PF	SP	GP Weight (kg)	Z (mm)	L (mm)	E (mm)	S (mm)	
20		15	16	RV0QRI200	2 01 950 010	10	360	0.010	3	16	34	6
25		20	16	RV0QRI250	2 01 950 010	10	300	0.017	3	19	41	7
32		25	16	RV0QRI320	2 01 950 010	10	200	0.026	3	22	50	7
40		32	16	RV0QRI400	2 01 950 010	140	0	0.040	3	26	61	8
50		40	16	RV0QRI500	2 01 950 010	140	0	0.060	3	31	73	8
63		50	16	RV0QRI630	2 01 950 010	90	0	0.105	3	38	90	9
75	2 ½	65	16	RV0QRI750	2 01 950 010	50	0	0.170	3	44	106	10
90		80	16	RV0QRI900	2 01 950 010	38	0	0.279	5	51	125	11
110		100	16	RV0QRI910	2 01 950 010	24	0	0.444	5	61	150	12
125		110	16	RV0QRI920	2 01 950 010	25	0	0.560	5	69	168	13
140	5	125	16	RV0QRI930	2 01 950 010	20	0	0.750	5	76	188	14
160		150	16	RV0QRI940	2 01 950 010	15	0	1.030	5	86	213	16
200		200	16	RV0QRI960	2 01 950 010	8	0	2.000	7	106	254	18
225		200	10	RV0QRI970	2 01 950 010	6	0	1.775	7	119	274	19
250		250	10	RV0QRI980	2 01 950 013	4	0	2.325	10	131	307	20
315		300	10	RV0QRI991	2 01 950 010	3	0	4.834	11	164	379	27

Flat gasket

• (*) Traded items
Suitable for flange adaptor RV0QRI



d (mm)	EPDM Code	SP
*	16 2GRNPD160	10
*	20 2GRNPD200	10
*	25 2GRNPD250	10
*	32 2GRNPD320	10
*	40 2GRNPD400	10
*	50 2GRNPD500	10
*	63 2GRNPD630	10
*	75 2GRNPD750	10
*	90 2GRNPD900	10
*	110 2GRNPD910	10
*	125 2GRNPD920	10

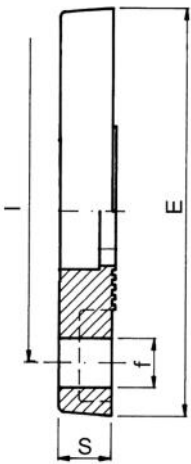
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	d (mm)	EPDM Code	SP
*	140	2GRNPD930	10
*	160	2GRNPD940	10
*	200	2GRNPD960	10
*	225	2GRNPD970	6

PF 2 01 950 010

Backing flange PVC-U metric

- (**) Special flange with bolt holes for DN 140
- **DN** indicates the nominal diameter of the PVC pipe
Bolt holes PN10

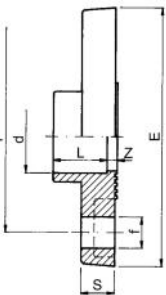


	d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	E (mm)	l (mm)	S (mm)	f (mm)
	20	15	16	RV0FLI200	120	0.067	95	65	11	14
	25	20	16	RV0FLI250	100	0.090	105	75	12	14
	32	25	16	RV0FLI320	50	0.116	115	85	14	14
	40	32	16	RV0FLI400	35	0.185	140	100	15	18
	50	40	16	RV0FLI500	70	0.215	150	110	16	18
	63	50	16	RV0FLI630	45	0.300	165	125	18	18
	75	65	16	RV0FLI750	50	0.355	185	145	19	18
	90	80	16	RV0FLI900	38	0.435	200	160	20	18
	110	100	16	RV0FLI910	24	0.520	220	180	22	18
	125	110	16	RV0FLI920	25	0.570	230	190	24	18
	**	125	16	RV0FAI920	20	0.819	250	210	26	18
	140	125	16	RV0FLI930	20	0.700	250	210	26	18
	160	150	16	RV0FLI940	15	0.975	285	240	28	22
	200	200	10	RV0FLI960	8	1.230	340	295	30	22
	225	200	10	RV0FLI970	6	1.315	340	295	30	22

PF 2 01 950 010

Fixed flange PVC-U metric

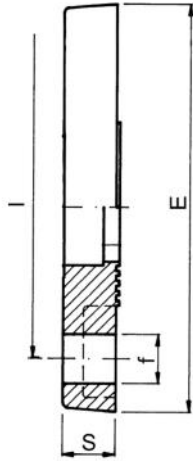
- **DN** indicates the nominal diameter of the PVC pipe



	d (mm)	d (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	L (mm)	S (mm)	f (mm)	E (mm)	l (mm)	Z (mm)
	20		15	16	RV0FFI200	100	0.070	16	11	14	95	65	4.5
	25		20	16	RV0FFI250	70	0.105	19	12	14	105	75	4.5
	32		25	16	RV0FFI320	120	0.145	22	14	14	115	85	4.5
	40		32	16	RV0FFI400	60	0.220	26	15	18	140	100	4.5
	50		40	16	RV0FFI500	50	0.270	31	16	18	150	110	4.5
	63		50	16	RV0FFI630	40	0.380	38	18	18	165	125	4.5
	75	2 1/2	65	16	RV0FFI750	20	0.505	44	19	18	185	145	6.0
	90		80	16	RV0FFI900	15	0.685	51	20	18	200	160	7.0
	110		100	16	RV0FFI910	10	0.940	61	22	18	220	180	8.0
	125		110	10	RV0FFI920	6	1.033	69	24	18	230	190	7.0
	140	5	125	10	RV0FFI930	6	1.335	76	26	18	250	210	7.0
	160		140	10	RV0FFI940	5	1.853	86	28	18	285	240	7.0

PF 2 01 950 010

Blind flange PVC-U metric



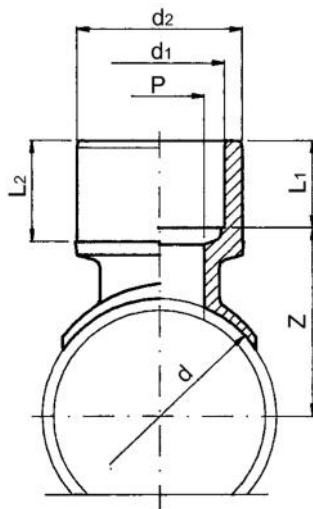
Bolt holes PN10

• **DN** indicates the nominal diameter of the PVC pipe

d (mm)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	f (mm)	S (mm)	l (mm)	E (mm)
20	15	16	RV0FCI200	120	0.073	14	11	65	95
25	20	16	RV0FCI250	100	0.095	14	12	75	105
32	25	16	RV0FCI320	140	0.135	14	14	85	115
40	32	16	RV0FCI400	100	0.220	18	15	100	140
50	40	16	RV0FCI500	70	0.270	18	16	110	150
63	50	16	RV0FCI630	50	0.370	18	18	125	165
75	65	16	RV0FCI750	45	0.495	18	19	145	185
90	80	16	RV0FCI900	38	0.630	18	20	160	200
110	100	16	RV0FCI910	25	0.840	18	22	180	220
125	110	16	RV0FCI920	20	0.890	18	24	190	230
140	125	16	RV0FCI930	18	1.000	18	26	210	250
160	150	16	RV0FCI940	14	1.620	22	28	240	285
200	200	10	RV0FCI960	8	2.480	22	30	295	340
225	200	10	RV0FCI970	8	2.480	22	30	295	340

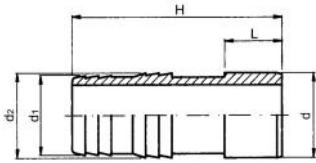
PF 2 01 950 011

Saddle socket M/F PVC-U metric



d (mm)	d1 (mm)	d2 (mm)	PN (bar)	Code	SP	GP	Weight (kg)	Z (mm)	L2 (mm)	P (mm)	L1 (mm)
50	20	25	10	DV0DEI50B	15	150	0.012	43	19	14	16
50	32	40	10	DV0DEI50D	10	50	0.035	45	26	24	22
63	20	25	10	DV0DEI63B	15	150	0.013	49	19	14	16
63	25	32	10	DV0DEI63C	10	100	0.021	50	22	19	19
63	32	40	10	DV0DEI63D	10	50	0.035	51	26	24	22
75	50	63	10	DV0DEI75F	12	0	0.101	63	38	38	31
90	50	63	10	DV0DEI90F	12	0	0.108	71	38	38	31
90	63	75	10	DV0DEI90G	12	0	0.142	70	44	48	38
110	40	50	10	DV0DEI91E	30	0	0.058	78	31	30	26
110	50	63	10	DV0DEI91F	12	0	0.108	81	38	38	31
110	63	75	10	DV0DEI91G	12	0	0.137	80	44	48	38
125	50	63	10	DV0DEI92F	12	0	0.108	88	38	38	31
140	40	50	10	DV0DEI93E	30	0	0.059	93	31	30	26
140	63	75	10	DV0DEI93G	12	0	0.140	95	44	48	38
160	63	75	10	DV0DEI94G	12	0	0.137	105	44	48	38
200	63	75	10	DV0DEI96G	12	0	0.137	125	44	48	38
225	63	75	10	DV0DEI97G	12	0	0.137	138	44	48	38

Solvent cement hose adaptor PVC-U

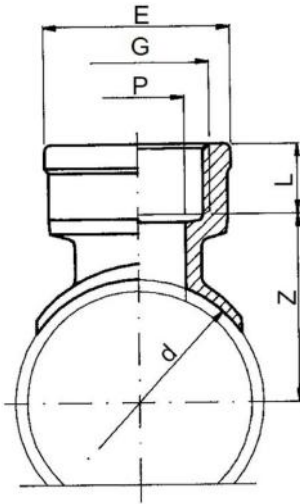


d-d2-d1 (mm)	PN (bar)	Code	SP	GP	Weight (kg)	d2 (mm)	d1 (mm)	H (mm)	L (mm)
16 - 18 - 16	16	RV0PGI160	10	400	0.007	18	16	60	14
20 - 22 - 20	16	RV0PGI200	10	300	0.013	22	20	67	16
25 - 27 - 25	16	RV0PGI250	10	200	0.021	27	25	74	19
32 - 32 - 30	16	RV0PGI320	10	130	0.032	32	30	80	22
40 - 42 - 40	16	RV0PGI400	100	0	0.055	42	40	92	26
50 - 52 - 50	16	RV0PGI500	100	0	0.081	52	50	101	31
63 - 64 - 60	16	RV0PGI630	60	0	0.142	64	60	111	38

PVC-U fittings B.S.P. threaded range

PF 2 01 950 011

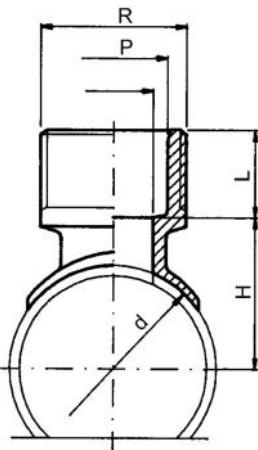
Saddle with female thread G PVC-U



d (mm)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	P (mm)	E (mm)	L (mm)	Z (mm)
32	1/4	10	DV0DEF32Z	15	150	0.010	11	24.2	12.9	28.9
32	3/8	10	DV0DEF32A	15	150	0.015	11	24.2	12.9	28.9
40	3/8	10	DV0DEF40A	15	150	0.009	11	24.2	14.0	32.0
50	1/2	10	DV0DEF50Z	15	150	0.010	11	24.2	12.9	37.9
50	3/4	10	DV0DEF50A	15	150	0.015	11	24.2	14.0	37.0
50	1/2	10	DV0DEF50B	15	150	0.015	14	30.0	15.0	42.0
50	3/4	10	DV0DEF50C	10	100	0.024	19	36.0	16.3	43.0
63	3/8	10	DV0DEF63A	15	150	0.015	11	24.2	14.0	43.5
63	1/2	10	DV0DEF63B	10	150	0.015	14	30.0	15.0	48.0
63	3/4	10	DV0DEF63C	10	100	0.023	19	36.0	16.3	49.0
75	3/8	10	DV0DEF75A	15	150	0.016	11	24.2	14.0	49.5
75	1/2	10	DV0DEF75C	10	100	0.023	19	36.0	16.3	55.0
75	1	10	DV0DEF75D	10	50	0.036	24	45.0	19.1	56.0
90	1/2	10	DV0DEF90B	15	150	0.013	14	30.0	15.0	62.0
90	1	10	DV0DEF90D	10	50	0.037	24	45.0	19.1	64.0
90	1 1/2	10	DV0DEF90F	24	0	0.095	38	64.0	21.4	66.0
110	1/2	10	DV0DEF91B	15	150	0.010	14	30.0	15.0	72.0

PF 2 01 950 011

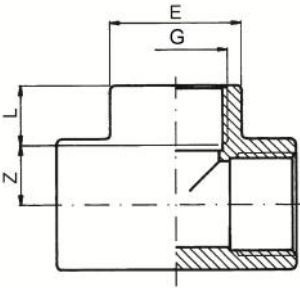
Saddle with male thread R PVC-U



d (mm)	R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L (mm)	P (mm)	H (mm)
50	1/2	10	DV0DMF50B	15	150	0.012	15.0	14	42
90	1 1/2	10	DV0DMF90F	12	0	0.065	21.4	38	66
110	1	10	DV0DMF91D	10	50	0.036	19.1	24	74
140	1 1/2	10	DV0DMF93F	12	0	0.060	21.4	38	91

PF 2 01 951 010

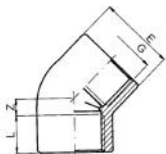
Threaded tee 90° G PVC-U



G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L (mm)	Z (mm)	E (mm)
3/8	16	RV0TIF160	10	280	0.018	11.4	11.6	23
1/2	16	RV0TIF200	10	150	0.029	15.0	12.0	28
3/4	16	RV0TIF250	10	100	0.050	16.3	16.7	34
1	16	RV0TIF320	10	130	0.076	19.1	19.9	42
1 1/4	16	RV0TIF400	90	0	0.125	21.4	25.6	51
1 1/2	16	RV0TIF500	50	0	0.240	21.4	35.6	61
2	16	RV0TIF630	25	0	0.435	25.7	45.3	75
1 1/2	16	RV0TIF750	35	0	0.575	30.2	52.8	89
3	16	RV0TIF900	24	0	0.965	33.3	64.7	106
4	16	RV0TIF910	14	0	1.310	39.3	75.7	129

PF 2 01 951 010

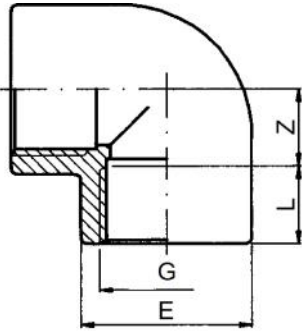
Threaded elbow 45° G PVC-U



G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	Z (mm)	L (mm)	E (mm)
3/8	16	RV0GYF160	10	400	0.010	11.6	11.4	23
1/2	16	RV0GYF200	10	260	0.018	12.0	15.0	28
3/4	16	RV0GYF250	10	150	0.031	16.7	16.3	34
1	16	RV0GYF320	10	100	0.051	19.9	19.1	42
1 1/4	16	RV0GYF400	80	0	0.075	25.6	21.4	51
1 1/2	16	RV0GYF500	100	0	0.155	35.6	21.4	61
2	16	RV0GYF630	50	0	0.275	45.3	25.7	75
1 1/2	16	RV0GYF750	65	0	0.360	52.8	30.2	89
3	16	RV0GYF900	40	0	0.620	64.7	33.3	106
4	16	RV0GYF910	22	0	0.830	78.7	39.3	129

PF 2 01 951 010

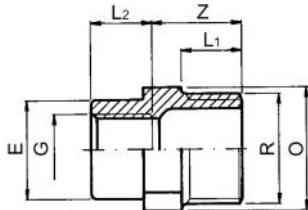
Threaded elbow 90° G PVC-U



G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	E (mm)	Z (mm)	L (mm)
3/8	16	RV0GOF160	10	360	0.015	23	44.6	11.4
1/2	16	RV0GOF200	10	200	0.022	28	12.0	15.0
3/4	16	RV0GOF250	10	160	0.037	34	16.7	16.3
1	16	RV0GOF320	10	80	0.059	42	19.9	19.1
1 1/4	16	RV0GOF400	130	0	0.094	51	25.6	21.4
1 1/2	16	RV0GOF500	80	0	0.184	61	35.6	21.4
2	16	RV0GOF630	40	0	0.320	75	45.3	25.7
2 1/2	16	RV0GOF750	50	0	0.425	89	52.8	30.2
3	16	RV0GOF900	30	0	0.770	106	64.7	33.3
4	16	RV0GOF910	17	0	1.050	129	78.7	39.3

PF 2 01 951 010

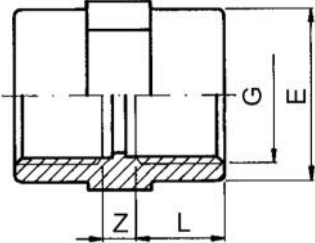
Threaded reducer R/G PVC-U



R (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	O (mm)	Z (mm)	L1 (mm)	L2 (mm)	E (mm)
1/2	3/8	16	RV0RIF20A	10	400	0.012	24	24	15.0	11.4	32
3/4	3/8	16	RV0RIF25A	10	280	0.016	30	25	16.3	11.4	23
3/4	1/2	16	RV0RIF25B	10	280	0.018	30	26	16.3	15.0	28
1	3/8	16	RV0RIF32A	10	160	0.024	36	28	19.1	11.4	23
1	1/2	16	RV0RIF32B	10	160	0.026	36	29	19.1	15.0	28
1	3/4	16	RV0RIF32C	10	160	0.026	36	30	19.1	16.3	34
1 1/4	1/2	16	RV0RIF40B	150	0	0.042	46	33	21.4	15.0	28
1 1/4	3/4	16	RV0RIF40C	150	0	0.045	46	33	21.4	16.3	34
1 1/4	1	16	RV0RIF40D	150	0	0.047	46	33	21.4	19.1	42
1 1/2	3/4	16	RV0RIF50C	120	0	0.050	50	34	21.4	16.3	34
1 1/2	1	16	RV0RIF50D	100	0	0.050	50	34	21.4	19.1	42
1 1/2	1 1/4	16	RV0RIF50E	100	0	0.060	55	34	21.4	21.4	51
2	1	16	RV0RIF63D	140	0	0.086	65	37	25.7	19.1	42
2	1 1/4	16	RV0RIF63E	140	0	0.085	65	37	25.7	21.4	51
2	1 1/2	16	RV0RIF63F	130	0	0.087	65	37	25.7	21.4	58
2 1/2	1 1/4	16	RV0RIF75E	170	0	0.140	80	43	30.2	21.4	51
2 1/2	1 1/2	16	RV0RIF75F	170	0	0.138	80	43	30.2	21.4	58
2 1/2	2	16	RV0RIF75G	150	0	0.142	80	43	30.2	25.7	72
3	1 1/2	16	RV0RIF90F	150	0	0.200	95	47	33.3	21.4	58
3	2	16	RV0RIF90G	125	0	0.205	95	47	33.3	25.7	72
3	2 1/2	16	RV0RIF90H	115	0	0.215	95	47	33.3	30.2	89
4	2	16	RV0RIF91G	85	0	0.330	120	53	39.3	25.7	72
4	2 1/2	16	RV0RIF91H	42	0	0.330	120	53	39.3	30.2	89
4	3	16	RV0RIF91I	60	0	0.350	120	53	39.3	33.3	103

PF 2 01 951 010

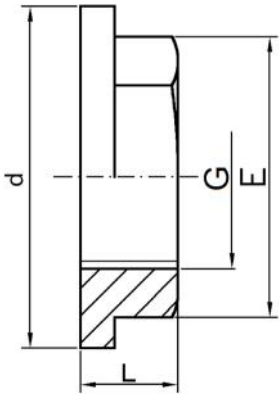
Threaded double socket G PVC-U



G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	Z (mm)	L (mm)	E (mm)
3/8	16	RV0MAF160	10	500	0.008	6	11.4	23
1/2	16	RV0MAF200	10	250	0.017	7	15.0	28
3/4	16	RV0MAF250	10	180	0.024	7	16.3	34
1	16	RV0MAF320	10	130	0.042	8	19.1	42
1 1/4	16	RV0MAF400	220	0	0.060	8	21.4	51
1 1/2	16	RV0MAF500	180	0	0.073	8	21.4	58
2	16	RV0MAF630	100	0	0.123	8	25.7	72
2 1/2	16	RV0MAF750	120	0	0.200	9	30.2	89
3	16	RV0MAF900	84	0	0.280	10	33.3	103
4	16	RV0MAF910	44	0	0.441	11	39.3	130
6	16	RV0MAF940	9	0	1.400	84	48.0	182

PF 2 01 950 013

Threaded nut G PVC-U

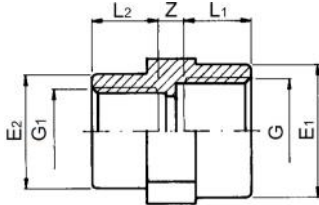


- (*) Traded items

G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	d (mm)	L (mm)	E (mm)
*	1/2	16 RV0DAF200	10	800	0.009	38	13	29
*	3/4	16 RV0DAF250	10	1250	0.011	43	14	34
*	1	16 RV0DAF320	10	600	0.026	56	16	46
*	1 1/4	16 RV0DAF400	10	450	0.029	65	18	50
*	1 1/2	16 RV0DAF500	300	0	0.043	72	19	60
*	2	16 RV0DAF630	150	0	0.089	94	21	80
*	2 1/2	16 RV0DAF750	120	0	0.094	115	24	94
*	3	16 RV0DAF900	80	0	0.138	130	27	108
*	4	16 RV0DAF910	45	0	0.205	162	30	135

PF 2 01 951 010

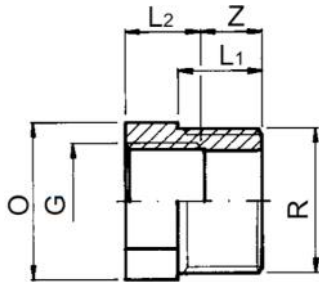
Threaded reducing socket G PVC-U



G (inch)	G1 (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L2 (mm)	L1 (mm)	E1 (mm)	E2 (mm)	Z (mm)
½	¾	16	RV0MRF20A	10	250	0.017	11.4	15.0	28.0	23.0	6
¾	1½	16	RV0MRF25B	10	200	0.024	15.0	16.3	34.0	28.0	7
1	¾	16	RV0MRF32C	10	120	0.040	16.3	19.1	42.0	34.0	7
1 ¼	1	16	RV0MRF40D	190	0	0.060	19.1	21.4	51.0	42.0	8
1 ½	1 ¼	16	RV0MRF50E	165	0	0.072	21.4	21.4	58.0	51.0	8
2	1 ¼	16	RV0MRF63F	80	0	0.115	21.4	25.7	72.0	58.0	8
2 ½	2	16	RV0MRF75G	130	0	0.128	25.7	30.2	89.0	72.0	8
3	2 ½	16	RV0MRF90H	80	0	0.286	30.2	33.3	103.0	89.0	9
4	3	16	RV0MRF91I	54	0	0.436	33.3	39.3	130.0	103.0	10

PF 2 01 951 010

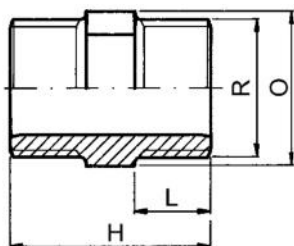
Threaded reducing bush R/G PVC-U



R (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	O (mm)	L1 (mm)	L2 (mm)	Z (mm)
¾	½	16	RV0RCF25B	10	300	0.013	30	16.3	15.0	13.3
1	¾	16	RV0RCF32C	10	250	0.019	36	19.1	16.3	14.8
1 ¼	1	16	RV0RCF40D	200	0	0.033	46	21.4	19.1	16.3
1 ½	1 ¼	16	RV0RCF50E	160	0	0.028	50	21.4	21.4	14.0
2	1 ½	16	RV0RCF63F	200	0	0.067	65	25.7	21.4	18.3
2 ½	2	16	RV0RCF75G	200	0	0.135	80	30.2	25.7	20.5
3	2 ½	16	RV0RCF90H	165	0	0.160	95	33.3	30.2	20.1
4	3	16	RV0RCF91I	90	0	0.290	120	39.3	33.3	24.0

PF 2 01 951 010

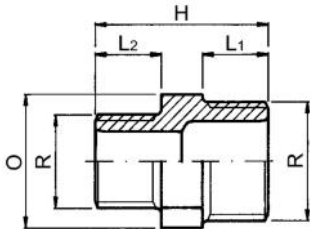
Threaded nipple R PVC-U



R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	L (mm)	O (mm)
¾	16	RV0NIF160	10	600	0.007	33	11.4	22
½	16	RV0NIF200	10	400	0.011	42	15.0	24
¾	16	RV0NIF250	10	280	0.018	44	16.3	30
1	16	RV0NIF320	10	160	0.028	50	19.1	36
1 ¼	16	RV0NIF400	130	0	0.049	58	21.4	46
1 ½	16	RV0NIF500	90	0	0.051	58	21.4	50
2	16	RV0NIF630	125	0	0.095	66	25.7	65
2 ½	16	RV0NIF750	140	0	0.142	76	30.2	80
3	16	RV0NIF900	90	0	0.221	85	33.3	95
4	16	RV0NIF910	45	0	0.345	96	39.3	120

PF 2 01 951 010

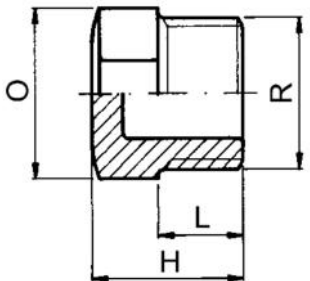
Threaded reducing nipple R PVC-U



R-R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L1 (mm)	L2 (mm)	H (mm)	O (mm)
½ - ¾	16	RV0NRF20A	10	400	0.011	15.0	11.4	38	24
¾ - 1	16	RV0NRF25B	10	280	0.017	16.3	15.0	43	30
1 - 1 ¼	16	RV0NRF32C	10	180	0.026	19.1	16.3	47	36
1 ¼ - 1 ½	16	RV0NRF40D	150	0	0.043	21.4	19.1	56	46
1 ½ - 2	16	RV0NRF50E	100	0	0.048	21.4	21.4	58	50
2 - 2 ½	16	RV0NRF63F	130	0	0.081	25.7	21.4	62	65
2 ½ - 3	16	RV0NRF75G	110	0	0.140	30.2	25.7	73	80
3 - 3 ½	16	RV0NRF90H	50	0	0.208	33.3	30.2	82	95
4 - 4 ½	16	RV0NRF91I	36	0	0.339	39.3	33.3	90	120

PF 2 01 951 010

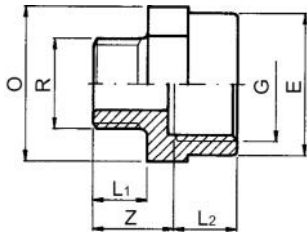
Threaded plug R PVC-U



R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	O (mm)	L (mm)
¾	16	RV0TAF160	10	700	0.008	24	22	11.4
1	16	RV0TAF200	10	500	0.009	29	24	15.0
1 ¼	16	RV0TAF250	10	320	0.016	30	30	16.3
1 ½	16	RV0TAF320	10	250	0.023	33	36	19.1
2	16	RV0TAF400	200	0	0.041	39	46	21.4
2 ½	16	RV0TAF500	150	0	0.045	39	50	21.4
3	16	RV0TAF630	180	0	0.080	43	65	25.7
3 ½	16	RV0TAF750	100	0	0.140	51	80	30.2
4	16	RV0TAF900	65	0	0.210	55	95	33.3
4 ½	16	RV0TAF910	40	0	0.340	61	120	39.3

PF 2 01 951 010

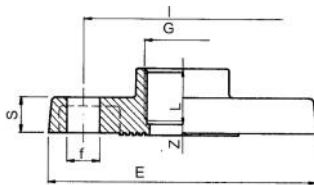
Threaded increaser R/G PVC-U



R (inch)	G (inch)	PN (bar)	Code	SP	Weight (kg)	L1 (mm)	L2 (mm)	O (mm)	Z (mm)	E (mm)
3/8	1/2	16	RV0MGF16B	500	0.016	11.4	15.0	30	22	28
1/2	3/4	16	RV0MGF20C	300	0.020	15.0	16.3	36	24	34
3/4	1	16	RV0MGF25D	350	0.037	16.3	19.1	46	26	42
1	1 1/4	16	RV0MGF32E	250	0.059	19.1	21.4	55	30	51
1 1/4	1 1/2	16	RV0MGF40F	180	0.074	21.4	21.4	60	33	58
1 1/2	2	16	RV0MGF50G	100	0.113	21.4	25.7	75	34	72
2	2 1/2	16	RV0MGF63H	60	0.187	25.7	30.2	90	38	89
2 1/2	3	16	RV0MGF75I	54	0.262	30.2	33.3	105	44	103
3	4	16	RV0MGF90L	34	0.416	33.3	39.3	130	48	128

PF 2 01 951 010

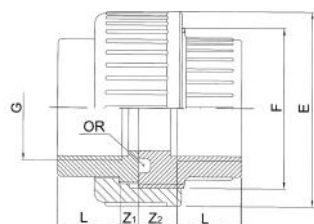
Threaded fixed flange G PVC-U



G (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)	Z (mm)	E (mm)	l (mm)	S (mm)	f (mm)	L (mm)
1/2	15	16	RV0FFF200	100	0.070	5.5	95	65	11	14	15.0
3/4	20	16	RV0FFF250	70	0.105	7.5	105	75	12	14	16.3
1	25	16	RV0FFF320	120	0.148	7.5	115	85	14	14	19.1
1 1/4	32	16	RV0FFF400	60	0.220	9.0	140	100	15	18	21.4
1 1/2	40	16	RV0FFF500	50	0.285	14.0	150	110	16	18	21.4
2	50	16	RV0FFF630	40	0.420	17.0	165	125	18	18	25.7
2 1/2	65	16	RV0FFF750	20	0.520	20.0	185	145	19	18	30.2
3	80	16	RV0FFF900	15	0.735	25.0	200	160	20	18	30.3
4	100	16	RV0FFF910	10	0.923	30.0	220	180	22	18	39.9

PF 2 01 951 010

Threaded union G with o-ring PVC-U

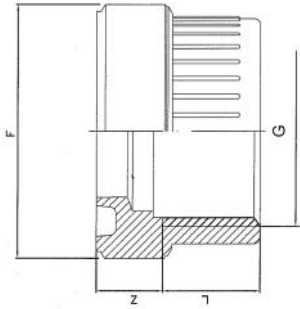


G (inch)	PN (bar)	EPDM Code	SP	GP	Weight (kg)	E (mm)	Z1 (mm)	Z2 (mm)	L (mm)	F (inch)
3/8	16	RV0BOF160	10	250	0.027	34.0	5.6	13.6	11	3/4
1/2	16	RV0BOF200	10	150	0.042	42.0	4.0	11.0	15	1
3/4	16	RV0BOF250	10	100	0.068	52.0	5.7	12.7	16	1 1/4
1	16	RV0BOF320	10	60	0.095	59.0	5.9	12.9	19	1 1/2
1 1/4	16	RV0BOF400	90	0	0.165	72.0	7.6	16.6	21	2
1 1/2	16	RV0BOF500	60	0	0.230	79.0	12.6	23.6	21	2 1/4
2	16	RV0BOF630	36	0	0.410	96.0	15.3	30.3	26	2 3/4
2 1/2	16	RV0BOF750	20	0	0.600	119.0	16.8	31.8	30	3 1/2
3	16	RV0BOF900	15	0	0.770	134.0	22.7	35.7	33	4
4	16	RV0BOF910	18	0	1.280	163.0	26.7	39.7	39	5

PF 2 01 951 010

Union bush G PVC-U

Suitable for BOF/BOP

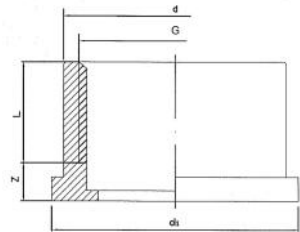


G (inch)	PN (bar)	Code	SP	Weight (kg)	F (inch)	Z (mm)	L (mm)
3/8	16	RV0BFF160	600	0.010	3/8	13.6	11.4
1/2	16	RV0BFF200	300	0.016	1	11.0	15.0
3/4	16	RV0BFF250	180	0.027	1 1/4	12.7	16.3
1	16	RV0BFF320	500	0.036	1 1/2	12.9	19.1
1 1/4	16	RV0BFF400	160	0.060	2	16.6	21.4
1 1/2	16	RV0BFF500	50	0.104	2 1/4	23.6	21.4
2	16	RV0BFF630	60	0.168	2 3/4	30.3	25.7
2 1/2	16	RV0BFF750	125	0.235	3 1/2	31.8	30.2
3	16	RV0BFF900	80	0.335	4	35.7	33.3
4	16	RV0BFF910	48	0.470	5	39.7	39.3

PF 2 01 951 010

Union end G PVC-U

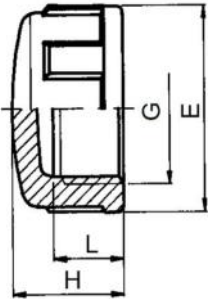
Suitable for BOF



G (inch)	PN (bar)	Code	SP	Weight (kg)	d (mm)	L (mm)	d1 (mm)	Z (mm)
3/8	16	RV0BLF160	1000	0.007	22.0	11.4	24.0	5.6
1/2	16	RV0BLF200	600	0.010	27.5	15.0	30.1	4.0
3/4	16	RV0BLF250	300	0.017	36.0	16.3	38.8	5.7
1	16	RV0BLF320	650	0.023	41.5	19.1	44.7	5.9
1 1/4	16	RV0BLF400	125	0.042	53.0	21.4	56.5	7.6
1 1/2	16	RV0BLF500	85	0.065	59.0	21.4	62.6	12.6
2	16	RV0BLF630	45	0.120	74.0	25.7	78.4	15.3
2 1/2	16	RV0BLF750	165	0.160	92.5	30.2	97.2	16.8
3	16	RV0BLF900	100	0.235	105.0	33.3	110.0	22.7
4	16	RV0BLF910	66	0.340	129.0	39.3	135.4	26.7

PF 2 01 951 010

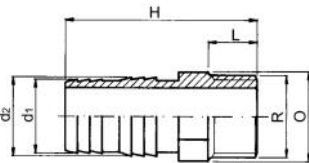
Threaded cap G PVC-U



G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L (mm)	H (mm)	E (mm)
3/8	16	RV0CAF160	10	600	0.008	11.4	22.0	23
1/2	16	RV0CAF200	10	500	0.008	15.0	21.0	28
3/4	16	RV0CAF250	10	400	0.013	16.3	23.0	34
1	16	RV0CAF320	10	250	0.022	19.1	26.0	42
1 1/4	16	RV0CAF400	160	0	0.035	21.4	29.0	51
1 1/2	16	RV0CAF500	80	0	0.050	21.4	32.0	61
2	16	RV0CAF630	50	0	0.080	25.7	37.0	75
2 1/2	16	RV0CAF750	90	0	0.190	30.2	50.0	89
3	16	RV0CAF900	60	0	0.270	33.3	53.0	103
4	16	RV0CAF910	34	0	0.435	39.3	59.0	130

PF 2 01 951 010

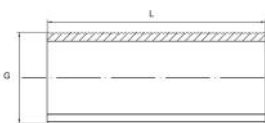
Threaded hose adaptor R PVC-U



R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	O (mm)	L (mm)	H (mm)	d1 (mm)	d2 (mm)
3/8	16	RV0PGF160	10	400	0.009	22	11.4	56.0	16	18
1/2	16	RV0PGF200	10	280	0.016	24	15.0	66.0	20	22
3/4	16	RV0PGF250	10	180	0.024	30	16.3	71.3	25	27
1	16	RV0PGF320	10	130	0.035	36	19.1	77.1	30	32
1 1/4	16	RV0PGF400	85	0	0.061	46	21.4	87.4	40	42
1 1/2	16	RV0PGF500	130	0	0.074	50	21.4	91.4	50	52
2	16	RV0PGF630	70	0	0.126	65	25.7	98.7	60	64

PF 2 01 950 013

Threaded Bar



R (inch)	Code	SP	GP	Weight (kg)	L (mm)	L1 (mm)	Z (mm)	H (mm)
1/2	RV0BAF200	10	320	0.012	60	39	25	21
3/4	RV0BAF250	10	240	0.018	60	30	40	40
1	RV0BAF320	10	260	0.036	80	30	40	40
1 1/4	RV0BAF400	160	0	0.053	80	30	40	40
1 1/2	RV0BAF500	100	0	0.071	80	30	40	40
2	RV0BAF630	60	0	0.125	100	30	40	40
2 1/2	RV0BAF750	50	0	0.153	120	30	40	40
3	RV0BAF900	60	0	0.295	150	40	40	60
4	RV0BAF910	30	0	0.455	150	40	40	60

PF 2 01 950 013

Tank Adaptor



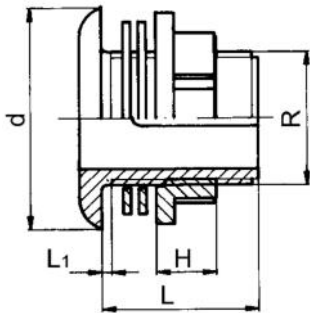
R (inch)	Code	SP	GP	Weight (kg)	L (mm)
½	RV0TAK200	1	150	0.033	60
¾	RV0TAK250	1	100	0.045	60
1	RV0TAK320	1	60	0.093	80
1 ¼	RV0TAK400	1	50	0.119	80
1 ½	RV0TAK500	1	40	0.163	80
2	RV0TAK630	1	30	0.311	100
2 ½	RV0TAK750	1	20	0.361	120
3	RV0TAK900	1	16	0.671	150
4	RV0TAK910	1	12	0.975	150

PF 2 01 951 010

Tank connector R PP



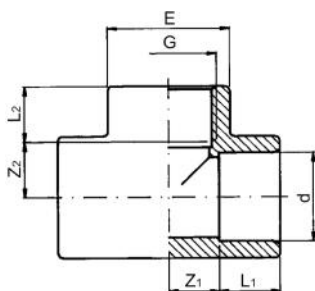
R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	L1 (mm)	D (mm)	L (mm)
½	10	RP0ATS200	10	400	0.019	18	4	41.0	47
¾	10	RP0ATS250	10	300	0.028	18	4	49.0	47
1	10	RP0ATS320	10	180	0.038	18	5	58.0	49
1 ¼	10	RP0ATS400	10	120	0.057	18	5	70.0	49
1 ½	10	RP0ATS500	10	150	0.056	25	9	79.5	49



PVC-U adaptor fittings range

PF 2 01 951 011

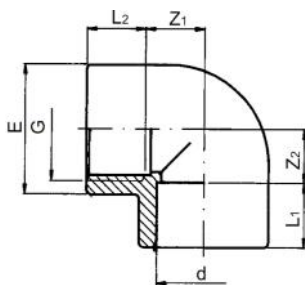
Threaded central offtake tee G PVC-U



d (mm)	d (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L2 (mm)	Z2 (mm)	E (mm)	Z1 (mm)	L1 (mm)
16		3/8	16	RV0TIP16A	10	280	0.017	11.4	11.6	23	9	14
20		1/2	16	RV0TIP20B	10	150	0.028	15.0	12.0	28	11	16
25		3/4	16	RV0TIP25C	10	100	0.046	16.3	16.7	34	14	19
32		1	16	RV0TIP32D	10	130	0.076	19.1	19.9	42	17	22
40		1 1/4	16	RV0TIP40E	90	0	0.120	21.4	25.6	51	21	26
50		1 1/2	16	RV0TIP50F	50	0	0.200	21.4	35.6	61	26	31
63		2	16	RV0TIP63G	25	0	0.355	25.7	45.3	75	33	38
75	2 1/2	2 1/2	16	RV0TIP75H	35	0	0.540	30.2	52.8	89	39	44
90		3	16	RV0TIP90I	24	0	0.850	33.3	64.7	106	47	51
110		4	16	RV0TIP91L	14	0	1.440	39.3	78.7	129	57	61

PF 2 01 951 011

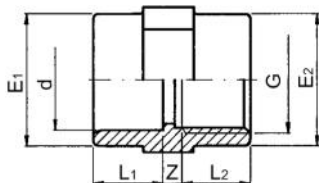
Plain/threaded elbow 90° G PVC-U



d (mm)	d (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	E (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Z1 (mm)
16		3/8	16	RV0GOP16A	10	360	0.013	23	12	14	11.4	9
20		1/2	16	RV0GOP20B	10	200	0.021	28	12	16	15.0	11
25		3/4	16	RV0GOP25C	10	160	0.034	34	17	19	16.3	14
32		1	16	RV0GOP32D	10	80	0.056	42	20	22	19.1	17
40		1 1/4	16	RV0GOP40E	130	0	0.093	51	26	26	21.4	21
50		1 1/2	16	RV0GOP50F	80	0	0.160	61	36	31	21.4	26
63		2	16	RV0GOP63G	40	0	0.275	75	45	38	25.7	33
75	2 1/2	2 1/2	16	RV0GOP75H	50	0	0.420	89	53	44	30.2	39
90		3	16	RV0GOP90I	30	0	0.710	106	65	51	33.3	47
110		4	16	RV0GOP91L	17	0	1.065	129	79	61	39.3	57

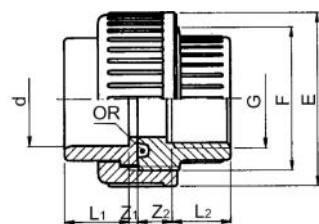
Plain/threaded socket G PVC-U

• (*) Without octagon



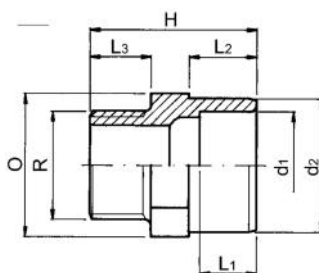
d (mm)	d (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	E2 (mm)	E1 (mm)	L1 (mm)	L2 (mm)	Z1 (mm)
16		3/8	16	RV0MAP16A	10	500	0.010	23	23	14	11.4	6
20		1/2	16	RV0MAP20B	10	250	0.017	28	28	16	15.0	6
25		3/4	16	RV0MAP25C	10	200	0.024	34	34	19	16.3	6
32		1	16	RV0MAP32D	10	130	0.042	42	42	22	19.1	6
40		1 1/4	16	RV0MAP40E	100	0	0.060	51	51	26	21.4	4
50		1 1/2	16	RV0MAP50F	60	0	0.087	58	61	31	21.4	7
63		2	16	RV0MAP63G	80	0	0.134	72	75	38	25.7	7
75	2 1/2	2 1/2	16	RV0MAP75H	110	0	0.215	89	89	44	30.2	8
90		3	16	RV0MAP90I	64	0	0.345	103	106	51	33.3	9
110		4	16	RV0MAP91L	35	0	0.550	130	129	61	39.3	10
*	125	5	16	RV0MAP92N	16	0	1.060		160	69	43.6	51
*	140	5	16	RV0MAP93N	9	0	1.120		162	76	43.6	40
*	160	6	16	RV0MAP94O	9	0	1.400		184	86	48.0	46

Plain/threaded union with o-ring G PVC-U



d (mm)	d (inch)	G (inch)	PN (bar)	EPDM Code	SP	GP	Weight (kg)	E (mm)	F (inch)	Z2 (mm)	L1 (mm)	L2 (mm)	Z1 (mm)
16		3/8	16	RV0BOP16A	10	250	0.031	34	3/4	13.6	14	11.4	3
20		1/2	16	RV0BOP20B	10	150	0.042	42	1	11.0	16	15.0	3
25		3/4	16	RV0BOP25C	10	100	0.070	52	1 1/4	12.7	19	16.3	3
32		1	16	RV0BOP32D	10	60	0.094	59	1 1/2	12.9	22	19.1	3
40		1 1/4	16	RV0BOP40E	90	0	0.155	72	2	16.6	26	21.4	3
50		1 1/2	16	RV0BOP50F	60	0	0.237	79	2 1/4	23.6	31	21.4	3
63		2	16	RV0BOP63G	36	0	0.382	96	2 3/4	30.3	38	25.7	3
75	2 1/2	2 1/2	16	RV0BOP75H	20	0	0.625	119	3 1/2	31.8	44	30.2	3
90		3	16	RV0BOP90I	15	0	0.865	134	4	35.7	51	33.3	5
110		4	16	RV0BOP91L	18	0	1.340	163	5	39.7	61	39.3	5

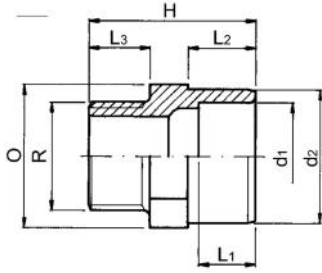
Threaded adaptor R PVC-U 3 diameters



d1-d2 (mm)	R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	O (mm)	L3 (mm)	L1 (mm)	H (mm)	L2 (mm)
12 - 16	3/8	16	RV0AMP12A	10	600	0.008	22	11.4		36	14
16 - 20	3/8	16	RV0AMP16A	10	500	0.009	24	11.4	14	40	16
16 - 20	1/2	16	RV0AMP16B	10	400	0.010	24	15.0	14	43	16
20 - 25	3/8	16	RV0AMP20A	10	300	0.014	30	11.4	16	43	19
20 - 25	1/2	16	RV0AMP20B	10	300	0.014	30	15.0	16	46	19
20 - 25	3/4	16	RV0AMP20C	10	300	0.015	30	16.3	16	47	19
25 - 32	1/2	16	RV0AMP25B	10	200	0.025	36	15.0	19	49	22
25 - 32	3/4	16	RV0AMP25C	10	200	0.026	36	16.3	19	50	22
25 - 32	1	16	RV0AMP25D	10	200	0.029	36	19.1	19	53	22
32 - 40	3/4	16	RV0AMP32C	10	140	0.036	42	16.3	22	54	26
32 - 40	1	16	RV0AMP32D	10	120	0.040	42	19.1	22	57	26
32 - 40	1 1/4	16	RV0AMP32E	10	100	0.049	46	21.4	22	60	26
40 - 50	1	16	RV0AMP40D	90	0	0.070	55	19.1	26	64	31
40 - 50	1 1/4	16	RV0AMP40E	50	0	0.075	55	21.4	26	67	31
40 - 50	1 1/2	16	RV0AMP40F	80	0	0.074	55	21.4	26	67	31
50 - 63	1 1/4	16	RV0AMP50E	50	0	0.115	65	21.4	31	74	38
50 - 63	1 1/2	16	RV0AMP50F	110	0	0.113	65	21.4	31	74	38
50 - 63	2	16	RV0AMP50G	100	0	0.125	65	25.7	31	78	38

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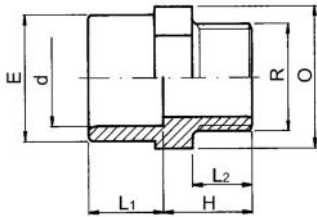
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d1-d2 (mm)	R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	O (mm)	L3 (mm)	L1 (mm)	H (mm)	L2 (mm)
63 - 75	1 ½	16	RV0AMP63F	35	0	0.145	80	21.4	38	80	44
63 - 75	2	16	RV0AMP63G	70	0	0.150	80	25.7	38	84	44
63 - 75	2 ½	16	RV0AMP63H	50	0	0.170	80	30.2	38	91	44
75 - 90	2	16	RV0AMP75G	54	0	0.270	95	25.7	44	94	51
75 - 90	2 ½	16	RV0AMP75H	60	0	0.275	95	30.2	44	99	51
75 - 90	3	16	RV0AMP75I	36	0	0.285	95	33.3	44	102	51
90 - 110	2 ½	16	RV0AMP90H	25	0	0.470	115	30.2	51	110	61
90 - 110	3	16	RV0AMP90I	25	0	0.486	115	33.3	51	113	61
90 - 110	4	16	RV0AMP90L	16	0	0.485	115	39.3	51	118	61
110 - 125	3	10	RV0AMP91I	40	0	0.490	130	33.3	61	115	66
110 - 125	4	10	RV0AMP91L	32	0	0.492	130	39.3	61	120	66
110 - 125	5	10	RV0AMP91N	32	0	0.535	130	40.0	61	120	66
125 - 140	5	10	RV0AMP92N	24	0	0.740	140	74.0	69	145	71

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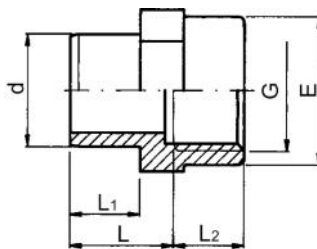
Threaded adaptor R PVC-U 2 diameters



d (mm)	R (inch)	PN (bar)	Code	SP	Weight (kg)	L2 (mm)	O (mm)	E (mm)	L1 (mm)	L (mm)
75	2 ½	16	RV0ADP75H	72	0.210	30.2	90	89	44	42
90	3	16	RV0ADP90I	40	0.336	33.3	110	106	51	46
110	4	16	RV0ADP91L	35	0.530	39.3	130	129	61	51

PF 2 01 951 011

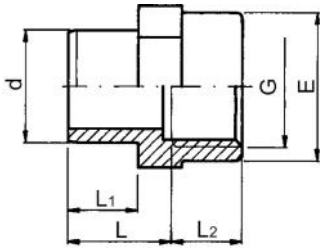
Threaded adaptor G PVC-U



d (mm)	d (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L (mm)	L1 (mm)	E (mm)	L2 (mm)
16		¾	16	RV0AFP16A	10	600	0.016	22	14	23	11.4
20		½	16	RV0AFP20B	10	300	0.017	24	16	28	15.0
20		¾	16	RV0AFP20C	10	240	0.024	24	16	34	16.3
25		½	16	RV0AFP25B	10	220	0.019	27	19	28	15.0
25		¾	16	RV0AFP25C	10	200	0.026	27	19	34	16.3
25		1	16	RV0AFP25D	10	140	0.039	27	19	42	19.1
32		¾	16	RV0AFP32C	10	180	0.032	30	22	34	16.3
32		1	16	RV0AFP32D	10	120	0.041	30	22	42	19.1
40		1	16	RV0AFP40D	100	0	0.050	36	26	42	19.1
40		1 ¼	16	RV0AFP40E	90	0	0.065	36	26	51	21.4
50		1 ¼	16	RV0AFP50E	70	0	0.070	41	31	51	21.4
50		1 ½	16	RV0AFP50F	60	0	0.080	41	31	58	21.4
50		2	16	RV0AFP50G	100	0	0.122	41	31	72	25.7
63		2	16	RV0AFP63G	80	0	0.135	48	38	72	25.7
75		2	16	RV0AFP75G	72	0	0.175	53	44	72	25.7
75	2 ½	2 ½	16	RV0AFP75H	90	0	0.225	58	44	89	30.2
75		3	16	RV0AFP75I	100	0	0.295	58	44	103	33.3
90		2 ½	16	RV0AFP90H	90	0	0.275	65	51	89	30.2

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PF 2 01 951 011



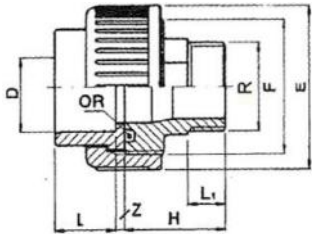
d (mm)	d (inch)	G (inch)	PN (bar)	Code	SP	GP Weight (kg)	L (mm)	L1 (mm)	E (mm)	L2 (mm)	
90		3	16	RV0AFP90I	60	0	0.310	65	51	103	33.3
90		4	16	RV0AFP90L	52	0	0.450	65	51	130	39.3
110		3	16	RV0AFP91I	45	0	0.385	76	61	103	33.3
110		4	16	RV0AFP91L	45	0	0.480	76	61	130	39.3

PF 2 01 951 011

Plain threaded union R PVC-U



d (mm)	R (inch)	PN (bar)	Code	SP	GP Weight (kg)	L1 (mm)	H (mm)	L (mm)	E (mm)	Z (mm)	F (inch)	
25	¾	16	RV0BMP25C	10	100	0.078	16.3	44	19	52	3	1 ¼
32	1	16	RV0BMP32D	40	0	0.102	19.1	48	22	59	3	1 ½
40	1 ¼	16	RV0BMP40E	40	0	0.163	21.4	54	26	72	3	2
50	1 ½	16	RV0BMP50F	60	0	0.220	22.0	58	31	79	3	2 ¼
50	2	16	RV0BMP50G	60	0	0.260	26.0	58	31	79	3	2 ¼
63	2	16	RV0BMP63G	36	0	0.375	26.0	66	38	96	3	2 ¾

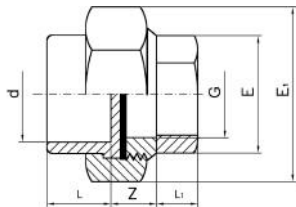


PF 2 01 950 013

Union PVC-U/brass threaded G

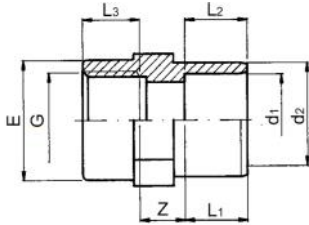


d (mm)	G (inch)	PN (bar)	Code	SP	Weight (kg)	E (mm)	L (mm)	L1 (mm)	Z (mm)	E1 (mm)
16	¾	16	RV0BMF16A	170	0.085	20	14	11	10	30
20	½	16	RV0BMF20B	70	0.145	25	16	15	11	38
25	¾	16	RV0BMF25C	50	0.215	32	19	15	14	47
32	1	16	RV0BMF32D	40	0.280	38	22	16	12	55
40	1 ¼	16	RV0BMF40E	25	0.380	48	26	19	13	65
50	1 ½	16	RV0BMF50F	25	0.500	54	31	21	13	72
63	2	16	RV0BMF63G	15	1.200	66	38	25	14	88



PF 2 01 951 011

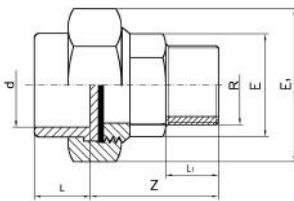
Adaptor socket Rp PVC-U 3 diameters



d1-d2 (mm)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L1 (mm)	L3 (mm)	Z (mm)	L2 (mm)	E (mm)
20 - 25	½	16	RV0MFP25B	10	200	0.015	16	15.0	12	19	28
25 - 32	¾	16	RV0MFP32C	10	150	0.027	19	16.3	13	22	34
32 - 40	1	16	RV0MFP40D	130	0	0.050	22	19.1	14	26	42
40 - 50	1 ¼	16	RV0MFP50E	110	0	0.070	26	21.4	16	31	51
50 - 63	1 ½	16	RV0MFP63F	80	0	0.120	31	21.4	18	38	58
63 - 75	2	16	RV0MFP75G	70	0	0.180	38	25.7	18	44	72
75 - 90	2 ½	16	RV0MFP90H	90	0	0.284	44	30.2	21	51	89
90 - 110	3	16	RV0MFP91I	50	0	0.490	51	33.3	25	61	103

PF 2 01 950 013

Union PVC-U/brass threaded R



d (mm)	R (inch)	PN (bar)	Code	SP	Weight (kg)	E1 (mm)	Z (mm)	L1 (mm)	L (mm)	E (mm)
16	¾	16	RV0BMM16A	115	0.110	30	35	11	14	20
20	½	16	RV0BMM20B	95	0.165	38	41	12	16	25
25	¾	16	RV0BMM25C	50	0.245	47	45	15	19	32
32	1	16	RV0BMM32D	40	0.325	55	47	19	22	38
40	1 ¼	16	RV0BMM40E	25	0.460	65	55	21	26	48
50	1 ½	16	RV0BMM50F	24	0.610	72	57	21	31	54
63	2	16	RV0BMM63G	15	0.975	88	68	25	38	66

PVC-U adaptor fittings range

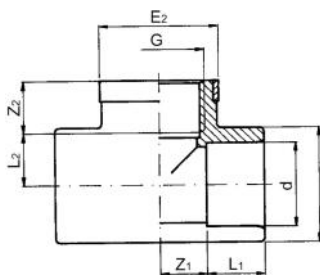
With metal ring reinforced

PF 2 01 951 012

Threaded central offtake tee G PVC-U



d (mm)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	Z1 (mm)	L1 (mm)	L2 (mm)	Z2 (mm)	E2 (mm)	E1 (mm)
16	3/8	16	RV0TTP16A	10	280	0.018	9	14	11.4	11.6	25	23
20	1/2	16	RV0TTP20B	10	150	0.030	11	16	15.0	12.0	30	28
25	3/4	16	RV0TTP25C	10	100	0.048	14	19	13.3	16.7	35	34
32	1	16	RV0TTP32D	10	100	0.076	17	22	19.1	19.9	45	42
40	1 1/4	16	RV0TTP40E	80	0	0.124	21	26	21.4	25.6	55	51
50	1 1/2	16	RV0TTP50F	50	0	0.200	26	31	21.4	35.6	65	61
63	2	16	RV0TTP63G	20	0	0.365	33	38	25.7	45.3	75	75

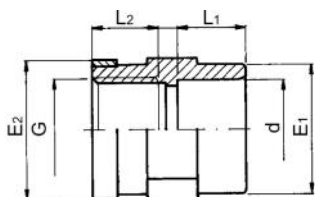


PF 2 01 951 012

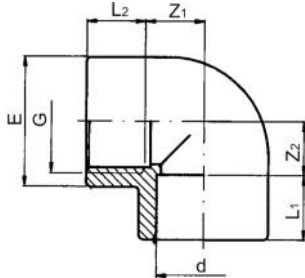
Plain/threaded socket G PVC-U



d (mm)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	E2 (mm)	E1 (mm)	L2 (mm)	L1 (mm)
16	3/8	16	RV0MMP16A	10	500	0.010	25	23	11.4	14
20	1/2	16	RV0MMP20B	10	250	0.020	30	28	15.0	16
25	3/4	16	RV0MMP25C	10	200	0.026	35	34	16.3	19
32	1	16	RV0MMP32D	10	120	0.044	45	42	19.1	22
40	1 1/4	16	RV0MMP40E	100	0	0.070	55	51	21.4	26
50	1 1/2	16	RV0MMP50F	60	0	0.092	65	61	21.4	31
63	2	16	RV0MMP63G	80	0	0.140	75	75	25.7	38

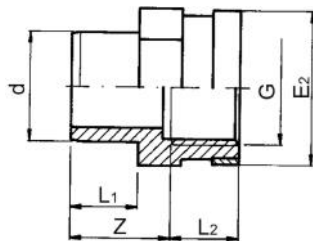


Plain/threaded elbow 90° G PVC-U



d (mm)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	E2 (mm)	E1 (mm)	Z2 (mm)	L1 (mm)	Z1 (mm)	L2 (mm)
16	3/8	16	RV0GGP16A	10	360	0.014	25	23	11.6	14	9	11.4
20	1/2	16	RV0GGP20B	10	200	0.021	30	28	12.0	16	11	15.0
25	3/4	16	RV0GGP25C	10	160	0.038	35	34	16.7	19	14	16.3
32	1	16	RV0GGP32D	10	80	0.062	45	42	19.9	22	17	19.1
40	1 1/4	16	RV0GGP40E	130	0	0.095	55	51	25.6	26	21	21.4
50	1 1/2	16	RV0GGP50F	70	0	0.160	65	61	35.6	31	26	21.4
63	2	16	RV0GGP63G	40	0	0.290	75	75	45.3	38	33	25.7

Threaded adaptor G PVC-U



d (mm)	G (inch)	Code	SP	GP	Weight (kg)	PN (bar)	L2 (mm)	E2 (mm)	Z (mm)	L1 (mm)
16	3/8	RV0AAP16A	10	600	0.020	16	11.4	25	22	14
20	1/2	RV0AAP20B	10	300	0.020	16	15.0	30	22	14
20	3/4	RV0AAP20C	10	240	0.025	16	15.0	30	24	16
25	1/2	RV0AAP25B	10	220	0.022	16	16.3	35	24	16
25	3/4	RV0AAP25C	10	200	0.028	16	15.0	30	27	19
25	1	RV0AAP25D	10	140	0.041	16	16.3	35	27	19
32	3/4	RV0AAP32C	10	180	0.034	16	19.1	45	27	19
32	1	RV0AAP32D	10	120	0.047	16	16.3	35	30	22
40	1	RV0AAP40D	100	0	0.053	16	19.1	45	30	22
40	1 1/4	RV0AAP40E	90	0	0.068	16	19.1	45	36	26
50	1 1/4	RV0AAP50E	70	0	0.074	16	21.4	55	36	26
50	1 1/2	RV0AAP50F	60	0	0.107	16	21.4	55	41	31
50	2	RV0AAP50G	90	0	0.135	16	21.4	60	41	31
63	2	RV0AAP63G	80	0	0.150	16	25.7	75	41	31
75	2	RV0AAP75G	160	0	0.140	16	25.7	75	48	38

Accessories

PF 2 01 950 013



Polypropylene pipe clip

- (*) Traded items

	d (mm)	Code	SP	GP	Weight (kg)
*	16	APOSPT160	20	500	0.006
*	20	APOSPT200	20	1100	0.008
*	25	APOSPT250	20	1000	0.009
*	32	APOSPT320	20	800	0.013
*	40	APOSPT400	10	250	0.026
*	50	APOSPT500	10	400	0.033
*	63	APOSPT630	10	160	0.047
*	75	APOSPT750	10	150	0.085
*	90	APOSPT900	10	120	0.100
*	110	APOSPT910	10	100	0.110
*	125	APOSPT920	10	50	0.114
*	140	APOSPT930	10	30	0.124
*	160	APOSPT940	10	20	0.137

PF 2 02 962 013



O-ring

Suitable for unions

- (*) Traded items

	d (mm)	EPDM Code	SP
*	16	1ORD03062	10
*	20	1ORD04081	10
*	25	1ORD04112	10
*	32	1ORD04131	10
*	40	1ORD06162	10
*	50	1ORD06187	10
*	63	1ORD06237	10
*	75	1ORD06312	10
*	90	1ORD06362	10
*	110	1ORD06450	10

PVC-U Safeblock water ball valves

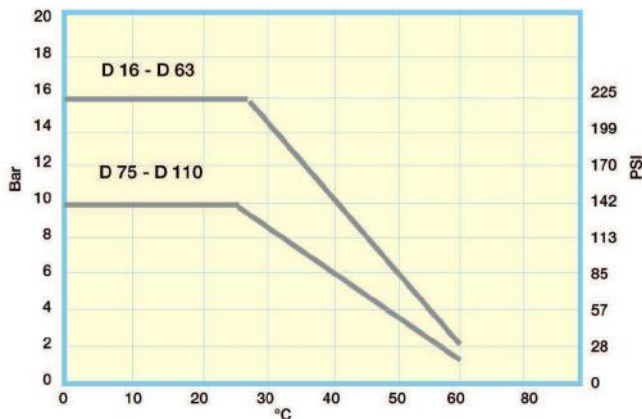
General characteristics

Single and Double Union Ball Valve - compact type - characterized by optimal handling, full flow, axial pipe load block with micro-adjustment of ball seat. Moreover in closed position the pipeline can be disconnected downstream from the valve.

Features outlined make TP valves particularly suited for the following applications: distribution, treatment and sewage water, swimming pools, water parks and aquaculture.

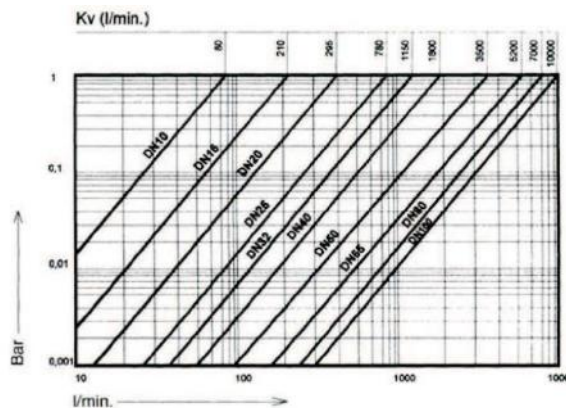
MAX WORKING PRESSURE

The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific queries.



Pressure temperature rating for water an harmless liquid.

CHARGE LOSS



With water at 20°C and the valve in open position

TORQUE

D	G	Nm
16-20	3/8"-1/2"	0,7
25	3/4"	2
32	1"	3,5
40	1" 1/4	7
50	1" 1/2	9
63	2"	13
75	2" 1/2	24
90	3"	30
110	4"	48

Max torque at max working pressure.

Installation and use

When glueing the end connector of the pipe, care must be taken to prevent the glue or solvent from coming in contact with the valve seats or ball.

Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. A special attention should be paid to the correct line-up of the installation. Tighten the union nut hand tight only. The use of wrench is not allowed. It is important that the unions are not used to pull the system together.

If there is any leakage from the union nuts, please check

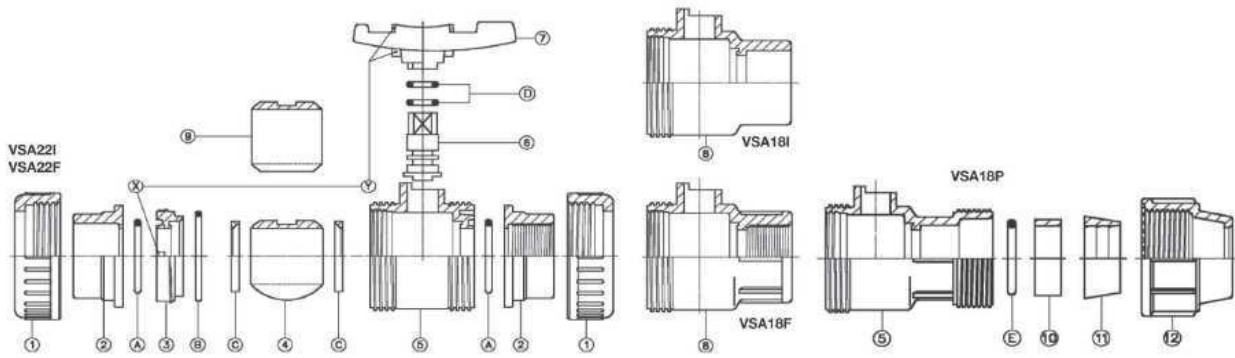
the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them.

Before the valve is cycled, all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats.

It is important to avoid rapid closures/opening of the valve to eliminate the possibility of water hammer causing damage to the pipeline.

It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and the adjoining procedure.

PVC-U Safeblock water ball valves



VALVE COMPONENTS

Pos	Components	n°			
		Material	VSA22	VSA18	
1	Union nut	2	1	1	PVC
2	End connector	2	1	1	PVC
3	Adjustable support	1	1	1	PVC
4	Ball DN≥40 a ≤100	1	-	1	PVC
5	Body	1	-	1	PVC
6	Stem	1	1	1	PVC
7	Handle	1	1	1	PVC
8	Singleunionbody	-	1	-	PVC
9	Ball DN≥10 a ≤32	1	-	-	PVC
10	Ball	-	1	-	PVC
11	Packing presserbush	-	-	1	PVC
12	Clip ring	-	-	1	POM
12	Quickjointnut	-	-	1	PVC
A	O-ring body	2	1	1	EPDM
B	O-ring support	1	1	1	EPDM
C	Ball seal	2	2	1	PTFE+PE
D	O-ring stem	2	2	2	EPDM
E	Quick joint O-ring	-	-	1	EPDM

PVC: Polyvinyl chloride
 EPDM: Ethylene-propylene
 PTFE+PE: Polytetra+fluoroethylene+polyethylene
 POM: Polyacetale

DISASSEMBLING AND REASSEMBLING IN CASE OF MAINTENANCE DOUBLE UNION VSA.22. ...

Screwing the union nut (1) it is possible to take out radially from the system the whole body of the valve.

To reach the internal parts of the valve act as follows:

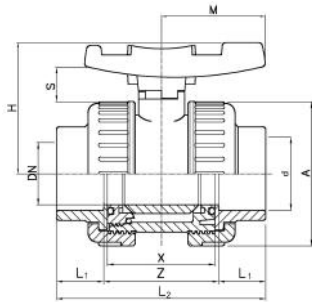
- 1- Set the valve on open position.
- 2- Withdraw the handle (7) from control stem (6).
- 3- Screw the support (3) of the body (5) using the two teeth (Y) of the handle (7) screwing operations should be done counter-clockwise.
- 4- After having screwed the support (3) and taken out the O-ring B which was inside (5), it is possible to reach all the internal parts of the valve to check the O-rings and in case substitute them.
 - to disassemble the ball (4)-(9) turn it using the control stem (6) setting it in closing position to withdraw the ballonet coupling through the control stem (6);
 - to disassemble the control stem (6) of the body (5) push it downwards as far as its complete outcome.

To assemble the valve act in the opposite way being careful to set the O-ring properly and greased it with silicon grease. Screw threaded support 3 straight to the end taking care not to block the ball (4)-(9).

PVC-U safeblock water ball valves

PF 2 02 956 010

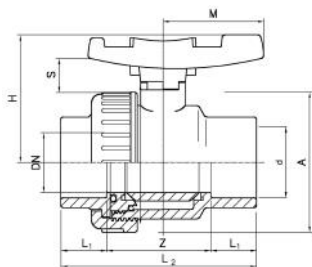
Double union safeblock ISO PVC-U Ball valve with solvent cement sockets



d (mm)	d (inch)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	L1 (mm)	H (mm)	L2 (mm)	A (mm)	S (mm)	Z (mm)	X (mm)	M (mm)
16		10	16	VSA221160	50	0.130	14	53	76	50	19	48	42	40
20		15	16	VSA221200	50	0.130	16	53	80	50	19	48	41	40
25		20	16	VSA221250	45	0.205	19	60	91	59	19	53	48	45
32		25	16	VSA221320	50	0.295	22	67	102	68	21	58	54	51
40		32	16	VSA221400	36	0.435	26	79	120	80	25	68	62	59
50		40	16	VSA221500	24	0.680	31	90	140	94	27	78	72	70
63		50	16	VSA221630	13	1.160	38	107	169	115	29	93	86	84
75	2 ½	65	10	VSA221750	8	2.200	44	129	206	145	32	118	110	103
90		80	10	VSA221900	4	3.310	51	143	242	168	36	140	128	120
110		100	10	VSA221910	2	5.925	61	169	282	210	43	160	150	141

PF 2 02 956 010

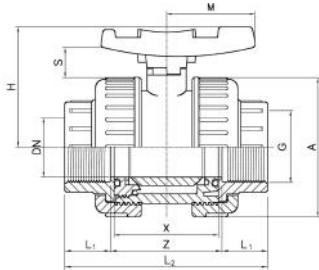
Single union safeblock ISO PVC-U Ball valve with solvent cement sockets



d (mm)	d (inch)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	L1 (mm)	M (mm)	A (mm)	S (mm)	H (mm)	L2 (mm)	Z (mm)
16		10	16	VSA181160	180	0.100	14	40	50	19	53	76	48
20		15	16	VSA181200	180	0.100	16	40	50	19	53	80	48
25		20	16	VSA181250	120	0.160	19	45	59	19	60	91	53
32		25	16	VSA181320	75	0.230	22	51	68	21	67	102	58
40		32	16	VSA181400	45	0.340	26	59	80	25	79	120	68
50		40	16	VSA181500	30	0.525	31	70	94	28	90	140	78
63		50	16	VSA181630	16	0.890	38	84	115	29	107	169	93
75	2 ½	65	10	VSA181750	8	1.640	44	103	145	32	129	206	118
90		80	10	VSA181900	5	2.450	51	120	168	36	143	242	140
110		100	10	VSA181910	2	4.100	61	141	210	43	169	282	160

PF 2 02 956 010

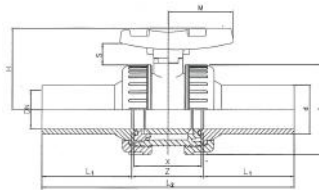
Double union safeblock B.S.P. PVC-U
Ball valve with threaded sockets G



G	DN	PN	EPDM	SP	Weight	Z	X	M	S	A	L2	H	L1
(inch)	(mm)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	10	16	VSA22F160	150	0.130	48	42	40	19	50	76	53	14
1/2	15	16	VSA22F200	150	0.130	48	42	40	19	50	80	53	16
3/4	20	16	VSA22F250	100	0.205	53	48	45	19	59	91	60	19
1	25	16	VSA22F320	60	0.295	58	54	51	21	68	102	67	22
1 1/4	32	16	VSA22F400	36	0.430	68	62	59	25	80	120	79	26
1 1/2	40	16	VSA22F500	24	0.655	78	72	70	27	94	140	90	31
2	50	16	VSA22F630	16	1.160	93	86	84	29	115	169	107	38
2 1/2	65	10	VSA22F750	8	2.045	118	110	103	32	145	206	129	44
3	80	10	VSA22F900	4	3.250	140	128	120	36	168	242	143	51
4	100	10	VSA22F910	2	5.820	160	150	141	43	210	282	169	61

PF 2 02 956 010

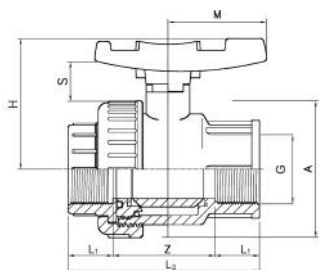
Double union safeblock PVC-U
Ball valve with spigots PE100 SDR11



d	PN	EPDM	SP	Weight	L2	L	L3	L1	H	D	e
(mm)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
20	16	VSA22B200	30	0.210	42	175	40	67	53	95	1.8
25	16	VSA22B250	20	0.210	48	195	45	77	60	105	2.3
32	16	VSA22B320	10	0.310	54	147	51	87	67	115	2.9
40	16	VSA22B400	10	0.450	62	233	59	102	79	140	3.6
50	16	VSA22B500	6	0.800	72	265	70	119	90	150	4.5
63	16	VSA22B630	3	1.255	86	278	84	146	107	165	5.7
75	16	VSA22B750	1	2.400	110	348	103	179	129	185	6.8
90	10	VSA22B900	1	3.625	128	350	120	209	143	200	8.2
110	10	VSA22B910	1	6.100	150	412	141	250	169	220	10.0

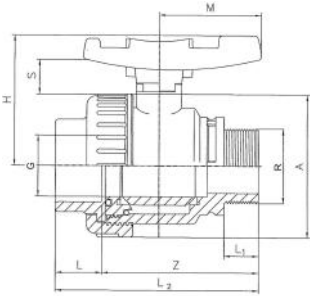
PF 2 02 956 010

Single union safeblock B.S.P. PVC-U
Ball valve with threaded sockets G



G	DN	PN	EPDM	SP	Weight	H	L2	L1	A	S	M	Z
(inch)	(mm)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	10	16	VSA18F160	180	0.100	53	76	14	50	19	40	48
1/2	15	16	VSA18F200	180	0.100	53	80	16	50	19	40	48
3/4	20	16	VSA18F250	120	0.160	60	91	19	59	19	45	53
1	25	16	VSA18F320	75	0.230	67	102	22	68	21	51	58
1 1/4	32	16	VSA18F400	45	0.335	79	120	26	80	25	59	68
1 1/2	40	16	VSA18F500	30	0.515	90	140	31	94	27	70	78
2	50	16	VSA18F630	18	0.890	107	169	38	115	29	84	93
2 1/2	65	10	VSA18F750	8	1.620	129	206	44	145	32	103	118
3	80	10	VSA18F900	5	2.420	143	242	51	168	36	120	140
4	100	10	VSA18F910	2	4.015	169	282	61	210	43	141	160

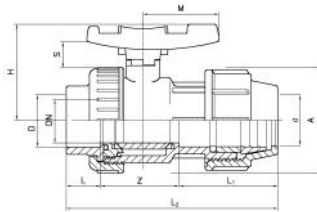
PF 2 02 956 010



Single union safeblock B.S.P. PVC-U
Ball valve with female threaded socket G/male thread R

G	R	PN	EPDM	SP	Weight	A	S	Z	M	L1	L2	L	H
(inch)	(inch)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
3/8	3/8	16	VSA18S160	180	0.095	50	19	53	40	12.0	67	14	53
1/2	1/2	16	VSA18S200	180	0.095	50	19	55	40	15.0	71	16	53
3/4	3/4	16	VSA18S250	120	0.150	59	19	61	45	16.5	80	19	60
1	1	16	VSA18S320	75	0.210	68	21	68	51	19.5	90	22	67
1 1/4	1 1/4	16	VSA18S400	45	0.320	80	25	84	59	21.5	110	26	79
1 1/2	1 1/2	16	VSA18S500	30	0.500	94	27	97	70	21.5	128	31	90
2	2	16	VSA18S630	18	0.845	115	29	119	84	25.5	157	38	107

PF 2 02 956 010



Single union safeblock PVC-U
Ball valve with compression fitting

d-d	DN	PN	EPDM	SP	Weight	M	Z	L1	L	H	A	L2	S
(mm)	(mm)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
50 - 50	40	16	VSA18P500	18	0.515	70	63	88	31	90	94	182	27

Spare parts for manual valves

PF 2 02 962 010



Blue handle

Suitable for VSA22 - VSA18

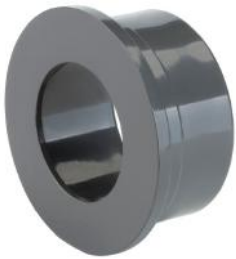
d	DN	Code
(mm)	(mm)	
16 - 20	15	3VMNG1D20
25	20	3VMNG1D25
32	25	3VMNG1D32
40	32	3VMNG1D40
50	40	3VMNG1D50
63	50	3VMNG1D63
75	65	3VMNG1D75
90	75	3VMNG1D90
100	100	3VMNG1D91



Grey handle

Suitable for VSA11 - VSA21

d (mm)	DN (mm)	Code
16 - 20	10 - 15	3VMNG0A20
25	20	3VMNG0A25
32	25	3VMNG0A32
40	32	3VMNG0A40
50	40	3VMNG0A50
63	50	3VMNG0A63
75	65	3VMNG0A75
90	80	3VMNG0A90
110	100	3VMNG0A91



Plain socket PVC-U metric

Suitable for VSA

d (mm)	d (inch)	PN (bar)	Code
16		16	3VCLV1I16
20		16	3VCLV1I20
25		16	3VCLV1I25
32		16	3VCLV1I32
40		16	3VCLV1I40
50		16	3VCLV1I50
63		16	3VCLV1I63
75	2 ½	10	3VCLV1I75
90		10	3VCLV1I90
110		10	3VCLV1I91

PF 2 02 962 010



Gasket set

Suitable for VSA

d (mm)	EPDM/ PTFE/PE Code	SP	Weight (kg)
16	XSASED160	10	0.010
20	XSASED200	10	0.010
25	XSASED250	10	0.010
32	XSASED320	10	0.010
40	XSASED400	10	0.015
50	XSASED500	10	0.025
63	XSASED630	10	0.035
75	XSASED750	10	0.045
90	XSASED900	10	0.070
110	XSASED910	10	0.080



Nut PVC-U

Suitable for VSA - VSI - VR0 - VRI

d (mm)	DN (mm)	Code
16 - 20	10 - 15	3VGHR0A20
25	20	3VGHR0A25
32	25	3VGHR0A32
40	32	3VGHR0A40
50	40	3VGHR0A50

table continued on the next page

d (mm)	DN (mm)	Code
63	50	3VGHR0A63
75	65	3VGHR0A75
90	80	3VGHR0A90
110	100	3VGHR0A91



Threaded socket B.S.P. G PVC-U

Suitable for VSA

G (inch)	PN (bar)	Code
3/8	16	3VCLV1F16
1/2	16	3VCLV1F20
3/4	16	3VCLV1F25
1	16	3VCLV1F32
1 1/4	16	3VCLV1F40
1 1/2	16	3VCLV1F50
2	16	3VCLV1F63
2 1/2	10	3VCLV1F75
3	10	3VCLV1F90
4	10	3VCLV1F91



Socket PE100

• (*) Traded items
Suitable for VSA - VRO - VRV - VRI

	d (mm)	DN (mm)	PN (bar)	Code
*	20	15	10	3ECLV200
*	25	20	10	3ECLV250
*	32	25	10	3ECLV320
*	40	32	10	3ECLV400
*	50	40	10	3ECLV500
*	63	50	10	3ECLV630
*	75	65	10	3ECLV750
*	90	80	10	3ECLV900
*	110	100	10	3ECLV910

PF 2 02 962 011



Ball valve bracket With 2 bolts + 2 nuts

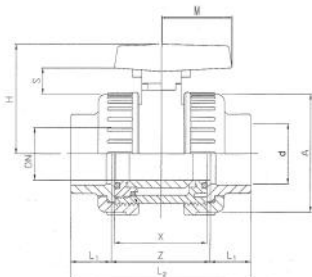
Suitable for VSA

d (mm)	Code	SP	Weight (kg)
20	AVSSTF200	1	0.132
25	AVSSTF250	1	0.142
32	AVSSTF320	1	0.152
40	AVSSTF400	1	0.197
50	AVSSTF500	42	0.256
63	AVSSTF630	28	0.356

PVC-U non safeblock water ball valves

PF 2 02 956 010

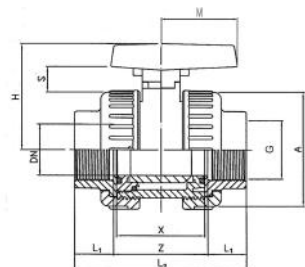
Double union ball valve ISO PVC-U With solvent cement sockets



d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	A (mm)	S (mm)	H (mm)	L2 (mm)	L1 (mm)	Z (mm)	X (mm)	M (mm)
20	15	16	VSA21I200	150	0.130	50	12	51	80	16	48	42	36
25	20	16	VSA21I250	100	0.205	59	15	58	91	19	53	48	39
32	25	16	VSA21I320	60	0.300	68	16	65	102	22	58	54	45
40	32	16	VSA21I400	38	0.430	80	18	76	120	26	68	62	51
50	40	16	VSA21I500	24	0.655	94	21	88	140	31	78	72	57
63	50	16	VSA21I630	13	1.120	115	23	103	169	38	93	86	66

PF 2 02 956 010

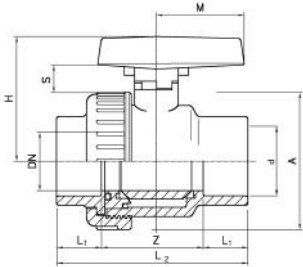
Double union ball valve B.S.P PVC-U With threaded sockets G



G (inch)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	H (mm)	L1 (mm)	A (mm)	L2 (mm)	S (mm)	M (mm)	X (mm)	Z (mm)
1/2	15	16	VSA21F200	150	0.130	51	16	50	80	12	36	42	48
3/4	20	16	VSA21F250	100	0.205	58	19	59	91	15	39	48	53
1	25	16	VSA21F320	60	0.300	65	22	68	102	16	45	54	58
1 1/4	32	16	VSA21F400	38	0.430	76	26	80	120	18	51	62	68
1 1/2	40	16	VSA21F500	24	0.655	88	31	94	140	21	57	72	78
2	50	16	VSA21F630	16	1.120	103	38	115	169	23	66	86	93

PF 2 02 956 010

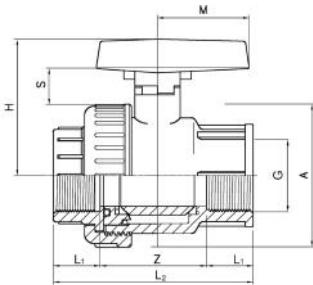
Single union ball valve ISO PVC-U
With solvent cement sockets



d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	S (mm)	A (mm)	L2 (mm)	H (mm)	M (mm)	Z (mm)	X (mm)	L1 (mm)
20	15	16	VSA11I200	180	0.103	12	50	80	51	36	48	42	16
25	20	16	VSA11I250	120	0.160	15	59	91	58	39	53	48	19
32	25	16	VSA11I320	75	0.230	16	68	102	65	45	58	54	22
40	32	16	VSA11I400	48	0.340	18	80	120	76	51	68	62	26
50	40	16	VSA11I500	30	0.525	21	94	140	88	57	78	72	31
63	50	16	VSA11I630	16	0.890	23	115	169	103	66	93	86	38
75	65	10	VSA11I750	8	1.645	24	145	206	124	78	118	110	44
90	80	10	VSA11I900	5	2.450	26	168	242	137	84	140	128	51
110	100	10	VSA11I910	2	4.100	28	210	282	162	96	160	150	61

PF 2 02 956 010

Single union ball valve B.S.P. PVC-U
With threaded sockets G



G (inch)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	Z (mm)	X (mm)	M (mm)	A (mm)	S (mm)	H (mm)	L2 (mm)	L1 (mm)
½	15	16	VSA11F200	180	0.105	48	42	36	50	12	51	80	16
¾	20	16	VSA11F250	120	0.160	53	48	39	59	15	58	91	19
1	25	16	VSA11F320	75	0.230	58	54	45	68	16	65	102	22
1 ¼	32	16	VSA11F400	48	0.335	68	62	51	80	18	76	120	26
1 ½	40	16	VSA11F500	30	0.515	78	72	57	94	21	88	140	31
2	50	16	VSA11F630	18	0.893	93	86	66	115	23	103	169	38

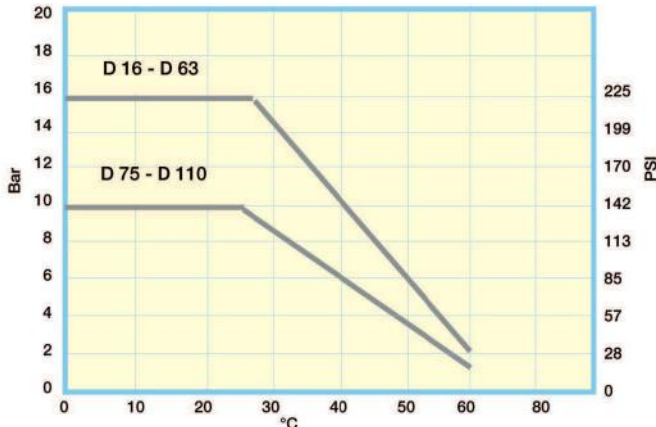
PVC-U Irrigation black ball valves

General characteristics

Black PVC ball valve - economy type - recommended for outdoor installation and irrigation system mainly. It is available with F/F - M/F, quick joint connection.

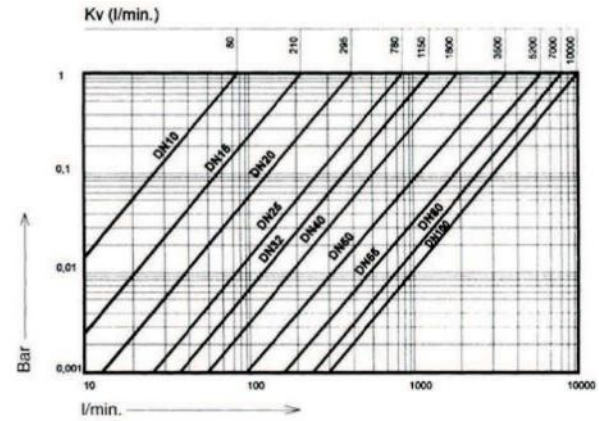
MAX WORKING PRESSURE

The a. m. technical information should be used as a guide. Please consult our Technical dept for specific queries.



Pressure temperature rating for water and harmless liquid.

CHARGE LOSS



With water at 20°C and the valve in open position

TORQUE

D	G	Nm
16-20	3/8"-1/2"	0,8
25	3/4"	2,5
32	1"	4
40	1" 1/4	8
50	1" 1/2	10
63	2"	14
75	2" 1/2	25
90	3"	32
110	4"	50

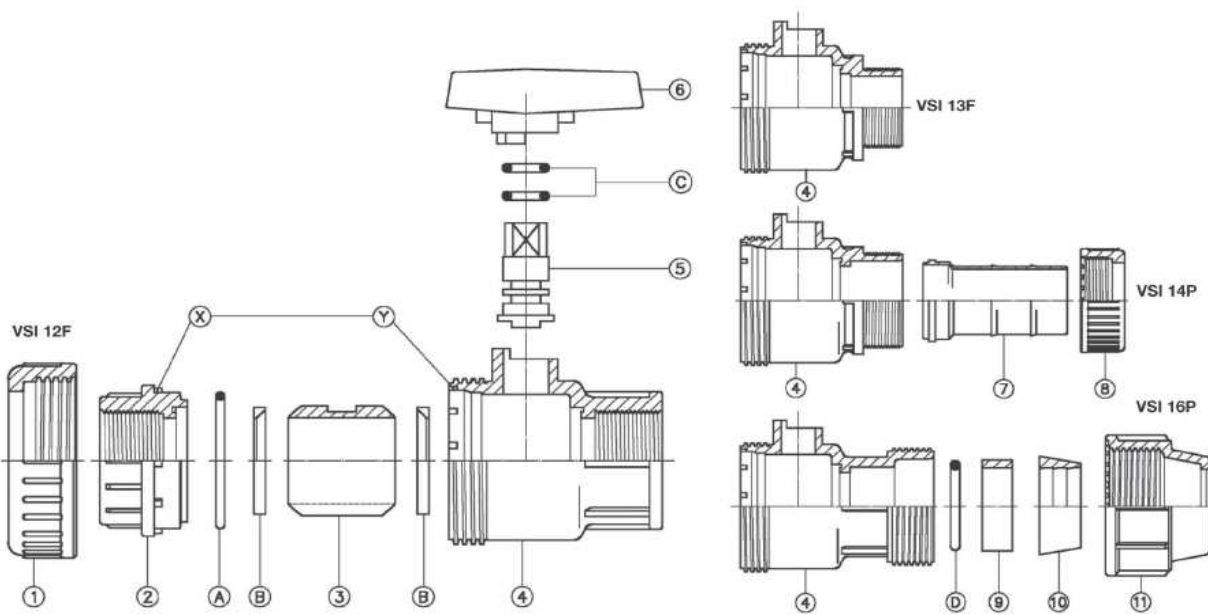
Max torque at max working pressure.

Installation and use

For a perfect sealing it is recommended to wind up completely the threaded male end with a good quality PTFE tape. All connection with cone-shaped male threads should be carefully avoided as they can finally break the female socket during jointing or running procedures. Avoid use of keys to screw the nuts because they can produce breakings. Sand or other impurities must be absent before starting the installation because they can damage the ball or the seat.

The use of wrench is not allowed. It is important to avoid rapid closure/opening of the valve to eliminate the possibility of water hammer causing damage to the pipeline. It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedures. TP technical dept. will be glad to support you with installation instruction leaflets.

PVC-U Irrigation black ball valves



VALVE COMPONENTS

Pos	Components	n°	Material
1	Union nut	1	PVC
2	Support	1	PVC
3	Ball	1	PVC
4	Body	1	PVC
5	Stem	1	PVC
6	Handle	1	PVC
7	Hose adaptor	1	PP
8	Hose adaptor nut	1	PVC
9	Packing presser bush	1	PVC
10	Clip-ring	1	POM
11	Quick joint nut	1	PVC
A	O-ring support	1	EPDM
B	Ball seal	2	PTFE+PE
C	O-ring stem	2	EPDM
D	Quick joint O-ring	1	EPDM

PVC: Polyvinyl chloride

EPDM: Ethylene-propylene

PTFE+PE: Polytetra+fluoroethylene+polyethylene

POM: Polyacetale

PP: Polypropylene homopolymere thermoresistant

DISASSEMBLING AND REASSEMBLING IN CASE OF MAINTENANCE

Single union VSI cannot be radially disassembled from the installation.

TP does not recommend to take out the support (2) from its seat when making up the connection. In any case if the valve is disassembled, be sure that the socket O-ring (A) does not come out of its groove and insert the teeth (X) of the support (2) in their correct seat (Y).

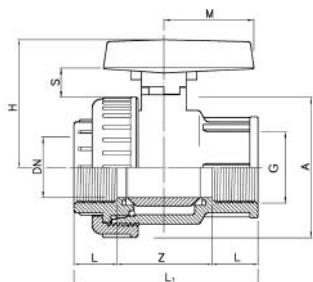
After taking out the support (2) it is possible to reach the internal parts of the valve in order to check the state of the O-ring and substitute them if necessary.

To reassemble the valve please act the other way taking care of replacing the O-ring correctly into their seats duly cleaned.

PVC-U irrigation black ball valves

PF 2 02 958 010

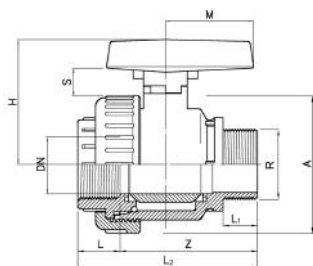
Single union ball valve B.S.P PVC-U With threaded sockets G



G	PN	EPDM	SP	Weight	A	L	S	M	Z	L1	H
(inch)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	16	VSI12F200	200	0.095	50	16	12	36	36	68	51
¾	16	VSI12F250	120	0.150	59	19	15	39	42	80	58
1	16	VSI12F320	75	0.220	68	22	16	45	46	90	65
1 ¼	16	VSI12F400	50	0.320	80	24	18	51	53	101	76
1 ½	16	VSI12F500	30	0.490	94	24	21	57	63	111	88
2	16	VSI12F630	18	0.830	115	28	23	66	78	134	103
2 ½	10	VSI12F750	10	1.525	145	33	24	78	96	162	124
3	10	VSI12F900	6	2.260	168	36	26	84	108	180	137
4	10	VSI12F910	2	4.370	210	42	28	96	139	223	162

PF 2 02 958 010

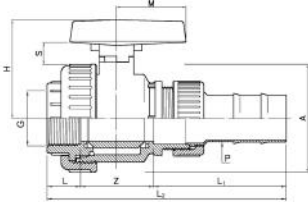
Single union ball valve B.S.P PVC-U With threaded socket G/male thread R



R	PN	EPDM	SP	Weight	L1	Z	M	S	A	L2	L	H
(inch)	(bar)	Code		(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
½	16	VSI13F200	200	0.095	15	55	36	12	50	71	16	51
¾	16	VSI13F250	120	0.150	17	61	39	15	59	80	19	58
1	16	VSI13F320	75	0.210	20	68	45	16	68	90	22	65
1 ¼	16	VSI13F400	50	0.320	22	84	51	18	80	108	24	76
1 ½	16	VSI13F500	30	0.495	22	97	57	21	94	121	24	88
2	16	VSI13F630	18	0.845	26	119	66	23	115	147	28	103

PF 2 02 958 010

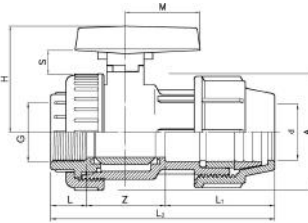
Valve with nut and hose adaptor PVC-U



d (mm)	G (inch)	PN (bar)	EPDM Code	SP	Weight (kg)	M (mm)	Z (mm)	H (mm)	L1 (mm)	L2 (mm)	L (mm)	S (mm)	A (mm)
32	1	16	VSI14P32D	50	0.260	66	68	103	75	165	22	23	115

PF 2 02 958 010

Valve with compression fitting PVC-U



d (mm)	G (inch)	PN (bar)	EPDM Code	SP	Weight (kg)	L1 (mm)	H (mm)	M (mm)	S (mm)	A (mm)	L2 (mm)	L (mm)	Z (mm)
20	3/8	16	VSI16P200	130	0.135	50	52	36	12	50	102	16	36
25	3/4	16	VSI16P250	90	0.200	57	58	39	15	59	118	19	42
32	1	16	VSI16P320	50	0.300	64	65	45	16	68	132	22	46
40	1 1/4	16	VSI16P400	10	0.460	76	76	51	18	80	153	24	53
50	1 1/2	16	VSI16P500	20	0.730	88	88	57	21	94	175	24	63
63	2	16	VSI16P630	12	1.200	100	103	66	23	115	206	28	78

PVC-U One flow direction valves

General characteristics

Compact double union valve: all one direction valves are realized with the same dimensions of our ball valves VSA and can be disassembled from the network simply by unscrewing the two unions nuts.

VRO allows the passage of the liquid in one direction only. VRO type orientated as a foot valve allows the passage of the liquid acting as a foot valve. As an air release valve

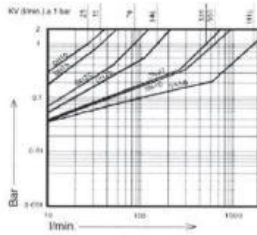
acts releasing the air until the liquid reaches the floating wedge closing the valve and maintaining therefore the liquid under pressure.

Materials chemical resistances according to ISO/TR 10358.

Please consult the supplier about applications and details.

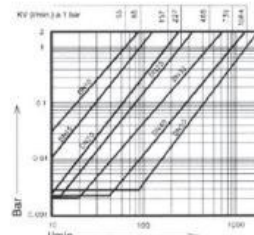
VRO CHARGE LOSS

The a. m. technical information should be used as a guide. Please consult our Technical dpt for specific questions.

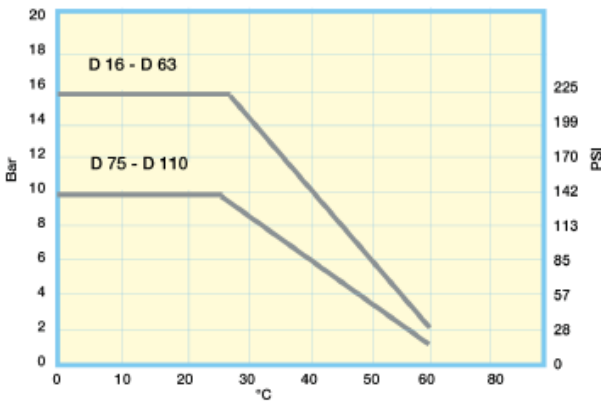


With water at 20°C (valve with spring)

VRV-VRF CHARGE LOSS



With water at 20°C (valve without spring)



Pressure temperature rating for water an harmless liquid.

PRESSURE

D	G	VRO mm H ₂ O	VRV/VRF mm H ₂ O	Weight g
16	3/8"	150	23	4
20	1/2"	150	23	4
25	3/4"	70	25	8
32	1"	32	22	11
40	1 1/4"	40	21	17
50	1 1/2"	38	24	30
63	2"	44	29	56

Min. opening pressure of spring and own weight (water column).

Installation and use

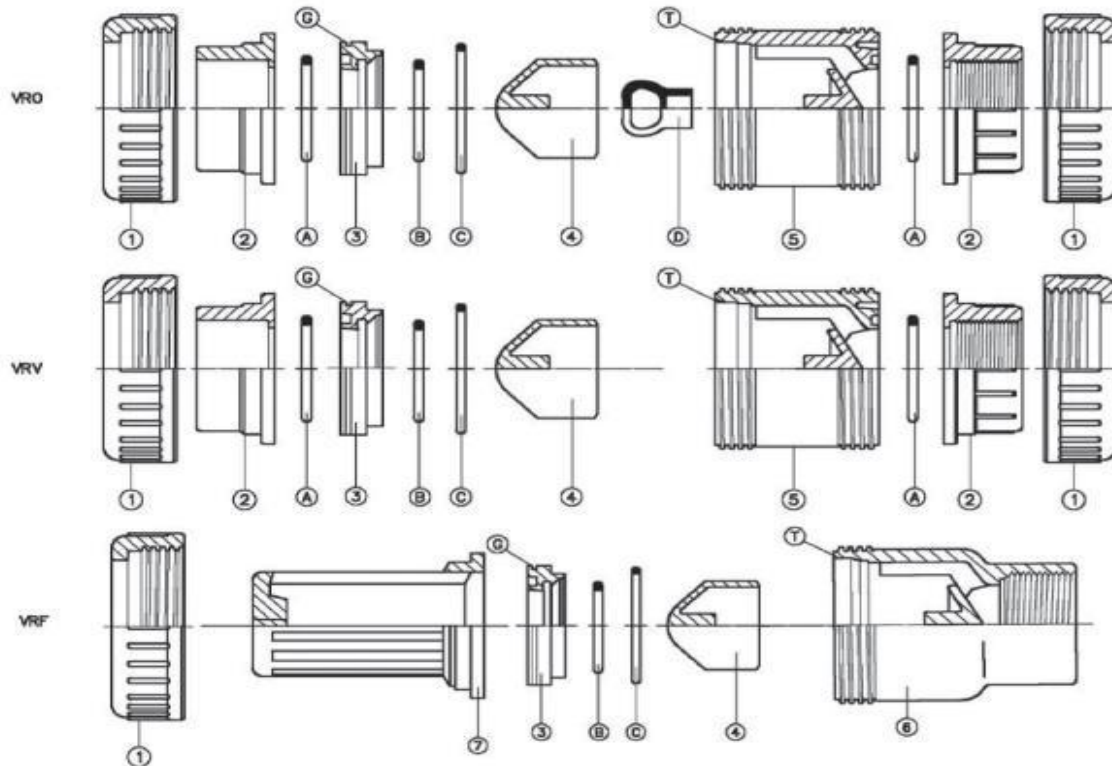
Be careful during the glueing of the end connector of the pipes; the glue or solvent must absolutely not run into the wedge or O' ring of the valve. Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. A special attention should be paid to the correct line-up of the installation and to the pipe length. Tighten the union nut hand tight only.

The use of wrench is not allowed. It is important that the

unions are not used to pull the system together. If there is any leakage from the union nuts, please check the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them.

Before the valve is cycled, all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats. It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedure.

PVC-U One flow direction valves



PRESSURE

Pos	Components	n°			Material
		VRO	VRV	VRF	
1	Union nut	2	2	1	PVC
2	End connector	2	2	-	PVC
3	Support	1	1	1	PVC
4	Wedge	1	1	1	PVC
5	Body	1	1	-	PVC
6	Threaded body	-	-	1	PVC
7	Screen	-	-	1	PP
A	O-ring body	2	2	1	EPDM
B	O-ring wedge	1	2	1	EPDM
C	O-ring support	1	1	1	EPDM
D	Spring wedge	1	-	-	EPDM

PVC: Polyvinyl chloride

EPDM: Ethylene-propylene (DUTRAL®)

Disassembling and reassembling in case of maintenance

Unscrewing the union nut (1) it is possible to take out radially from the system the whole central group of the valve.

To reach the internal parts of the valve act as follows:

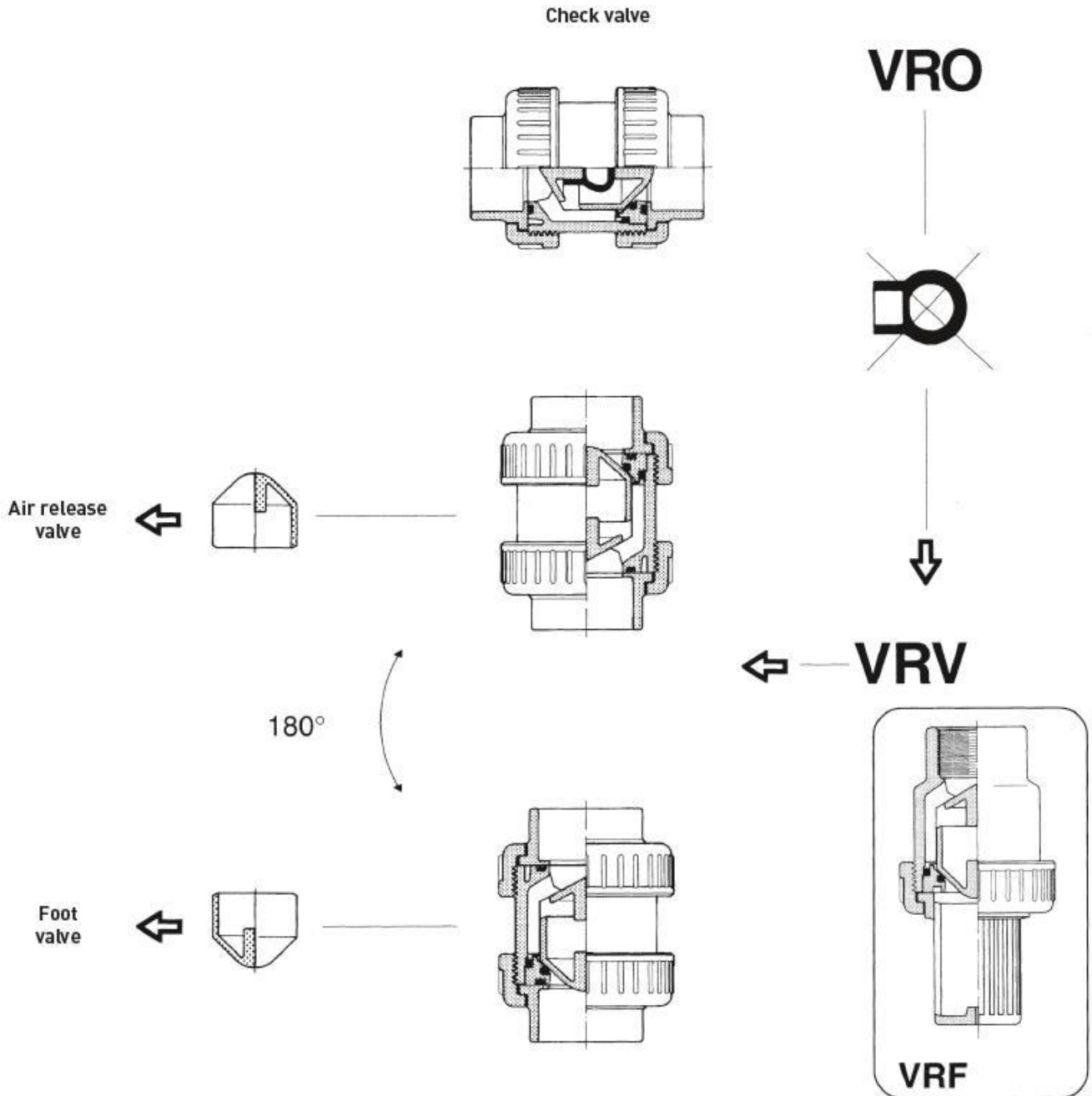
- 1 Take out the support (3) from the body (5) levering with a screwdriver between the two gates T of the body and the groove G of the support.

- 2 After disassembling the support (3) and taking out the O-ring C that has stayed inside the body (5), it is possible to reach all the parts of the valve and check the O-rings and in case substitute them.

To assemble the valve act in the opposite way being careful to set the O-ring properly and greased it with silicon grease.

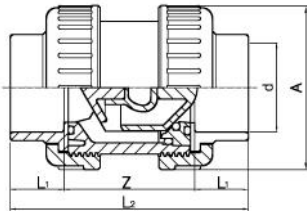
PVC-U One flow direction valves

The VRO type has an internal rubber spring. Taking out the internal spring and orientating the valve in the right way, it is become either a foot valve or an air release. The valve VR range has the same dimensions as the ball valves VSA, allowing this way a unique way of fixing to the wall thanks to the same type of clamping (cf. STF).



PVC-U one flow direction

PF 2 02 961 010



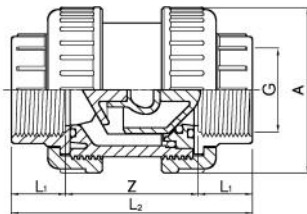
Check valve ISO PVC-U With solvent cement sockets

Model:

- Rubber spring
- Standards:ISO 727, EN 1452, DIN 8063, NF T54-028, BS 4346/1
- (*)Body and dimensions = 3"

d (mm)	d (inch)	DN (mm)	PN (bar)	EPDM Code	SP Weight (kg)	L1 (mm)	L2 (mm)	A (mm)	X (mm)	Z (mm)	
16		10	16	VR021I160	32	0.100	14	76	50	42	48
20		15	16	VR021I200	32	0.100	16	80	50	42	48
25		20	16	VR021I250	32	0.175	19	91	59	48	53
32		25	16	VR021I320	20	0.245	22	102	68	54	58
40		32	16	VR021I400	15	0.375	26	120	80	62	68
50		40	16	VR021I500	6	0.580	31	140	94	72	78
63		50	16	VR021I630	4	1.000	38	169	115	86	93
*	2 ½	65	10	VR021I750	2	2.950	44	206	168	110	118
90		80	10	VR021I900	2	3.000	51	242	168	128	140

PF 2 02 961 010



Check valve B.S.P. PVC-U With threaded sockets G

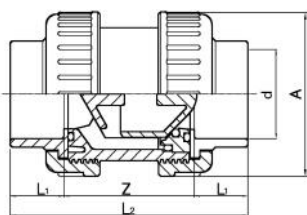
- Standards:UNI ISO 228/1, DIN 2999, BS21
- (*)Body and dimensions = 3"

Model:

- Rubber spring

G (inch)	DN (mm)	PN (bar)	EPDM Code	SP Weight (kg)	L2 (mm)	A (mm)	L1 (mm)	X (mm)	Z (mm)	
¾	10	16	VR021F160	32	0.110	76	50	14	42	48
½	15	16	VR021F200	32	0.110	80	50	16	42	48
¾	20	16	VR021F250	32	0.175	91	59	19	48	53
1	25	16	VR021F320	20	0.245	102	68	22	54	58
1 ¼	32	16	VR021F400	15	0.370	116	80	24	62	68
1 ½	40	16	VR021F500	6	0.565	126	94	24	72	78
2	50	16	VR021F630	4	0.995	149	115	28	86	93
*	2 ½	65	VR021F750	2	2.845	184	168	33	128	118
3	80	10	VR021F900	2	2.960	212	168	36	128	140

PF 2 02 961 010

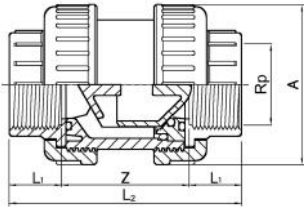


Air release/foot valve ISO PVC-U With solvent cement sockets

- (*)Body and dimensions = 3"
- Standards:ISO 727, EN 1452, DIN 8063, NF T54-028, BS 4346/1

d (mm)	d (inch)	DN (mm)	PN (bar)	EPDM Code	SP Weight (kg)	Z (mm)	A (mm)	L1 (mm)	L2 (mm)	
16		10	16	VRV21I160	32	0.110	48	50	14	76
20		15	16	VRV21I200	32	0.110	48	50	16	80
25		20	16	VRV21I250	32	0.175	53	59	19	91
32		25	16	VRV21I320	20	0.245	58	68	22	102
40		32	16	VRV21I400	15	0.375	68	80	26	120
50		40	16	VRV21I500	6	0.575	78	94	31	140
63		50	16	VRV21I630	4	0.990	93	115	38	169
*	2 ½	65	10	VRV21I750	2	2.845	118	168	44	206
90		80	10	VRV21I900	2	2.900	140	168	51	242

PF 2 02 961 010

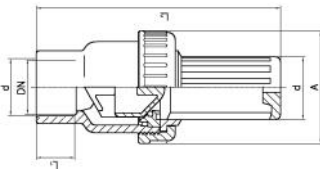
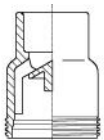


**Air release/foot valve B.S.P. PVC-U
With threaded sockets Rp**

- Standards: UNI ISO 228/1, DIN 2999, BS21
- (*)Body and dimensions = 3"

	Rp (inch)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	Z (mm)	L1 (mm)	A (mm)	L2 (mm)
	3/8	10	16	VRV21F160	32	0.110	48	14	50	76
	1/2	15	16	VRV21F200	32	0.110	48	16	50	80
	3/4	20	16	VRV21F250	32	0.175	53	19	59	91
	1	25	16	VRV21F320	20	0.240	58	22	68	102
	1 1/4	32	16	VRV21F400	15	0.370	68	24	80	116
	1 1/2	40	16	VRV21F500	6	0.555	78	24	94	126
	2	50	16	VRV21F630	4	0.985	93	28	115	149
*	2 1/2	65	10	VRV21F750	2	2.870	118	33	168	184
	3	80	10	VRV21F900	2	2.870	140	36	168	212

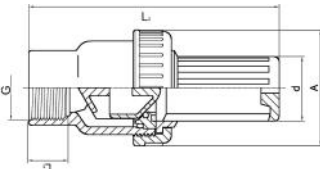
PF 2 02 961 010



**Foot valve PVC-U with PP screen
With solvent cement socket**

DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	L2 (mm)	A (mm)	L1 (mm)
15	16	VRF11I200	200	0.074	110	50	16
20	16	VRF11I250	120	0.120	130	59	19
25	16	VRF11I320	60	0.175	145	68	22
32	16	VRF11I400	40	0.259	162	80	26
40	16	VRF11I500	21	0.399	187	94	31
50	16	VRF11I630	15	0.690	215	115	38
80	10	VRF11I900	5	2.045	275	168	51

PF 2 02 961 010



Foot valve B.S.P. PVC-U threaded with PP screen

G (inch)	PN (bar)	EPDM Code	SP	Weight (kg)	L1 (mm)	L2 (mm)	d (mm)	A (mm)
1/2	16	VRF11F200	200	0.074	16	110	23	50
3/4	16	VRF11F250	120	0.120	19	130	30	59
1	16	VRF11F320	60	0.175	22	145	38	68
1 1/4	16	VRF11F400	40	0.259	24	160	48	80
1 1/2	16	VRF11F500	21	0.399	24	180	57	94
2	16	VRF11F630	15	0.690	28	205	71	115
3	10	VRF11F900	5	2.045	36	260	110	168

Spare parts



Rubber spring

Suitable for VRO

d (mm)	EPDM Code
20	2MLL01D20
25	2MLL01D25
32	2MLL01D32
40	2MLL01D40
50	2MLL01D50
63	2MLL01D63
75 - 90	2MLL01D90

PF 2 02 962 010



Foot valve PP screen

Suitable for VRF

d (mm)	G (inch)	PN (bar)	Code	SP	Weight (kg)
20	½	16	ARVSCPF20	150	0.010
25	¾	16	ARVSCPF25	90	0.012
32	1	16	ARVSCPF32	50	0.019
40	1 ¼	16	ARVSCPF40	30	0.030
50	1 ½	16	ARVSCPF50	20	0.045
63	2	16	ARVSCPF63	12	0.072
90	3	16	ARVSCPF90	4	0.165

PVC-U wafer check valves

PF 2 02 956 013



Wafer check valve standard PVC-U Without spring

- Other diameters on request
- (*) Traded items

	d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)
*	75	65	10	VVCLP750	30	0.406
*	90	80	10	VVCLP900	24	0.468
*	110	100	10	VVCLP910	15	0.660
*	125	125	10	VVCLP920	15	0.850
*	160	150	10	VVCLP940	5	1.250
*	200	200	10	VVCLP960	4	2.230

PVC-U Butterfly Valves

General description

VFA Butterfly Valves are designed to guarantee reliability, safety, top level performance and simple operation. The rational, compact shape and the construction concept simplify assembly and routine maintenance operations. VFA valves are ideally suited for water and neutral fluids.

Technical features

Available versions

- Lever-operated
- Pre-assembled with flanges
- With pneumatic actuators
- With electric actuators

Dimensions

- All versions from DN65 to DN200

Body material

- PVC-U

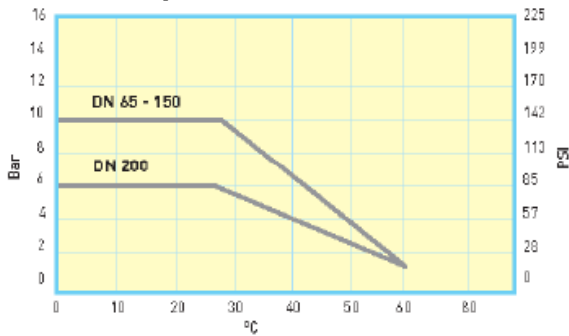
Gasket material

- EPDM disk gasket – O rings
- SANTOPRENE™ flange gaskets

Stem material

- Zinc plated steel

Operating Pressure versus temperature



Functional Features

VALVE SIZE DN Inch	OPERATING TORQUE New Valve at operating PN	TIGHTENING TORQUE (with PVC-U/Metal Flanges)
65 – 2 1/2"	11 Nm *	15 Nm
80 – 3"	14 Nm *	20 Nm
100 – 4"	16 Nm *	23 Nm
125 – 5"	26 Nm *	30 Nm
150 – 6"	35 Nm *	30 Nm
200 – 8"	50 Nm *	50 Nm

* Reference value: These values can change, depending on the specific application and also over time

Applications

VFA Butterfly Valves have been designed to be used mainly in contact with water and neutral fluids in different applications such as public and private swimming pools, water parks, thermal pools, Spa's, irrigation and aquaculture.

Pressure

- From DN65 to DN150: PN 10
- DN200: PN 6

Temperature

- 0 °C + 60 °C

Flange Connecting Standards

- ISO – DIN – BS – ANSI

Conformity

- Ministerial Decree 174

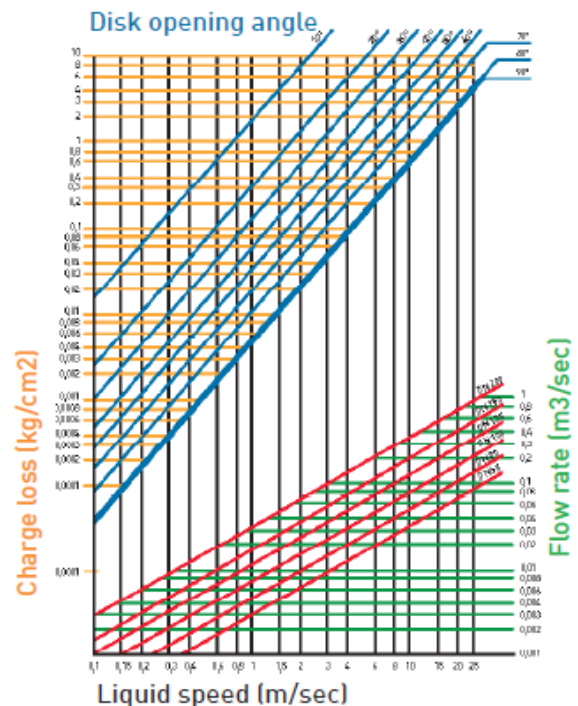
Actuators

- 24 V electric actuators
- Single/double-acting pneumatic actuators

Valve standards

- Conform to ISO 16136 - Pr EN 1452 - ISO 9393

Charge Loss



PVC-U Butterfly Valves - Assembly instructions



1. Insert the bolts, washers and nuts without tightening in the lower part between the flanges. Take the valve out of its package, carefully checking its integrity and that it is perfectly clean.

2. Insert the valve in the "CLOSED" position between the flanges until the slots in the lower part of the body rest directly on the bolts, taking care to maintain parallelism with the flanges.



3. Insert the remaining bolts, washers and nuts in the upper part between the flanges. Tighten the nuts/bolts in across pattern until the tightening torque indicated is reached. (TAB. A) We recommend that you use a torque wrench.



4-5. Check that:

- the flanges adhere perfectly to the valve body
- correct parallelism is maintained between the valve and the flanges
- an axial position is maintained relative to the pipe.

6. Use the safety stop if necessary

Operate the valve with no load, checking that movements are smooth and there are no abnormal stresses.

BUTTERFLY VALVE DISASSEMBLY INSTRUCTIONS

Before proceeding, make sure that:

- All valves upstream and downstream of the one to be worked on are closed.
- The system has been depressurized.
- The pipe has been completely emptied.

Carry out the assembly operations described in reverse order.

We recommend to clean the internal components of the valve as well as to open and close the valve itself regularly. By complete disassembling of the valve, please pay attention to put the gaskets in the correct positioning

TAB. A

VALVE DN	TIGHTENING TOR@UE‡
65 - 2" 1/2	15 Nm
80 - 3"	20 Nm
100 - 4"	23 Nm
125 - 5"	30 Nm
150 - 6"	30 Nm
200 - 8"	50 Nm

*WITH PVCU/METAL FLANES

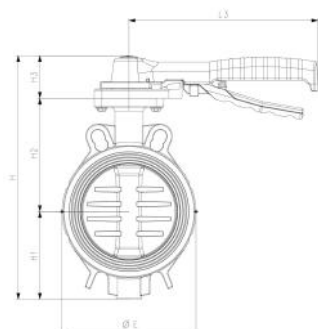
PVC-U butterfly valves

PF 2 02 960 010

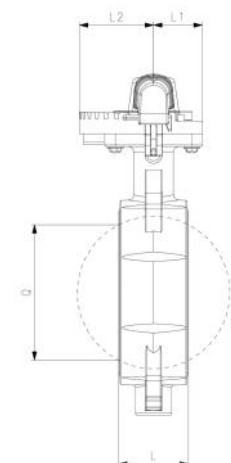


Lever-operated butterfly valve PVC-U With EPDM/SANTOPRENE™gaskets

d (mm)	DN (mm)	DN (inch)	PN (bar)	Code	SP	Weight (kg)
75	65	2 ½	10	VFA02D750	1	1.300
90	80	3	10	VFA02D900	1	1.290
110	100	4	10	VFA02D910	1	1.500
125 - 140	125	5	10	VFA02D920	1	2.300
160	150	6	10	VFA02D940	1	3.350
200 - 225	200	8	6	VFA02D960	1	5.400



d (mm)	H3 (mm)	L3 (mm)	Q (mm)	H2 (mm)	L (mm)	L2 (mm)	L1 (mm)	H (mm)	E (mm)	H1 (mm)	H4 (mm)
75	55	220	46	115	46	70	46	246	112	76	43
90	55	220	64	120	48	70	46	267	128	92	43
110	55	220	84	130	54	70	46	291	152	106	43
125 - 140	55	250	108	150	63	70	46	321	177	116	43
160	55	250	133	169	63	70	46	356	212	131	43
200 - 225	61	282	180	209	74	70	46	433	260	163	43



PF 2 02 960 010



Lever-operated butterfly valve PVC-U With free flanges kit With EPDM/SANTOPRENE™gaskets

d (mm)	DN (mm)	PN (bar)	DN (inch)	Code	SP	Weight (kg)
75	65	10	2 ½	VFA02D75K	1	4.650
90	80	10	3	VFA02D90K	1	4.879
110	100	10	4	VFA02D91K	1	5.858
125	125	10	5	VFA02D92K	1	7.100
140	125	10	5	VFA02D93K	1	10.850
160	150	10	6	VFA02D94K	1	11.930
200	200	6	8	VFA02D96K	1	13.950
225	200	6	8	VFA02D97K	1	13.950

Butterfly valves kits

PF 2 02 960 010



Kit including backing flanges PVC-U
Stub and screws

d (mm)	DN (inch)	DN (mm)	PN (bar)	Code	SP	Weight (kg)
75	2 ½	65	10	XVFFLIZ75	1	3.350
90	3	80	10	XVFFLIZ90	1	3.585
110	4	100	10	XVFFLIZ91	1	1.899
125	5	125	10	XVFFLIZ92	1	4.800
140	5	125	10	XVFFLIZ93	1	4.800
160	6	150	10	XVFFLIZ94	1	7.500
200	8	200	6	XVFFLIZ96	1	8.550
225	8	200	6	XVFFLIZ97	1	8.550

Spare parts for butterfly valves



Coloured handle

Suitable for VFA02D

DN-DN (mm)	DN-DN (inch)	d-d (mm)	Code	SP
65 - 100	2 ½ - 4	75 - 110	3V0VFM04	1
125 - 150	5 - 6	125 - 160	3V0VFM05	1
200 - 200	8 - 8	200 - 225	3V0VFM06	1



Disk seal

- suitable for VFA02D
- (*) Traded items

d (mm)	DN (mm)	DN (inch)	EPDM Code
*	75	65	2 ½ 2G0VF10D75
*	90	80	3 2G0VF10D90
*	110	100	4 2G0VF10D91
*	125 - 140	125	5 2G0VF10D92
*	160	150	6 2G0VF10D94
*	200 - 225	200	8 2G0VF10D96



External gasket kit in EPDM/SANTOPRENE™

- suitable for VFA02D
- (*) Traded items

d (mm)	DN (inch)	DN (mm)	Code
*	75	2 ½	65 2G0VF1ED75
*	90	3	80 2G0VF1ED90
*	110	4	100 2G0VF1ED91
*	125 - 140	5	125 2G0VF1ED92
*	160	6	150 2G0VF1ED94
*	200 - 225	8	200 2G0VF1ED96

External O ring

- Suitable for external Gasket 2GOVF1ED
- (*) Traded items



	d (mm)	DN (mm)	DN (inch)	Code	GP
*	75 - 90	80	2 ½	1ORD03037T	8
*	110	100	4	1ORD03043T	10
*	125 - 140	125	5	1ORD00117T	10
*	160	150	6	1ORD03068T	10
*	200	200	8	1ORD03093T	10



Actuator fixing bracket

Suitable for VFA

DN (mm)	Code	SP
65 - 150	3VOVFSG01	1
200	3VOVFSG02	1

PVC-U Actuated Butterfly Valves

The range of new VFA valves is also available in pneumatic and electric actuated versions from DN 65 to DN 200. The design and operating features of the VFA valves allow extremely reduced operating torques, supporting the choice of compact, cost effective actuators.

VFK50

Butterfly valve with 24V AC electric actuator EPDM/SANTOPRENE™ gaskets

Electric actuator features:

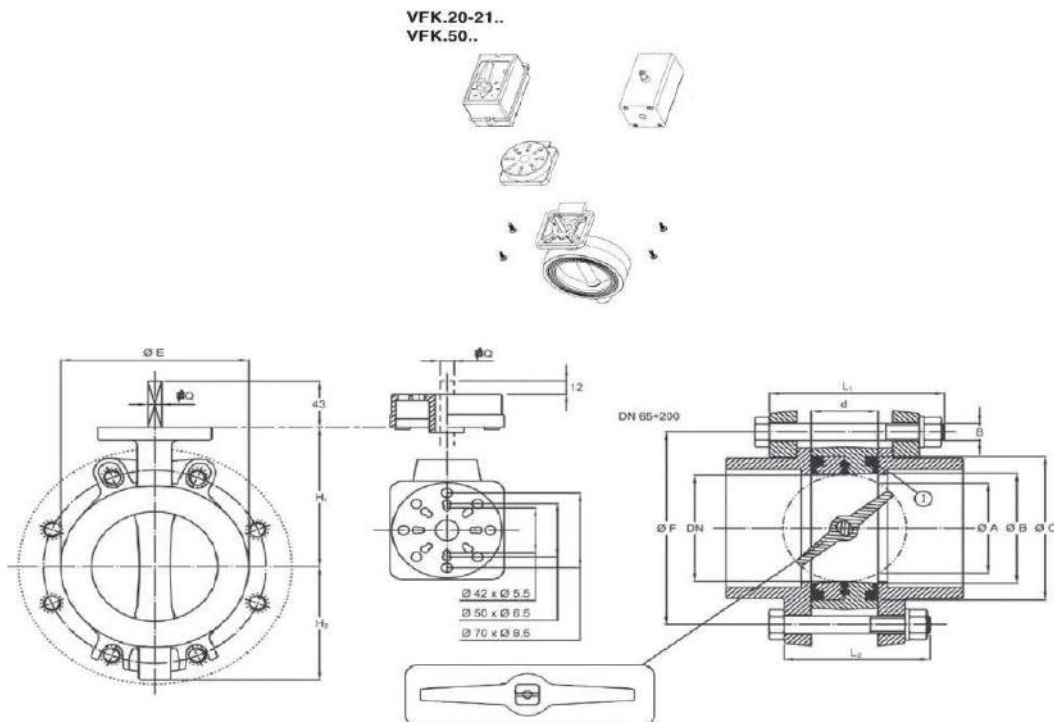
- Power supply: 24 at 50 Hz.
- Operating time: DN 65-80: 50 sec
DN 100-125: 1 min.
DN 150-200: 150 sec.
- Fail-safe open: standard
- Auxiliary contacts: 2 standard
- Protection: IP 65
- Connection standard: ISO 5211

VFK2....

Butterfly valve with pneumatic actuator EPDM/SANTOPRENE™ gaskets

Pneumatic actuator features:

- Versions: single/double-acting
- Power supply: filtered compressed air, not necessarily lubricated
- Operating pressure: 6 bar
- Operating temperature for actuator only: from 0°C to + 80°C (from – 20°C to + 80°C in dry air)
- Connection standard: ISO 5211
- Angle of rotation: 90°C
- Namur connector for accessories



	ISO UNI-DIN PN 10	ISO UNI-DIN PN 16	B54504 TAB. 16/3 TAB. 10/3	ANSI 150 lbs	JIS	DN	G	D	øA	øB	øC	d	L ₁	L ₂	B	øE	Q	H ₁	H ₂
øF	145	145	145	140	140	65	2" 1/2	75	49	73	98	46	130	120	16	112	11	115	76
	160	160	160	152	-	80	3"	90	64	83	112	48	130	120	16	128	11	120	86
	180	180	181	190	-	100	4"	110	85	103	134	54	150	120	16	152	11	130	106
	210	210	210	216	210	125	5"	125/140	108	129	158	63	160	160	16	177	14	150	116
	240	240	241	241	240	150	6"	160	134	154	190	69	180	180	20	212	14	170	132
295	295	295	298	-	200	8"	200/225	180	198	232	72	200	200	20	262	17	209	163	

PVC-U actuated butterfly valves

PF 2 02 959 010



Butterfly valve pneumatic PVC-U With EPDM/SANTOPRENE™ gaskets

d (mm)	DN (mm)	DN (inch)	PN (bar)	ACTING TYPE	Code	SP	Weight (kg)
75	65	2 ½	10	DOUBLE	VFK20D750	1	2.600
90	80	3	10	DOUBLE	VFK20D900	1	2.600
110	100	4	10	DOUBLE	VFK20D910	1	3.016
125 - 140	125	5	10	DOUBLE	VFK20D920	1	6.000
160	150	6	6	DOUBLE	VFK20D940	1	6.700
200 - 225	200	8	6	DOUBLE	VFK20D960	1	6.700
75	65	2 ½	10	SINGLE	VFK21D750	1	2.600
90	80	3	10	SINGLE	VFK21D900	1	5.600
110	100	4	10	SINGLE	VFK21D910	1	7.700
125 - 140	125	5	10	SINGLE	VFK21D920	0	8.500
160	150	6	6	SINGLE	VFK21D940	0	9.250
200 - 225	200	8	6	SINGLE	VFK21D960	0	9.250

PF 2 02 959 010



Butterfly valve electric 24V AC PVC-U With EPDM/SANTOPRENE™ gaskets

d (mm)	DN (inch)	DN (mm)	PN (bar)	Code	SP	GP	Weight (kg)
75	2 ½	65	10	VFK50D750	1	0	1.750
90	3	80	10	VFK50D900	1	0	1.750
110	4	100	10	VFK50D910	1	0	1.916
125 - 140	5	125	10	VFK50D920	0	1	4.300
160	6	150	6	VFK50D940	1	0	5.400
200 - 225	8	200	6	VFK50D960	1	0	7.400

PVC-U Fittings and valves British standard range

Mechanical resistances

The following data are referred to water or not particularly aggressive liquids, at a working temperature of 20° C.

Materials

The PVC-U compound used by TP is stabilized unplasticized polyvinyl chloride.

Material chemical resistances according to ISO/TR10358

Coupling tolerance for solvent welding BS series, in accordance with:

fittings complying with:

BS 4346/1

Pipes complying with:

BS3505 e BS 3506

The following table reports diameter and tolerances of our fittings, according to prescription.

Series	Dimensions	Class	PN
Solvent welding (d inch)	from 3/8" to 3"	E	15
BS plain-ISO plain (T)	from 3/8" to 6"	E	15
Adaptor (R)	from 3/8" to 2"	E D	15 12

Note: 1) Class D; 2) Class C

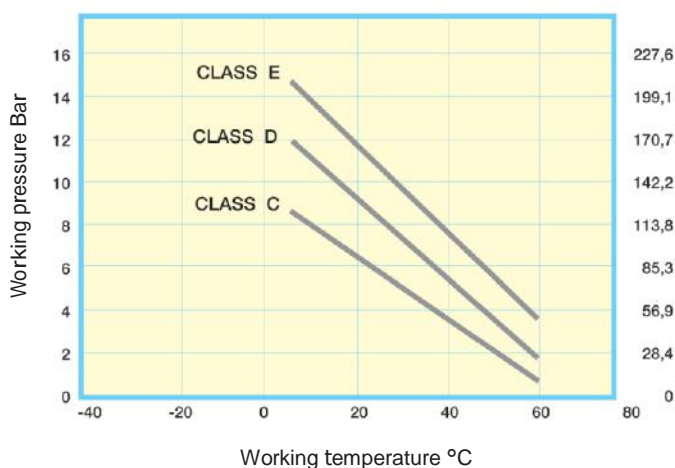
Safety factors at 20° C

Class	NP nominal pressure	1 hour	50years
E	15 Bar	3,6	2,1
D	12 Bar	4,5	2,6
C	9 Bar	6,0	3,5

Dimensions in mm

D	Outside diam. of male fittings		Inside diam. of female fittings	
	Min	Max	Min	Max
3/8"	17,00	17,20	17,10	17,30
1/2"	21,20	21,40	21,30	21,50
3/4"	26,60	26,80	26,70	26,90
1"	33,40	33,60	33,50	33,70
1 1/4"	42,10	42,30	42,20	42,40
1 1/2"	48,10	48,30	48,20	48,40
2"	60,20	60,40	60,30	60,50
2 1/2"	75,10	75,40	75,10	75,30
3"	88,70	89,00	88,80	89,10
4"	114,10	114,40	114,20	114,50
5"	140,00	140,40	140,10	140,40
6"	168,00	168,40	168,20	168,50
8"	218,80	219,30	219,00	219,40

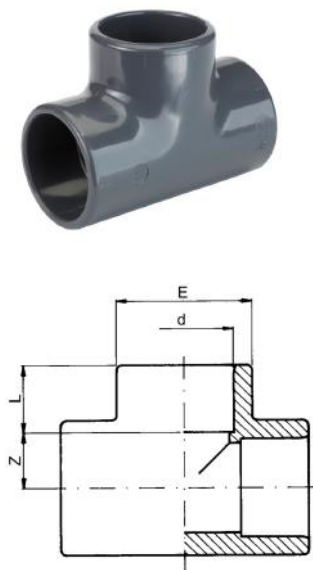
WORKING PRESSURE RANGE RELATING TO TEMPERATURE



PVC-U fittings solvent cement jointing

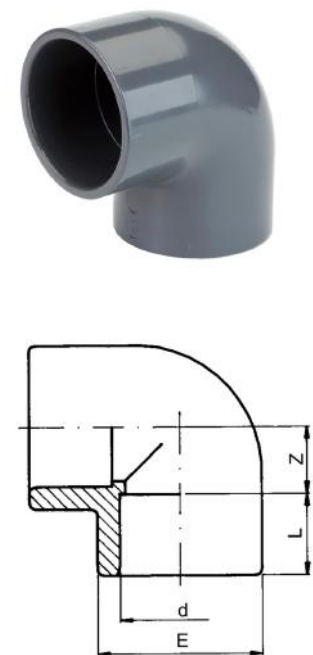
British standard Inch

Tee 90° PVC-U Inch BS



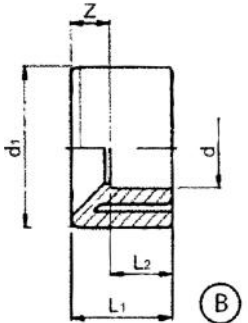
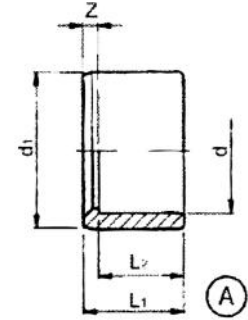
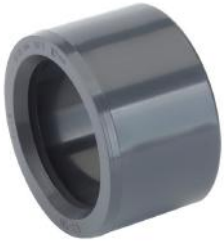
d (mm)	d (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L (mm)	E (mm)	Z (mm)
	3/8	16	RV0TIL160	2 01 952 010	10	280	0.012	14	23	9
	1/2	16	RV0TIL200	2 01 952 010	10	150	0.023	16	27	11
	3/4	16	RV0TIL250	2 01 952 010	10	100	0.030	19	33	14
	1	16	RV0TIL320	2 01 952 010	10	130	0.065	22	41	17
	1 1/4	16	RV0TIL400	2 01 952 010	90	0	0.127	27	52	21
	1 1/2	16	RV0TIL500	2 01 952 010	50	0	0.208	32	61	26
	2	16	RV0TIL630	2 01 952 010	25	0	0.315	37	75	33
75	2 1/2	16	RV0TII750	2 01 950 010	35	0	0.523	44	89	39
	3	16	RV0TIL900	2 01 952 010	24	0	0.820	52	107	45
	4	16	RV0TIL910	2 01 952 010	10	0	1.330	63	133	62
140	5	16	RV0TII930	2 01 950 010	6	0	2.650	76	163	72
	6	16	RV0TIL940	2 01 952 010	4	0	4.300	93	198	86
	8	16	RV0TIL970	2 01 952 010	15	0	11.300	116	258	116

Elbow 90° PVC-U Inch BS



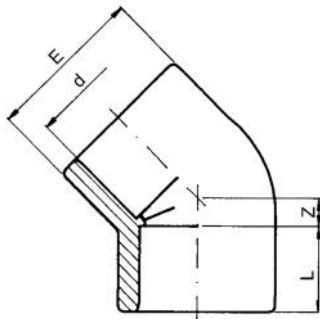
d (mm)	d (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L (mm)	E (mm)	Z (mm)
	3/8	16	RV0GOL160	2 01 952 010	10	360	0.013	15	23	9
	1/2	16	RV0GOL200	2 01 952 010	10	200	0.018	17	27	11
	3/4	16	RV0GOL250	2 01 952 010	10	160	0.029	20	33	14
	1	16	RV0GOL320	2 01 952 010	10	80	0.049	23	41	17
	1 1/4	16	RV0GOL400	2 01 952 010	130	0	0.075	27	51	22
	1 1/2	16	RV0GOL500	2 01 952 010	80	0	0.140	32	61	26
	2	16	RV0GOL630	2 01 952 010	40	0	0.222	37	75	34
75	2 1/2	16	RV0GOI750	2 01 950 010	50	0	0.386	44	89	39
	3	16	RV0GOL900	2 01 952 010	30	0	0.600	52	107	45
	4	16	RV0GOL910	2 01 952 010	15	0	1.060	63	133	58
140	5	16	RV0GOI930	2 01 950 010	8	0	2.050	76	163	72
	6	16	RV0GOL940	2 01 952 010	5	0	3.335	93	198	85
	8	16	RV0GOL970	2 01 952 010	18	0	6.600	113	258	116

Reducing bush PVC-U Inch BS

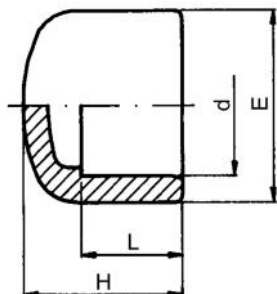


	d (inch)	d1 (inch)	PN (bar)	Code	SP	GP	Weight (kg)	L1 (mm)	L2 (mm)	Z (mm)
	½	¾	16	RV0RCL20A	10	800	0.003	17	15	2
A	¾	½	16	RV0RCL25B	10	600	0.006	20	17	3
B	1	½	16	RV0RCL32B	10	400	0.016	23	17	6
A	1	¾	16	RV0RCL32C	10	400	0.010	23	20	3
A	1 ¼	1	16	RV0RCL40D	250	0	0.016	27	23	5
B	1 ½	1	16	RV0RCL50D	180	0	0.035	30	23	8
A	1 ½	1 ¼	16	RV0RCL50E	180	0	0.020	30	27	3
B	2	1	16	RV0RCL63D	100	0	0.067	36	23	14
A	2	1 ½	16	RV0RCL63F	100	0	0.055	36	30	6
B	2 ½	1 ½	16	RV0RCL75F	130	0	0.122	44	30	14
A	2 ½	2	16	RV0RCL75G	130	0	0.080	44	36	8
B	3	1 ½	16	RV0RCL90F	80	0	0.200	51	30	21
B	3	2	16	RV0RCL90G	80	0	0.195	51	36	15
A	3	2 ½	16	RV0RCL90H	80	0	0.140	51	44	7
B	4	2	16	RV0RCL91G	45	0	0.370	36	36	27
B	4	2 ½	16	RV0RCL91H	42	0	0.370	63	44	19
A	4	3	16	RV0RCL91I	45	0	0.273	36	51	13
B	5	3	16	RV0RCL93I	48	0	0.550	76	51	26
B	6	4	16	RV0RCL94L	24	0	0.795	90	63	27
B	8	6	16	RV0RCL970	9	0	1.860	116	90	26

Elbow 45° PVC-U Inch BS



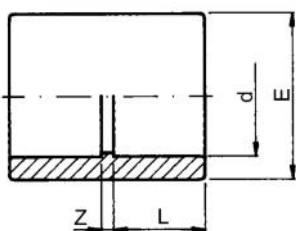
d (inch)	d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	Z (mm)	L (mm)	E (mm)
¾		16	RV0GYL160	2 01 952 010	10	400	0.009	3	15	23
½		16	RV0GYL200	2 01 952 010	10	260	0.017	5	16	27
¾		16	RV0GYL250	2 01 952 010	10	150	0.029	6	19	33
1		16	RV0GYL320	2 01 952 010	10	100	0.047	8	22	41
1 ¼		16	RV0GYL400	2 01 952 010	80	0	0.065	10	27	52
1 ½		16	RV0GYL500	2 01 952 010	100	0	0.113	12	32	61
2		16	RV0GYL630	2 01 952 010	50	0	0.190	15	39	75
2 ½	75	16	RV0GYI750	2 01 950 010	65	0	0.308	17	44	89
3		16	RV0GYL900	2 01 952 010	40	0	0.515	21	52	107
4		16	RV0GYL910	2 01 952 010	20	0	0.836	25	63	133
5	140	16	RV0GYI930	2 01 950 010	8	0	1.600	31	76	163
8		16	RV0GYL970	2 01 952 010	24	0	4.900	46	116	249



Cap PVC-U Inch BS

d (inch)	d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	E (mm)	L (mm)	H (mm)
3/8		16	RVOCAL160	2 01 952 010	10	600	0.007	23	15	22
1/2		16	RVOCAL200	2 01 952 010	10	500	0.011	28	17	26
3/4		16	RVOCAL250	2 01 952 010	10	400	0.018	34	20	30
1		16	RVOCAL320	2 01 952 010	10	200	0.027	42	23	33
1 1/4		16	RVOCAL400	2 01 952 010	160	0	0.044	51	27	41
1 1/2		16	RVOCAL500	2 01 952 010	80	0	0.075	61	30	46
2		16	RVOCAL630	2 01 952 010	50	0	0.133	75	36	55
2 1/2	75	16	RVOCAL750	2 01 950 010	25	0	0.187	89	44	64
3		16	RVOCAL900	2 01 952 010	50	0	0.325	106	51	73
4		16	RVOCAL910	2 01 952 010	25	0	0.520	129	63	87
5	140	16	RVOCAL930	2 01 950 010	30	0	0.915	162	76	108
6		16	RVOCAL940	2 01 952 010	18	0	1.120	192	90	123

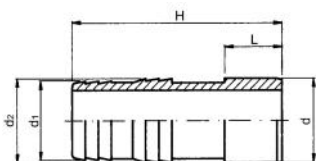
Double socket PVC-U Inch BS



d (inch)	d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	E (mm)	L (mm)	Z (mm)
3/8		16	RVOMAL160	2 01 952 010	10	500	0.009	23	14.5	3
1/2		16	RVOMAL200	2 01 952 010	10	300	0.015	27	16.0	3
3/4		16	RVOMAL250	2 01 952 010	10	200	0.021	33	19.0	3
1		16	RVOMAL320	2 01 952 010	10	130	0.034	41	22.0	3
1 1/4		16	RVOMAL400	2 01 952 010	100	0	0.057	52	27.0	3
1 1/2		16	RVOMAL500	2 01 952 010	60	0	0.099	61	32.0	3
2		16	RVOMAL630	2 01 952 010	70	0	0.175	75	37.0	3
2 1/2	75	16	RVOMAL750	2 01 950 010	48	0	0.226	89	44.0	4
3		16	RVOMAL900	2 01 952 010	60	0	0.385	107	52.0	5
4		16	RVOMAL910	2 01 952 010	32	0	0.605	133	7.0	6
5	140	16	RVOMAL930	2 01 950 010	14	0	1.100	162	76.0	8
6		16	RVOMAL940	2 01 952 010	9	0	1.540	198	90.0	8
8		16	RVOMAL970	2 01 952 010	2	0	3.550	253	120.0	10

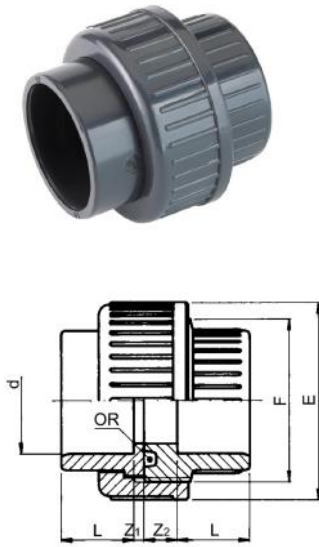
PF 2 01 952 010

Hose adaptor PVC-U Inch BS



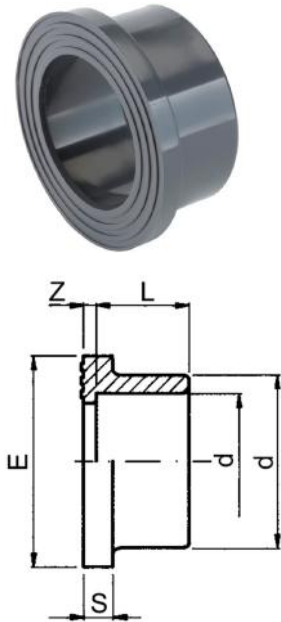
d (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	d1 (mm)	d2 (mm)	L (mm)
3/8	16	RVOPGL160	10	400	0.010	60	16	18	15
1/2	16	RVOPGL200	10	300	0.014	67	20	22	17
3/4	16	RVOPGL250	10	200	0.020	74	25	27	20
1	16	RVOPGL320	10	130	0.030	80	30	32	23
1 1/4	16	RVOPGL400	180	0	0.055	92	40	42	27
1 1/2	16	RVOPGL500	130	0	0.078	101	50	52	30
2	16	RVOPGL630	150	0	0.142	111	60	64	36

Union with o-ring PVC-U Inch BS



d (inch)	d (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	F (inch)	Z2 (mm)	L (mm)	Z1 (mm)	E (mm)
3/8		16	RV0BOL160	2 01 952 010	10	250	0.025	3/4	10	15	3	34
1/2		16	RV0BOL200	2 01 952 010	10	150	0.040	1	10	16	3	42
3/4		16	RV0BOL250	2 01 952 010	10	100	0.066	1 1/4	10	19	3	52
1		16	RV0BOL320	2 01 952 010	10	60	0.088	1 1/2	10	22	3	59
1 1/4		16	RV0BOL400	2 01 952 010	90	0	0.152	2	12	27	3	73
1 1/2		16	RV0BOL500	2 01 952 010	60	0	0.215	2 1/4	14	32	3	82
2		16	RV0BOL630	2 01 952 010	36	0	0.350	2 3/4	18	39	3	100
2 1/2	75	16	RV0BOL750	2 01 950 010	10	0	0.575	3 1/2	18	44	3	119
3		16	RV0BOL900	2 01 952 010	15	0	0.790	4	18	52	5	134
4		16	RV0BOL910	2 01 952 010	18	0	1.285	5	18	61	5	163

Flange adapter serrated PVC-U Inch BS



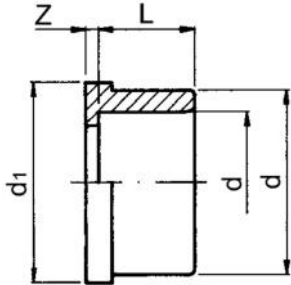
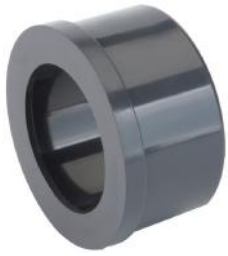
d (inch)	DN (mm)	PN (bar)	Code	PF	SP	GP	Weight (kg)	Z (mm)	L (mm)	S (mm)	E (mm)
1/2		16	RV0QRL200	2 01 952 010	10	400	0.010	3	17	6	34
3/4		16	RV0QRL250	2 01 952 010	10	300	0.016	3	20	7	41
1		16	RV0QRL320	2 01 952 010	10	200	0.025	3	23	7	50
1 1/4		16	RV0QRL400	2 01 952 010	150	0	0.040	3	27	8	61
1 1/2		16	RV0QRL500	2 01 952 010	140	0	0.060	2	30	8	73
2		16	RV0QRL630	2 01 952 010	90	0	0.105	4	36	9	90
2 1/2	65	16	RV0QRI750	2 01 950 010	50	0	0.170	3	44	10	106
3		16	RV0QRL900	2 01 952 010	38	0	0.277	3	51	11	125
4		16	RV0QRL910	2 01 952 010	24	0	0.380	6	63	12	150
5	125	16	RV0QRI930	2 01 950 010	20	0	0.750	5	76	14	188
6		16	RV0QRL940	2 01 952 010	15	0	0.895	5	90	16	213
8		16	RV0QRL970	2 01 952 010	6	0	1.700	6	116	19	274

Union bush PVC-U Inch BS

Suitable for BOL



d (inch)	d (mm)	PN (bar)	Code	PF	SP	Weight (kg)	Z (mm)	L (mm)	F (inch)
3/8		16	RV0BFL160	2 01 952 010	600	0.010	10	15	3/4
1/2		16	RV0BFL200	2 01 952 010	300	0.015	10	17	1
3/4		16	RV0BFL250	2 01 952 010	180	0.025	10	20	1 1/4
1		16	RV0BFL320	2 01 952 010	500	0.034	10	23	1 1/2
1 1/4		16	RV0BFL400	2 01 952 010	75	0.057	11	27	2
1 1/2		16	RV0BFL500	2 01 952 010	50	0.078	15	30	2 1/4
2		16	RV0BFL630	2 01 952 010	25	0.134	20	36	2 3/4
2 1/2	75	16	RV0BFI750	2 01 950 010	125	0.205	18	44	3 1/2
3		16	RV0BFL900	2 01 952 010	80	0.270	19	51	4
4		16	RV0BFL910	2 01 952 010	48	0.465	16	63	5

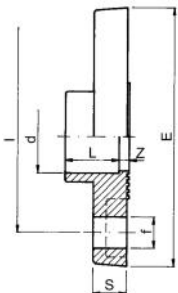


Union end PVC-U Inch BS

Suitable for BOL/BOR

d (inch)	d (mm)	PN (bar)	Code	PF	SP	Weight (kg)	Z (mm)	L (mm)	d1 (mm)
3/8		16	RV0BLL160	2 01 952 010	1000	0.006	3	15	24
1/2		16	RV0BLL200	2 01 952 010	500	0.009	3	17	30
3/4		16	RV0BLL250	2 01 952 010	300	0.016	3	20	39
1		16	RV0BLL320	2 01 952 010	650	0.022	3	23	45
1 1/4		16	RV0BLL400	2 01 952 010	120	0.040	2	27	57
1 1/2		16	RV0BLL500	2 01 952 010	85	0.043	4	30	63
2		16	RV0BLL630	2 01 952 010	130	0.080	5	36	78
2 1/2	75	16	RV0BLL750	2 01 950 010	165	0.150	3	44	97
3		16	RV0BLL900	2 01 952 010	100	0.195	6	51	110
4		16	RV0BLL910	2 01 952 010	66	0.350	3	63	135

Fixed flange PVC-U Inch BS



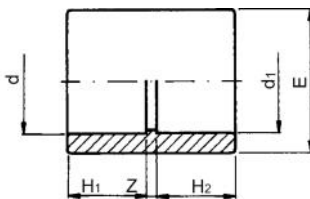
d (inch)	d (mm)	PN-PN (bar)	Code	PF	SP	Weight (kg)	l (mm)	E (mm)	f (mm)	L (mm)	Z (mm)
1/2		10 - 16	RV0FFL200	2 01 952 010	100	0.070	65	95	14	17	4
3/4		10 - 16	RV0FFL250	2 01 952 010	70	0.105	75	105	14	20	4
1		10 - 16	RV0FFL320	2 01 952 010	120	0.145	85	115	14	23	4
1 1/4		10 - 16	RV0FFL400	2 01 952 010	60	0.220	100	140	18	27	4
1 1/2		10 - 16	RV0FFL500	2 01 952 010	50	0.270	10	150	18	30	6
2		10 - 16	RV0FFL630	2 01 952 010	40	0.390	125	165	18	36	7
2 1/2	75		RV0FFI750	2 01 950 010	20	0.505	145	185	18	44	6
3		10 - 16	RV0FFL900	2 01 952 010	15	0.700	160	200	18	51	8
4		10 - 16	RV0FFL910	2 01 952 010	10	0.870	180	220	18	63	6
5	140		RV0FFI930	2 01 950 010	6	1.335	210	250	18	76	7
6		10 - 16	RV0FFL940	2 01 952 010	5	1.853	240	285	22	86	7

PVC-U adaptor fittings

Solvent cement jointing

British standard Inch plain/ISO metric plain

Plain socket Inch BS/metric



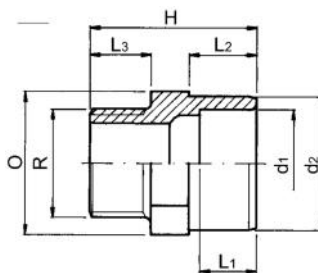
d (mm)	d1 (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	Z (mm)	H1 (mm)	H2 (mm)	E (mm)
16	3/8	16	RV0MAT16A	2 01 952 010	10	500	0.006	3	15	14	22
20	1/2	16	RV0MAT20B	2 01 952 010	10	300	0.010	3	17	16	26
25	3/4	16	RV0MAT25C	2 01 952 010	10	200	0.022	3	20	19	32
32	1	16	RV0MAT32D	2 01 952 010	10	130	0.036	3	23	22	40
40	1 1/4	16	RV0MAT40E	2 01 952 010	100	0	0.054	2	27	26	51
50	1 1/2	16	RV0MAT50F	2 01 952 010	60	0	0.093	4	30	31	61
63	2	16	RV0MAT63G	2 01 952 010	70	0	0.160	6	36	38	75
75	2 1/2	16	RV0MAI750	2 01 950 010	48	0	0.226	4	44	44	89
90	3	16	RV0MAT90I	2 01 952 010	60	0	0.353	6	51	51	106
110	4	16	RV0MAT91L	2 01 952 010	32	0	0.565	4	63	61	129
140	5	16	RV0MAI930	2 01 950 010	14	0	1.100	8	76	76	162
160	6	16	RV0MAT940	2 01 952 010	9	0	1.540	8	90	86	190

PVC-U adaptor fittings

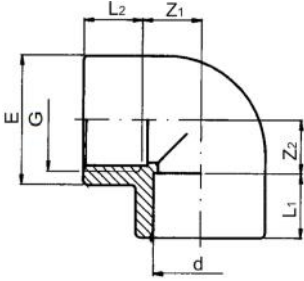
British standard Inch plain/B.S.P. threaded

PF 2 01 952 010

Threaded adaptor R PVC-U Inch BS 3 diameters



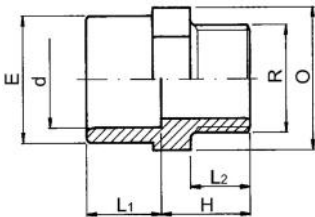
d1 (inch)	d2 (inch)	R (inch)	PN (bar)	Code	SP	GP	Weight (kg)	H (mm)	L1 (mm)	L2 (mm)	L3 (mm)	O (mm)
3/8	1/2	3/8	16	RV0AMR16A	10	500	0.010	40	15	16	11	24
3/8	1/2	1/2	16	RV0AMR16B	10	440	0.011	43	15	16	15	24
1/2	3/4	1/2	16	RV0AMR20B	10	280	0.014	46	17	19	15	30
1/2	3/4	3/4	16	RV0AMR20C	10	280	0.019	47	17	19	16	30
3/4	1	3/4	16	RV0AMR25C	10	180	0.027	50	20	22	16	36
3/4	1	1	16	RV0AMR25D	10	160	0.029	53	20	22	19	36
1	1 1/4	1	16	RV0AMR32D	10	120	0.042	57	23	26	19	46
1	1 1/4	1 1/4	16	RV0AMR32E	10	100	0.045	60	23	26	21	46
1 1/4	1 1/2	1 1/4	16	RV0AMR40E	85	0	0.073	67	27	31	21	55
1 1/4	1 1/2	1 1/2	16	RV0AMR40F	80	0	0.076	67	27	31	21	55
1 1/2	2	1 1/2	16	RV0AMR50F	100	0	0.110	74	30	38	21	65
1 1/2	2	2	16	RV0AMR50G	100	0	0.120	78	30	38	26	65
2	2 1/2	2	16	RV0AMR63G	70	0	0.172	84	36	44	26	80
2	2 1/2	2 1/2	16	RV0AMR63H	50	0	0.170	91	36	44	30	80
2 1/2	3	2 1/2	16	RV0AMR75H	54	0	0.268	99	44	51	30	95
2 1/2	3	3	16	RV0AMR75I	36	0	0.280	102	44	51	33	95
3	4	3	16	RV0AMR90I	25	0	0.555	113	51	61	33	115
3	4	4	16	RV0AMR90L	16	0	0.485	118	51	61	39	115



Plain/threaded elbow 90° PVC-U Inch BS

d (inch)	d (mm)	G (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)
3/8		3/8	16	RV0GOR16A	2 01 952 010	10	360	0.013
1/2		1/2	16	RV0GOR20B	2 01 952 010	10	200	0.021
3/4		3/4	16	RV0GOR25C	2 01 952 010	10	160	0.035
1		1	16	RV0GOR32D	2 01 952 010	10	80	0.052
1 1/4		1 1/4	16	RV0GOR40E	2 01 952 010	130	0	0.091
1 1/2		1 1/2	16	RV0GOR50F	2 01 952 010	80	0	0.155
2		2	16	RV0GOR63G	2 01 952 010	40	0	0.265
2 1/2	75	2 1/2	16	RV0GOP75H	2 01 951 011	50	0	0.420
3		3	16	RV0GOR90I	2 01 952 010	30	0	0.670
4		4	16	RV0GOR91L	2 01 952 010	15	0	1.055

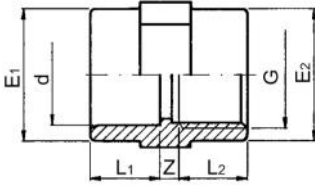
d (inch)	L1 (mm)	L2 (mm)	Z1 (mm)	Z2 (mm)	E (mm)
3/8	15	11	9	12	23
1/2	17	15	11	12	28
3/4	20	16	14	17	34
1	23	23	17	20	42
1 1/4	27	21	20	26	51
1 1/2	30	21	27	36	61
2	36	26	35	45	75
2 1/2	44	30	39	53	89
3	51	33	48	65	106
4	63	39	55	79	129



Threaded adaptor R PVC-U Inch BS 2 diameters

d (inch)	d (mm)	R (inch)	PN (bar)	Code	PF	SP	Weight (kg)	O (mm)	Z (mm)	L2 (mm)	E (mm)	L (mm)
2 1/2	75	2 1/2	16	RV0ADP75H	2 01 951 011	72	0.210	90		30	89	42
3		3	16	RV0ADR90I	2 01 952 010	40	0.330	110	47	33	106	
4		4	16	RV0ADR91L	2 01 952 010	35	0.460	130	49	39	129	

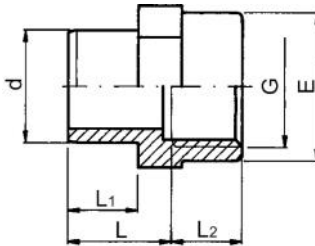
Plain/threaded socket PVC-U Inch BS



d (inch)	d (mm)	G (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)
3/8		3/8	16	RV0MAR16A	2 01 952 010	10	500	0.009
1/2		1/2	16	RV0MAR20B	2 01 952 010	10	250	0.017
3/4		3/4	16	RV0MAR25C	2 01 952 010	10	200	0.023
1		1	16	RV0MAR32D	2 01 952 010	10	130	0.042
1 1/4		1 1/4	16	RV0MAR40E	2 01 952 010	100	0	0.060
1 1/2		1 1/2	16	RV0MAR50F	2 01 952 010	60	0	0.087
2		2	16	RV0MAR63G	2 01 952 010	80	0	0.134
2 1/2	75	2 1/2	16	RV0MAP75H	2 01 951 011	110	0	0.215
3		3	16	RV0MAR90I	2 01 952 010	64	0	0.351
4		4	16	RV0MAR91L	2 01 952 010	35	0	0.478

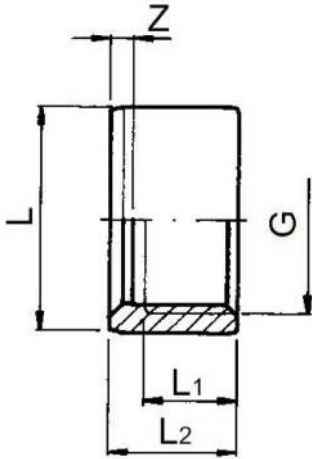
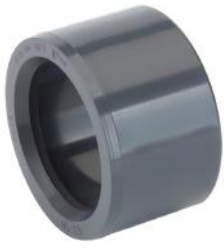
d (inch)	E1 (mm)	E2 (mm)	L1 (mm)	Z1 (mm)	L2 (mm)
3/8	23	23	15	6	11
1/2	28	28	17	4	15
3/4	34	34	20	6	16
1	42	42	23	6	19
1 1/4	51	51	27	7	21
1 1/2	61	58	30	9	21
2	75	72	36	10	26
2 1/2	89	89	44	8	30
3	106	103	51	10	33
4	129	130	63	8	39

Threaded adaptor G PVC-U Inch BS



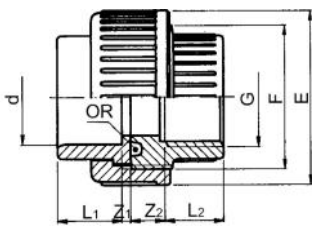
d (inch)	d (mm)	G (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)	L (mm)	L1 (mm)	L2 (mm)	E (mm)
3/8		3/8	16	RV0AFR16A	2 01 952 010	10	600	0.016	22	14	11	23
1/2		1/2	16	RV0AFR20B	2 01 952 010	10	300	0.019	24	16	15	28
3/4		3/4	16	RV0AFR25C	2 01 952 010	10	180	0.027	27	19	16	32
1		1	16	RV0AFR32D	2 01 952 010	10	80	0.043	30	22	19	42
1 1/4		1 1/4	16	RV0AFR40E	2 01 952 010	90	0	0.065	36	26	21	51
1 1/2		1 1/2	16	RV0AFR50F	2 01 952 010	150	0	0.073	41	31	21	58
2		2	16	RV0AFR63G	2 01 952 010	168	0	0.135	48	38	26	72
2 1/2	75	2 1/2	16	RV0AFP75H	2 01 951 011	90	0	0.225	58	44	30	89
3		3	16	RV0AFR90I	2 01 952 010	60	0	0.310	65	51	33	103
4		4	16	RV0AFR91L	2 01 952 010	32	0	0.480	76	61	39	130

Plain/threaded reducing bush PVC-U Inch BS



d (inch)	G (inch)	PN (bar)	Code	SP	GP	Weight (kg)	Z (mm)	L1 (mm)	L2 (mm)
1/2	3/8	16	RV0RCR20A	10	800	0.004	5	11	17
3/4	1/2	16	RV0RCR25B	10	600	0.007	5	15	20
1	3/4	16	RV0RCR32C	10	400	0.012	6	16	23

Plain/threaded union with o-ring PVC-U Inch BS

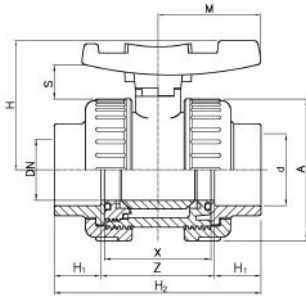


d (inch)	d1 (mm)	G (inch)	PN (bar)	Code	PF	SP	GP	Weight (kg)
3/8		3/8	16	RV0BOR16A	2 01 952 010	10	250	0.031
1/2		1/2	16	RV0BOR20B	2 01 952 010	10	150	0.042
3/4		3/4	16	RV0BOR25C	2 01 952 010	10	100	0.070
1		1	16	RV0BOR32D	2 01 952 010	10	60	0.091
1 1/4		1 1/4	16	RV0BOR40E	2 01 952 010	90	0	0.155
1 1/2		1 1/2	16	RV0BOR50F	2 01 952 010	60	0	0.237
2		2	16	RV0BOR63G	2 01 952 010	36	0	0.405
2 1/2	75	2 1/2	16	RV0BOP75H	2 01 951 011	20	0	0.625
3		3	16	RV0BOR90I	2 01 952 010	15	0	0.865
4		4	16	RV0BOR91L	2 01 952 010	18	0	1.340

d (inch)	L1 (mm)	L2 (mm)	Z1 (mm)	F (inch)	Z2 (mm)	E (mm)
3/8	15	11	3	3/4	14	34
1/2	17	15	3	1	11	42
3/4	20	16	3	1 1/4	13	52
1	23	19	3	1 1/2	13	59
1 1/4	27	21	2	2	17	72
1 1/2	30	21	4	2 1/4	24	79
2	36	26	5	2 3/4	30	96
2 1/2	44	30	3	3 1/2	32	119
3	51	33	6	4	36	134
4	63	39	3	5	40	163

PVC-U safeblock ball valves

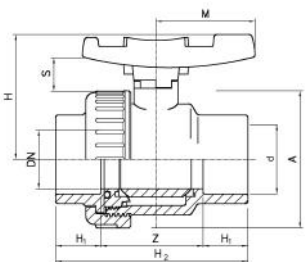
British standard range



Double union safe block ball valve PVC-U
With solvent cement sockets Inch BS

d (inch)	d (mm)	DN (mm)	PN (bar)	EPDM Code	PF	SP	Weight (kg)
3/8			16	VSA22L160	2 02 956 011	150	0.130
1/2			16	VSA22L200	2 02 956 011	150	0.130
3/4			16	VSA22L250	2 02 956 011	100	0.205
1			16	VSA22L320	2 02 956 011	60	0.290
1 1/4			16	VSA22L400	2 02 956 011	36	0.435
1 1/2			16	VSA22L500	2 02 956 011	24	0.670
2			10	VSA22L630	2 02 956 011	13	1.125
2 1/2	75	65	10	VSA22I750	2 02 956 010	8	2.200
3			10	VSA22L900	2 02 956 011	4	3.310
4			10	VSA22L910	2 02 956 011	2	5.925

d (inch)	S (mm)	H1 (mm)	A (mm)	H2 (mm)	X (mm)	M (mm)	Z (mm)	H (mm)
3/8	19	14	50	76	42	40	48	53
1/2	19	16	50	80	42	40	48	43
3/4	19	19	59	91	48	45	53	60
1	21	22	68	102	54	51	58	67
1 1/4	25	26	80	120	62	59	68	79
1 1/2	27	31	94	140	72	70	78	90
2	29	38	115	169	86	84	93	107
2 1/2	32	44	145	206	110	103	118	129
3	36	51	168	242	128	120	140	143
4	43	61	210	282	150	141	160	169



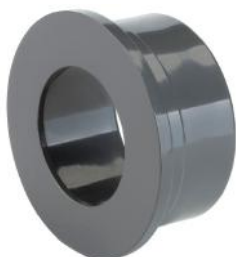
Single union ball valve PVC-U
With solvent cement sockets Inch BS

d (inch)	d (mm)	DN (mm)	PN (bar)	EPDM Code	PF	SP	Weight (kg)
3/8			16	VSA18L160	2 02 956 011	180	0.100
1/2			16	VSA18L200	2 02 956 011	180	0.100
3/4			16	VSA18L250	2 02 956 011	120	0.160
1			16	VSA18L320	2 02 956 011	75	0.230
1 1/4			16	VSA18L400	2 02 956 011	45	0.340
1 1/2			16	VSA18L500	2 02 956 011	28	0.535
2			10	VSA18L630	2 02 956 011	16	0.890
2 1/2	75	65	10	VSA18I750	2 02 956 010	8	1.640
3			10	VSA18L900	2 02 956 011	5	2.450
4			10	VSA18L910	2 02 956 011	2	4.100

d (inch)	L1 (mm)	L2 (mm)	X (mm)	Z (mm)	M (mm)	S (mm)	H1 (mm)	A (mm)	H2 (mm)	H (mm)
3/8			42	48	40	19	14	50	76	53
1/2			42	48	40	19	16	50	80	53
3/4			48	53	45	19	9	59	91	60
1			54	58	51	21	22	68	102	67
1 1/4			62	68	59	25	26	80	120	79
1 1/2			72	78	70	27	31	94	140	90
2			86	93	84	29	38	115	169	107
2 1/2	44	206		118	103	32		145		129
3			128	140	120	36	51	168	242	143
4			150	160	141	13	61	210	282	169

Spare parts

PF 2 02 962 010



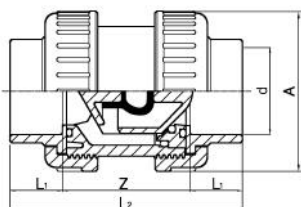
Solvent cement socket Inch BS

Suitable for VSA

d (inch)	PN (bar)	Code
3/8	16	3VCLV1L16
1/2	16	3VCLV1L20
3/4	16	3VCLV1L25
1	16	3VCLV1L32
1 1/4	16	3VCLV1L40
1 1/2	16	3VCLV1L50
2	16	3VCLV1L63
2 1/2	10	3VCLV1I75
3	10	3VCLV1L90
4	10	3VCLV1L91

PVC-U single flow direction valves British standard range

PF 2 02 961 010



Double union check valve PVC-U With solvent cement sockets Inch BS

• (*)Body and dimensions = 3"

d (inch)	d (mm)	DN (mm)	PN (bar)	EPDM Code	SP	Weight (kg)	A (mm)	L1 (mm)	L2 (mm)	Z (mm)
3/8			16	VR021L160	32	0.110	50	14	76	48
1/2			16	VR021L200	32	0.110	50	16	80	48
3/4			16	VR021L250	32	0.175	59	19	91	53
1			16	VR021L320	20	0.245	68	22	102	58
1 1/4			16	VR021L400	15	0.375	80	26	120	68
1 1/2			16	VR021L500	6	0.580	94	31	140	78
2			10	VR021L630	4	1.000	115	38	169	93
* 2 1/2	75	65	10	VR021I750	2	2.950	168	44	206	118
3			10	VR021L900	2	3.100	168	51	242	140

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1ORD00117T	60	3V0VFSG02	60	APOSPT500	36	RP0ATS400	28
1ORD03037T	60	3VCLV1F16	43	APOSPT630	36	RP0ATS500	28
1ORD03043T	60	3VCLV1F20	43	APOSPT750	36	RV0AAP16A	35
1ORD03062	36	3VCLV1F25	43	APOSPT900	36	RV0AAP20B	35
1ORD03068T	60	3VCLV1F32	43	APOSPT910	36	RV0AAP20C	35
1ORD03093T	60	3VCLV1F40	43	APOSPT920	36	RV0AAP25B	35
1ORD04081	36	3VCLV1F50	43	APOSPT930	36	RV0AAP25C	35
1ORD04112	36	3VCLV1F63	43	APOSPT940	36	RV0AAP25D	35
1ORD04131	36	3VCLV1F75	43	ARVSCPF20	55	RV0AAP32C	35
1ORD06162	36	3VCLV1F90	43	ARVSCPF25	55	RV0AAP32D	35
1ORD06187	36	3VCLV1F91	43	ARVSCPF32	55	RV0AAP40D	35
1ORD06237	36	3VCLV1116	42	ARVSCPF40	55	RV0AAP40E	35
1ORD06312	36	3VCLV1120	42	ARVSCPF50	55	RV0AAP50E	35
1ORD06362	36	3VCLV1125	42	ARVSCPF63	55	RV0AAP50F	35
1ORD06450	36	3VCLV1132	42	ARVSCPF90	55	RV0AAP50G	35
2G0VF1ED75	59	3VCLV1140	42	AVSSTF200	43	RV0AAP63G	35
2G0VF1ED90	59	3VCLV1150	42	AVSSTF250	43	RV0AAP75G	35
2G0VF1ED91	59	3VCLV1163	42	AVSSTF320	43	RV0ADP75H	31, 70
2G0VF1ED92	59	3VCLV1175	42, 74	AVSSTF400	43	RV0ADP90I	31
2G0VF1ED94	59	3VCLV1190	42	AVSSTF500	43	RV0ADP91L	31
2G0VF1ED96	59	3VCLV1191	42	AVSSTF630	43	RV0ADR90I	70
2G0VF1OD75	59	3VCLV1L16	74	DV0DEF32A	19	RV0ADR91L	70
2G0VF1OD90	59	3VCLV1L20	74	DV0DEF32Z	19	RV0AFP16A	31
2G0VF1OD91	59	3VCLV1L25	74	DV0DEF40A	19	RV0AFP20B	31
2G0VF1OD92	59	3VCLV1L32	74	DV0DEF50A	19	RV0AFP20C	31
2G0VF1OD94	59	3VCLV1L40	74	DV0DEF50B	19	RV0AFP25B	31
2G0VF1OD96	59	3VCLV1L50	74	DV0DEF50C	19	RV0AFP25C	31
2GRNPD160	15	3VCLV1L63	74	DV0DEF50Z	19	RV0AFP25D	31
2GRNPD200	15	3VCLV1L90	74	DV0DEF63A	19	RV0AFP32C	31
2GRNPD250	15	3VCLV1L91	74	DV0DEF63B	19	RV0AFP32D	31
2GRNPD320	15	3VGHROA20	42	DV0DEF63C	19	RV0AFP40D	31
2GRNPD400	15	3VGHROA25	42	DV0DEF75A	19	RV0AFP40E	31
2GRNPD500	15	3VGHROA32	42	DV0DEF75C	19	RV0AFP50E	31
2GRNPD630	15	3VGHROA40	42	DV0DEF75D	19	RV0AFP50F	31
2GRNPD750	15	3VGHROA50	42	DV0DEF90B	19	RV0AFP50G	31
2GRNPD900	15	3VGHROA63	43	DV0DEF90D	19	RV0AFP63G	31
2GRNPD910	15	3VGHROA75	43	DV0DEF90F	19	RV0AFP75G	31
2GRNPD920	15	3VGHROA90	43	DV0DEF91B	19	RV0AFP75H	31, 71
2GRNPD930	16	3VGHROA91	43	DV0DEI50B	17	RV0AFP75I	31
2GRNPD940	16	3VMNGOA20	42	DV0DEI50D	17	RV0AFP90H	31
2GRNPD960	16	3VMNGOA25	42	DV0DEI63B	17	RV0AFP90I	32
2GRNPD970	16	3VMNGOA32	42	DV0DEI63C	17	RV0AFP90L	32
2MLL01D20	55	3VMNGOA40	42	DV0DEI63D	17	RV0AFP91I	32
2MLL01D25	55	3VMNGOA50	42	DV0DEI75F	17	RV0AFP91L	32
2MLL01D32	55	3VMNGOA63	42	DV0DEI90F	17	RV0AFR16A	71
2MLL01D40	55	3VMNGOA75	42	DV0DEI90G	17	RV0AFR20B	71
2MLL01D50	55	3VMNGOA90	42	DV0DEI91E	17	RV0AFR25C	71
2MLL01D63	55	3VMNGOA91	42	DV0DEI91F	17	RV0AFR32D	71
2MLL01D90	55	3VMNG1D20	41	DV0DEI91G	17	RV0AFR40E	71
3ECLV200	43	3VMNG1D25	41	DV0DEI92F	17	RV0AFR50F	71
3ECLV250	43	3VMNG1D32	41	DV0DEI93E	17	RV0AFR63G	71
3ECLV320	43	3VMNG1D40	41	DV0DEI93G	17	RV0AFR90I	71
3ECLV400	43	3VMNG1D50	41	DV0DEI94G	17	RV0AFR91L	71
3ECLV500	43	3VMNG1D63	41	DV0DEI96G	17	RV0AMP12A	30
3ECLV630	43	3VMNG1D75	41	DV0DEI97G	17	RV0AMP16A	30
3ECLV750	43	3VMNG1D90	41	DV0DMF50B	19	RV0AMP16B	30
3ECLV900	43	3VMNG1D91	41	DV0DMF90F	19	RV0AMP20A	30
3ECLV910	43	APOSPT160	36	DV0DMF91D	19	RV0AMP20B	30
3V0VFMDO4	59	APOSPT200	36	DV0DMF93F	19	RV0AMP20C	30
3V0VFMDO5	59	APOSPT250	36	RP0ATS200	28	RV0AMP25B	30
3V0VFMDO6	59	APOSPT320	36	RP0ATS250	28	RV0AMP25C	30
3V0VFSG01	60	APOSPT400	36	RP0ATS320	28	RV0AMP25D	30

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RV0AMP32E	30	RV0BF1500	14	RV0BMM25C	33	RV0CAF320	27
RV0AMP40D	30	RV0BF1630	14	RV0BMM32D	33	RV0CAF400	27
RV0AMP40E	30	RV0BF1750	14, 67	RV0BMM40E	33	RV0CAF500	27
RV0AMP40F	30	RV0BF1900	14	RV0BMM50F	33	RV0CAF630	27
RV0AMP50E	30	RV0BF1910	14	RV0BMM63G	33	RV0CAF750	27
RV0AMP50F	30	RV0BFL160	67	RV0BMP25C	32	RV0CAF900	27
RV0AMP50G	30	RV0BFL200	67	RV0BMP32D	32	RV0CAF910	27
RV0AMP63F	31	RV0BFL250	67	RV0BMP40E	32	RV0CAI160	12
RV0AMP63G	31	RV0BFL320	67	RV0BMP50F	32	RV0CAI200	12
RV0AMP63H	31	RV0BFL400	67	RV0BMP50G	32	RV0CAI250	12
RV0AMP75G	31	RV0BFL500	67	RV0BMP63G	32	RV0CAI320	12
RV0AMP75H	31	RV0BFL630	67	RV0BOF160	25	RV0CAI400	12
RV0AMP75I	31	RV0BFL900	67	RV0BOF200	25	RV0CAI500	12
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General Conditions of Supply

1. General

- 1.1 These general conditions shall apply to all goods supplied by Georg Fischer TPA srl to the Purchaser. They shall also apply to all future business even when no express reference is made to them.
- 1.2 Any deviating or supplementary conditions, especially Purchaser's general conditions of purchase, and verbal agreements shall only be applicable if accepted in writing by Georg Fischer TPA srl.

2. Tenders

Tenders shall only be binding if they contain a specifically stated period for acceptance.

3. Scope of Delivery

- 3.1 Georg Fischer TPA srl's product range is subject to change.
- 3.2 The confirmation of order shall govern the scope and execution of the contract.

4. Data and Documents

- 4.1 Technical documents such as drawings, descriptions, illustrations and data on dimensions, performance and weight as well as the reference to standards are for information purposes only. They are not warranted characteristics and are subject to change.
- 4.2 All technical documents shall remain the exclusive property of Georg Fischer TPA srl and may only be used for the agreed purposes or as Georg Fischer TPA srl may consent.
- 4.3 In the context of the contractual relation with the Purchaser personal data may be processed. The Purchaser agrees to the disclosure of said data to third parties, such as foreign subcontractors and suppliers etc.

5. Local Laws and Regulations

The Purchaser shall bring to the attention of Georg Fischer TPA srl all local laws and regulations at the place of destination which bear connection with the execution of the contract and the adherence to relevant safety regulations and approval procedures.

6. Prices

- 6.1 Unless agreed otherwise, the prices shall be deemed quoted net, ex works, including standard packing. All supplementary costs, such as the cost of carriage, insurance, export and import licences, etc. shall be borne by the Purchaser. The Purchaser shall also bear the costs of all taxes, fees, duties, etc. connected with the contract.
- 6.2 If the costs of packing, carriage, insurance, fees and other supplementary costs are included in the tender price or contract price or are referred to specifically in the tender or confirmation of order, Georg Fischer TPA srl reserve the right to revise their prices accordingly should any change occur in the relevant tariffs.

7. Payment

- 7.1 The Purchaser shall make payment in the manner agreed by the parties to the Georg Fischer works conducting the account without any deductions such as discounts, costs, taxes or dues.
- 7.2 The Purchaser may only withhold or off-set payments due against counter-claims which are either expressly acknowledged by Georg Fischer TPA srl or finally awarded to the Purchaser. In particular, payment shall still be made when unessential items are still outstanding provided, however, that the goods already delivered are not rendered unusable as a result.

8. Retention of Title

- 8.1 The goods shall remain the property of Georg Fischer TPA srl until the Purchaser shall have settled all claims, present and future, which Georg Fischer TPA srl may have against him.
- 8.2 Should the Purchaser sell goods to which title is reserved he shall then be deemed to have tacitly assigned to Georg Fischer TPA srl the proceeds deriving from their sale together with all collateral rights, securities and reservations of title until all claims held by Georg Fischer TPA srl shall have been settled.
- 8.3 To the extent the value of the goods to which title is reserved together with collateral securities should exceed Georg Fischer TPA srl's claims against the Purchaser by more than 20%, Georg Fischer TPA srl shall reassign the above proceeds to Purchaser at his request.
- 8.4 In case of default on the part of the Purchaser, in particular in case of arrears, Georg Fischer shall be entitled to repossession of the goods after having given notice to this effect, and the Purchaser shall be obligated to surrender the goods.

9. Delivery

- 9.1 The term of delivery shall commence as soon as the contract has been entered into, all official formalities such as import and payment permits have been obtained and all essential technical points have been settled. The term of delivery shall be deemed duly observed when, upon its expiry, the goods are ready for despatch.
- 9.2 Delivery is subject to the following conditions, i. e. the term of delivery shall be reasonably extended:
- if Georg Fischer TPA srl are not supplied in time with the information necessary for the execution of the contract or if subsequent changes causing delays are made by the Purchaser;
 - if Georg Fischer TPA srl are prevented from performing the contract by force majeure. Force majeure shall equally be deemed to be any unforeseeable event beyond Georg Fischer TPA srl's control which renders Georg Fischer TPA srl's performance commercially unpracticable or impossible, such as delayed or defective supplies from subcontractors, labour disputes, governmental orders or regulations, shortages in materials or energy, serious disturbances in Georg Fischer TPA srl's works, such as the total or partial destruction of plant and equipment or the breakdown of essential facilities, serious disruptions in transport facilities, e.g. impassable roads. Should the effect of force majeure exceed a period of six months, either party may cancel the contract forthwith. Georg Fischer TPA srl shall not be liable for any damage or loss of any kind whatsoever resulting therefrom, any suspension or cancellation being without prejudice to Georg Fischer TPA srl's right to recover all sums due in respect of consignments delivered and costs incurred to date.
 - if the Purchaser fails to fulfil or delays in fulfilling his obligations under the contract, in particular if he does not adhere to the agreed conditions of payment.
- 9.3 If for reasons attributable to Georg Fischer TPA srl a reasonable term of delivery is exceeded, Georg Fischer TPA srl shall not be deemed in default until the Purchaser has granted to Georg Fischer TPA srl in writing a reasonable extension thereof of not less than one month which equally is not met. The Purchaser shall then be entitled to cancel the contract.

- 9.4 If the Purchaser fails to take delivery within a reasonable time of goods notified as ready for despatch, Georg Fischer TPA srl shall be entitled to store the goods at the Purchaser's expense and risk and to invoice them as delivered.
- 9.5 Partial shipments shall be allowed and Georg Fischer TPA srl shall be entitled to invoice for such deliveries.
- 9.6 If Georg Fischer TPA srl do not insist on the performance of a contract cancelled by the Purchaser, a penalty of 10% of the contract price shall become due unless Georg Fischer TPA srl can prove greater damages.
- ## 10. Packing
- If the goods are provided with additional packing over and above the standard packing, such packing shall be invoiced separately and be non-returnable.
- ## 11. Passing of Risk
- 11.1 The risk in the goods shall pass to the Purchaser as soon as they have left Georg Fischer TPA srl's works, even if delivery is made carriage-paid, under similar clauses or including installation or when carriage is organized and managed by Georg Fischer TPA srl.
- 11.2 If delivery is delayed for reasons beyond Georg Fischer TPA srl's control, the risk shall pass to the Purchaser when he is notified that the goods are ready for despatch.
- ## 12. Carriage and Insurance
- 12.1 Unless agreed otherwise, the Purchaser shall bear the cost of carriage.
- 12.2 The Purchaser shall be responsible for insurance against damage of whatever kind. Even when such insurance is arranged by Georg Fischer TPA srl it shall be deemed taken out by the order of and for the account of the Purchaser and at his risk.
- 12.3 Special requests regarding carriage and insurance shall be communicated to Georg Fischer TPA srl in due time. Otherwise carriage shall be arranged by Georg Fischer TPA srl at their discretion, but without responsibility, by the quickest and cheapest method possible.
- In case of carriage-paid delivery transport arrangements shall be made by Georg Fischer TPA srl. If the Purchaser specifies particular requirements, any extra costs involved shall be borne by him.
- 12.4 In the event of damage or loss of the goods during carriage the Purchaser shall mark the delivery documents accordingly and immediately have the damage ascertained by the carrier.
- Not readily ascertainable damages sustained during carriage shall be notified to the carrier within six days after receipt of the goods.
- ## 13. Inspection and Acceptance
- 13.1 The goods will be subject to normal inspection by Georg Fischer TPA srl during manufacture. Additional tests required by the Purchaser shall be agreed upon in writing and shall be charged to the Purchaser.
- 13.2 It shall be a condition of Georg Fischer TPA srl's obligation under the warranties stated hereinafter that Georg Fischer TPA srl be notified in writing by the Purchaser of any purported defect immediately upon discovery. Notice concerning weight, numbers or apparent defects is to be given latest within 30 days from receipt of the goods, notice of other defects latest within the agreed warranty period.
- ## 14. Warranty
- 14.1 At the written request of the Purchaser, Georg Fischer TPA srl undertake to repair or replace, at their discretion, as quickly as possible and free of charge all goods supplied which demonstrably suffer from faulty design, materials or workmanship or from faulty operation or installation instructions. Replaced parts shall become property of Georg Fischer TPA srl.
- 14.2 The Purchaser shall be entitled to cancel the contract or to demand a reduction in the contract price if:
- repair or replacement is impossible, or
 - Georg Fischer TPA srl are unable or refuse to remedy the defect or replace the defective goods within a reasonable period of time or are unduly delaying such remedy or replacement.
- 14.3 For goods which are manufactured to specifications, drawings or patterns supplied by the Purchaser, Georg Fischer TPA srl's warranty shall be restricted to proper materials and workmanship.
- 14.4 This warranty shall not apply to damage resulting from normal wear, improper storage and maintenance, failure to observe the operating instructions, over-stressing or overloading, unsuitable operating media, improper repairs or alterations by the Purchaser or third parties, the use of non-genuine parts and other reasons beyond Georg Fischer TPA srl's control.
- 14.5 For goods or essential components manufactured by a third party and supplied by Georg Fischer TPA srl under this contract, Georg Fischer TPA srl's warranty is limited to the warranty provided by said third party.
- 14.6 No action or claim may be brought by the Purchaser on account of any alleged breach of warranty or any other obligation of Georg Fischer TPA srl after the expiration of twelve (12) months from receipt of the goods by the end user or at the latest within eighteen (18) months of the goods being despatched by Georg Fischer TPA srl.
- ## 15. Limitation of Liability
- The warranties set forth above are expressly in lieu of any express warranty of any kind and in lieu of any implied warranty, including any warranty of merchantability or fitness for a particular purpose. Georg Fischer TPA srl shall not be liable for any incidental special or consequential damages, such as loss of profits, loss of production, loss of use or loss of contract, arising for any reason, including damages resulting from delayed delivery, defective design, materials or workmanship or from faulty instructions and whether such damages are claimed to arise from breach of contract, in tort, the theory of product liability or otherwise; reservation is solely being made for Georg Fischer TPA srl's statutory liability due to material breach of an essential contractual obligation, express representations, wrongful intent, gross negligence or product liability acts.
- ## 16. Place of Performance and Jurisdiction
- 16.1 Place of performance for the goods shall be the Georg Fischer TPA srl works from which the goods are despatched.
- 16.2 Any civil action based upon any alleged breach of this contract shall be filed and prosecuted exclusively in the courts having jurisdiction over the Georg Fischer TPA srl works invoicing the goods. Georg Fischer TPA srl however reserves the right to file actions in any court having jurisdiction over controversies arising out of or in connection with the present contract.
- 16.3 The contract shall be governed by the law applicable at the place of business of the Georg Fischer TPA srl works invoicing the goods in question.

Worldwide at Home

Our sales companies and representatives ensure local customer support in over 100 countries

www.gfps.com

Argentina / Southern South America

Georg Fischer Central Plastics Sudamérica S.R.L.
Buenos Aires, Argentina
Phone +54 11 4512 02 90
gfcentral.ps.ar@georgfischer.com
www.gfps.com/ar

Australia

Georg Fischer Pty Ltd
Riverwood NSW 2210 Australia
Phone +61 (0) 2 9502 8000
australia.ps@georgfischer.com
www.gfps.com/au

Austria

Georg Fischer Rohrleitungssysteme GmbH
3130 Herzogenburg
Phone +43 (0) 2782 856 43-0
austria.ps@georgfischer.com
www.gfps.com/at

Georg Fischer Fittings GmbH
3160 Traisen
Phone +43 (0) 2762 90300
fittings.ps@georgfischer.com
www.fittings.at

Belgium / Luxembourg

Georg Fischer NV/SA
1070 Bruxelles/Brüssel
Phone +32 (0) 2 556 40 20
be.ps@georgfischer.com
www.gfps.com/be

Brazil

Georg Fischer Sist. de Tub. Ltda.
04571-020 São Paulo/SP
Phone +55 (0) 11 5525 1311
br.ps@georgfischer.com
www.gfps.com/br

Canada

Georg Fischer Piping Systems Ltd
Mississauga, ON L5T 2B2
Phone +1 (905) 670 8005
Fax +1 (905) 670 8513
ca.ps@georgfischer.com
www.gfps.com/ca

China

Georg Fischer Piping Systems Ltd
Shanghai 201319
Phone +86 21 3899 3899
china.ps@georgfischer.com
www.gfps.com/cn

Chinaust Plastics Corp. Ltd.
Songliandian, Zhuozhou city,
Hebei province, China, 072761
Phone +86 312 395 2000
Fax +86 312 365 2222
chinaust@chinaust.com
www.chinaust.com.cn

Denmark / Iceland

Georg Fischer A/S
2630 Taastrup
Phone +45 (0) 70 22 19 75
info.dk.ps@georgfischer.com
www.gfps.com/dk

Finland

Georg Fischer AB
01510 VANTAA
Phone +358 (0) 9 586 58 25
Fax +358 (0) 9 586 58 29
info.fi.ps@georgfischer.com
www.gfps.com/fi

France

Georg Fischer SAS
95932 Roissy Charles de Gaulle Cedex
Phone +33 (0) 1 41 84 68 84
fr.ps@georgfischer.com
www.gfps.com/fr

Germany

Georg Fischer GmbH
73095 Albershausen
Phone +49 (0) 7161 302 0
info.de.ps@georgfischer.com
www.gfps.com/de

India

Georg Fischer Piping Systems Pvt. Ltd
400 083 Mumbai
Phone +91 22 4007 2000
Fax +91 22 4007 2020
branchoffice@georgfischer.com
www.gfps.com/in

Italy

Georg Fischer S.p.A.
20063 Cernusco S/N (MI)
Phone +39 02 921 861
it.ps@georgfischer.com
www.gfps.com/it

Georg Fischer TPA S.r.l.
IT-16012 Busalla (GE)
Phone +39 010 962 47 11
tpa.ps@georgfischer.com
www.gfps.com/it

Japan

Georg Fischer Ltd
530-0003 Osaka
Phone +81 (0) 6 6341 2451
jp.ps@georgfischer.com
www.gfps.com/jp

Korea

Georg Fischer Korea Co. Ltd
Unit 2501, U-Tower
120 HeungdeokJungang-ro
(Yeongdeok-dong)
Giheung-gu, Yongin-si, Gyeonggi-do
Phone +82 31 8017 1450
Fax +82 31 217 1454
kor.ps@georgfischer.com
www.gfps.com/kr

Malaysia

Georg Fischer (M) Sdn. Bhd.
40460 Shah Alam, Selangor Darul Ehsan
Phone +60 (0) 3 5122 5585
Fax +60 (0) 3 5122 5575
my.ps@georgfischer.com
www.gfps.com/my

Mexico / Northern Latin America

Georg Fischer S.A. de C.V.
Apodaca, Nuevo Leon
CP66636 Mexico
Phone +52 (81) 1340 8586
Fax +52 (81) 1522 8906
mx.ps@georgfischer.com
www.gfps.com/mx

Middle East

Georg Fischer Piping Systems (Switzerland) Ltd
Dubai, United Arab Emirates
Phone +971 4 289 49 60
gcc.ps@georgfischer.com
www.gfps.com/int

Netherlands

Georg Fischer N.V.
8161 PA Epe
Phone +31 (0) 578 678 222
nl.ps@georgfischer.com
www.gfps.com/nt

Georg Fischer Waga N.V.
NL-8160 AG Epe
Phone +31 (0) 578 678 378
waga.ps@georgfischer.com
www.waga.nl

Norway

Georg Fischer AS
1351 Rud
Phone +47 67 18 29 00
no.ps@georgfischer.com
www.gfps.com/no

Poland

Georg Fischer Sp. z o.o.
05-090 Sekocin Nowy
Phone +48 (0) 22 31 31 0 50
poland.ps@georgfischer.com
www.gfps.com/pt

Romania

Georg Fischer Piping Systems (Switzerland) Ltd
020257 Bucharest - Sector 2
Phone +40 (0) 21 230 53 80
ro.ps@georgfischer.com
www.gfps.com/int

Russia

Georg Fischer Piping Systems (Switzerland) Ltd
Moscow 125040
Phone +7 495 748 11 44
ru.ps@georgfischer.com
www.gfps.com/ru

Singapore

Georg Fischer Pte Ltd
11 Tampines Street 92, #04-01/07
528 872 Singapore
Phone +65 6747 0611
Fax +65 6747 0577
sgp.ps@georgfischer.com
www.gfps.com/sg

Spain / Portugal

Georg Fischer S.A.
28046 Madrid
Phone +34 (0) 91 781 98 90
es.ps@georgfischer.com
www.gfps.com/es

Sweden

Georg Fischer AB
117 43 Stockholm
Phone +46 (0) 8 506 775 00
info.se.ps@georgfischer.com
www.gfps.com/se

Switzerland

Georg Fischer Rohrleitungssysteme (Schweiz) AG
8201 Schaffhausen
Phone +41 (0) 52 631 3026
ch.ps@georgfischer.com
www.gfps.com/ch

Taiwan

Georg Fischer Co. Ltd
San Chung Dist., New Taipei City
Phone +886 2 8512 2822
Fax +886 2 8512 2823
www.gfps.com/tw

United Kingdom / Ireland

Georg Fischer Sales Limited
Coventry, CV2 2ST
Phone +44 (0) 2476 535 535
uk.ps@georgfischer.com
www.gfps.com/uk

USA / Caribbean

Georg Fischer LLC
9271 Jeronimo Road
92618 Irvine, CA
Phone +1 714 731 88 00
Fax +1 714 731 62 01
us.ps@georgfischer.com
www.gfps.com/us

Georg Fischer Central Plastics LLC
Shawnee, OK 74801
Phone +1 (405) 273 63 02
gfcentral.ps@georgfischer.com
www.centralplastics.com

International

Georg Fischer Piping Systems (Switzerland) Ltd
8201 Schaffhausen/Switzerland
Phone +41 (0) 52 631 3003
Fax +41 (0) 52 631 2893
info.export@georgfischer.com
www.gfps.com/int

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