

PVC-U Jointing Procedures

PVC-U cement is gap filling

PVC-U cement softens the inside of the fitting and the outside of the pipe to form a joint chemically.

Strength of joint is reduced if surfaces are not cleaned and properly prepared.

1. Cut the pipe end square.
2. Remove burrs and clean out swarf. A chamfer must be filed approx 3mm x 45° (This will prevent the layer of cement being scraped away as the pipe is pushed into the fitting).
3. Use a felt marker pen or pencil to mark the pipe at the distance which will penetrate the socket to the root/stop.
4. Thoroughly clean the surfaces of both pipe and fittings with MEK cleaner on a clean lint-free cloth. Please note it is not necessary to abrade pipe or fitting unless pipes are discoloured/sun bleached.
5. Stir the PVC-U Cement thoroughly.
6. Use a clean brush approximately half as wide as the pipe to be jointed.
Apply cement to the pipe and fittings using longitudinal strokes.
The pipe should have a slightly thicker coating than the fitting.
The prepared areas should be completely covered with cement.
Note: It is important to apply cement quickly to enable assembly without excessive force being required.
7. Immediately after application of cement push pipe fully home into the fitting without rotating.
Hold the pipe and fitting for up to a minute, depending on size, to ensure fitting does not slide off the pipe.
Note: When working under cold conditions ensure the joints are free from frost and moisture and allow extra curing time.
8. Wipe off excess cement from both sides of the joint using a clean lint-free cloth.
9. Replace lids on tins.
10. Clean brush in MEK cleaner.

PRECAUTIONS

The jointing area must be well ventilated

Do not allow a naked flame or smoking in the jointing area

Ensure cement is used prior to its expiry date (shown on bottom of tin)

Wear rubber or latex gloves when applying MEK cleaner and PVC-U cement

Never dilute PVC-U solvent cement

Always replace lids on tins when not in use

Always use clean brushes

Always use clean lint-free cloth or absorbent paper

Use a shelter to keep jointing surfaces dry in wet weather

CEMENT SETTING TIMES

PIPE DIAMETER	UP TO 2"		2 1/2" TO 4"		5" AND ABOVE	
Temperature	Up to 10 bar	Up to 16 bar	Up to 10 bar	Up to 16 bar	Up to 10 bar	Up to 16 bar
>10°C	2 h	4 h	4 h	8 h	8 h	16 h
5°C to 10°C	4 h	8 h	8 h	16 h	16 h	32 h

These times are applicable to UNI100 Griffon cement.

PIPE DIAMETER	UP TO 1 1/2"			2" TO 4"			5" AND ABOVE		
Temperature	5 bar	10 bar	16 bar	5 bar	10 bar	16 bar	5 bar	10 bar	16 bar
>15°C	15 min	30 min	2 h	30 min	1 h	4 h	2 h	8 h	16 h
5°C to 15°C	30 min	1 h	4 h	1 h	2 h	8 h	4 h	16 h	32 h

These times are applicable to WDF-05 Griffon cement.

CEMENT USAGE RECOMMENDATIONS

The following is an estimation of the number of joints likely to be achieved per litre of solvent cement.

NOMINAL BORE	NUMBER OF JOINTS	TYPE AND SIZE OF BRUSH	NUMBER OF PEOPLE
3/8" - 1/2"	1300	4mm Round	1
3/4" - 1"	650	8mm Round	1
1 1/4" - 2"	160	1" Flat	1
2 1/2"	90	2" Flat	1
3"	70	2" Flat	2
4"	30	3" Flat	2
5" - 6"	20	3" Flat	3
8"	12	3" Flat	3
10"	8	3" Flat	3
12"	4	3" Flat	3



NOTE 2



NOTE 3



NOTE 4



NOTE 4



NOTE 6



NOTE 6



NOTE 7



NOTE 8



NOTE 8

INSTALLING THREADED FITTINGS

1. Ensure all threads are clean.
2. Apply PTFE tape to the male thread for 1½ turns in a clockwise direction.
3. Screw the female threaded fitting by hand onto the male thread.
4. It should be possible to screw the fitting on by hand for ⅔ of the thread length.
5. After tightening by hand add an extra ½ turn with a suitable tool ie strap wrench

PRECAUTIONS

Use PTFE tape only. Do not use thread seal paste or any other jointing compound. Do not force tightening of the joint under any circumstances. For connecting plastic pipework systems to metal pipework systems composite unions and/or flanges must be used.

PVC-U PRESSURE PIPES

MANUFACTURING STANDARDS

Imperial PVC-U products are generally manufactured in accordance with the following standards:

Pipe - EN1452-2

Fittings - EN1452-3 / BS4346 Part 1

Threaded Fittings - BS21, DIN2999, ISO7

Unless otherwise stated PVC-U Pressure Fittings have the following pressure ratings:

Solvent Weld - 3/8" to 8" = Class E/15 bar

Threaded = Class D/12 bar

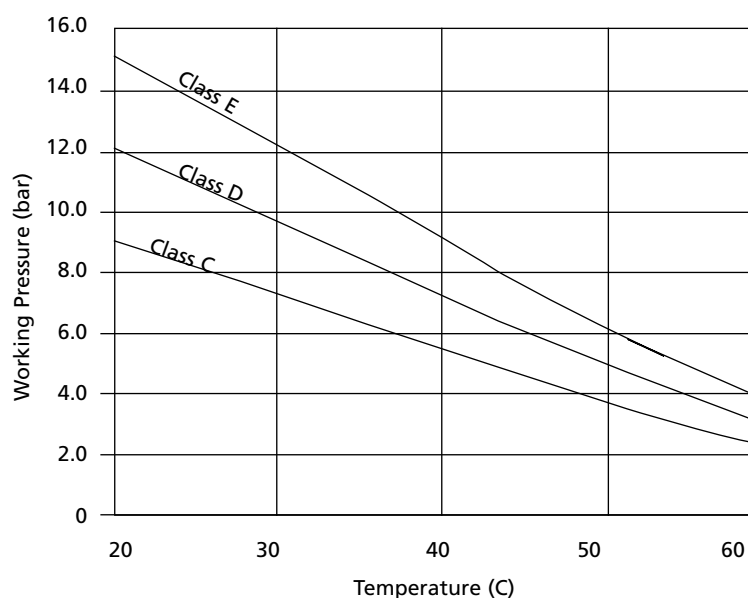
* All quoted at 20°C

PVC-U SYSTEM PRESSURE/TEMPERATURE RELATIONSHIP

Pressure ratings for plastic pipework systems are always quoted at 20°C, it is a fundamental principle of such systems that if the temperature is increased then the pressure rating must be reduced.

PVC-U systems should never be used for temperatures in excess of 60°C.

The following chart gives a rough guide as to the pressure/temperature relationship of PVC-U pipework systems.



In above ground installations it is essential to provide support to ensure that the weight of the pipe and its contents are adequately supported. The recommended maximum support spacings for horizontal runs of PVC-U pipe are given in the table below. Spacings are calculated assuming the pipes are carrying water.

PVC-U PIPEWORK SUPPORT CENTRES

NOMINAL BORE	20°C	25°C	30°C	35°C	40°C	45°C	20°C-45°C
	SPACING GIVEN IN METRES						VERTICAL PIPES
3/8"	0.75	0.67	0.60	0.50	0.40		0.80
1/2"	0.85	0.77	0.70	0.60	0.50		0.90
3/4"	0.90	0.82	0.75	0.65	0.55	0.50	1.00
1"	1.00	0.92	0.85	0.75	0.65	0.57	1.20
1 1/4"	1.10	1.05	1.00	0.90	0.80	0.70	1.40
1 1/2"	1.25	1.20	1.15	1.05	0.95	0.82	1.60
2"	1.40	1.35	1.30	1.20	1.10	0.97	1.80
2 1/2"	1.50	1.45	1.40	1.30	1.20	1.07	2.00
3"	1.65	1.60	1.55	1.45	1.35	1.20	2.20
4"	1.85	1.80	1.75	1.65	1.55	1.37	2.40
5"	2.15	2.10	2.05	1.95	1.85	1.72	2.50
6"	2.25	2.20	2.15	2.07	2.00	1.85	2.50
8"	2.50	2.45	2.40	2.32	2.25	2.12	2.50

PVC-U PRESSURE PIPES

INCH GREY PVC-U PRESSURE PIPE TO EN1452-2



SIZE		CLASS	PIPE OD mm	WALL mm	PIPE ID mm	Wt (Kg/m)
1/2"	UPVC/ETUBE-3-12	E	21.4	1.7	18.0	0.17
3/4"	UPVC/ETUBE-3-34	E	26.7	1.9	22.9	0.24
1"	UPVC/ETUBE-3-1	E	33.6	2.2	29.2	0.35
1.1/4"	UPVC/ETUBE-3-114	E	42.2	2.7	36.8	0.55
1.1/2"	UPVC/ETUBE-3-112	E	48.3	3.1	42.1	0.71
2"	UPVC/CTUBE-3-2	C	60.3	2.5	55.3	0.75
	UPVC/ETUBE-3-2	E	60.3	3.9	52.5	1.10
2 1/2"	UPVC/CTUBE-3-212	C	75.2	3.6	68.8	1.24
	UPVC/ETUBE-3-212	E	75.2	5.6	64.0	1.86
3"	UPVC/CTUBE-3-3	C	88.9	3.5	81.9	1.51
	UPVC/ETUBE-3-3	E	88.9	5.7	77.5	2.37
4"	UPVC/CTUBE-3-4	C	114.3	4.5	105.3	2.47
	UPVC/ETUBE-3-4	E	114.3	7.3	99.7	3.86
5"	UPVC/CTUBE-3-5	C	140.2	6.0	128.2	3.71
	UPVC/ETUBE-3-5	E	140.2	8.3	123.6	6.60
6"	UPVC/CTUBE-3-6	C	168.3	6.6	155.1	5.30
	UPVC/ETUBE-3-6	E	168.3	10.8	146.7	8.37

PIPE IS SUPPLIED PLAIN ENDED.

PRICE ON APPLICATION FOR OTHER END CONFIGURATIONS IE SPIGOT AND SOCKET/RUBBER RING.

PIPES WITH SPIGOT/SOCKET AND RUBBER RING ENDS MAY BE SUBJECT TO MINIMUM

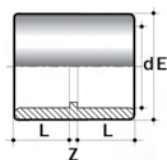
MANUFACTURING QUANTITIES AND/OR LEAD TIMES.

STANDARD PIPE LENGTH SUPPLIED IS 6 METRES OR 5.8 METRES.

ALL WALL THICKNESSES AND PIPE ID'S ARE APPROXIMATE VALUES.

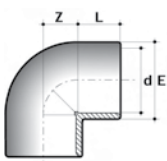
PVC-U PRESSURE FITTINGS PLAIN

SOCKETS SO13



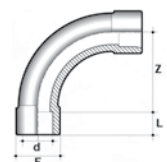
d		L	Z	E	Wt (g)					
1/2"	SO13-12-UPVC	16	3	28	13					
3/4"	SO13-34-UPVC	19	3	34	20					
1"	SO13-1-UPVC	22	3	42	33					
1 1/4"	SO13-114-UPVC	26	3	51	56					
1 1/2"	SO13-112-UPVC	31	3	61	89					
2"	SO13-2-UPVC	38	3	75	168					
2 1/2"	SO13-212-UPVC	44	4	88	222					
3"	SO13-3-UPVC	51	5	106	372					
4"	SO13-4-UPVC	61	6	129	620					
5"	SO13-5-UPVC	76	9	161	1100					
6"	SO13-6-UPVC	86	11	191	1685					
8"	SO13-8-UPVC	119	11	258	4200					

90° ELBOWS EL53



d		L	Z	E	Wt (g)					
1/2"	EL53-12-UPVC	16	11	26.5	15					
3/4"	EL53-34-UPVC	19	14	32.5	24					
1"	EL53-1-UPVC	22	17	41	42					
1 1/4"	EL53-114-UPVC	26	23	50	72					
1 1/2"	EL53-112-UPVC	31	28	60	150					
2"	EL53-2-UPVC	38	34	75	285					
2 1/2"	EL53-212-UPVC	44	40	89	375					
3"	EL53-3-UPVC	51	48	106	655					
4"	EL53-4-UPVC	61	58	129	1080					
5"	EL53-5-UPVC	76	73	164	1990					
6"	EL53-6-UPVC	86	81	188	3990					
8"	EL53-8-UPVC	119	115	258	8600					

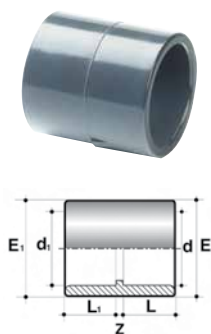
90° SHORT RADIUS BEND BE33



d		L	Z	E	Wt (g)					
1/2"	BE33-12-UPVC	16	40	28	38					
3/4"	BE33-34-UPVC	19	50	35	59					
1"	BE33-1-UPVC	22	64	42	118					
1 1/4"	BE33-114-UPVC	26	80	51	180					
1 1/2"	BE33-112-UPVC	31	100	63	320					
2"	BE33-2-UPVC	38	126	77	535					
2 1/2"	BE33-212-UPVC	44	150	94	1015					
3"	BE33-3-UPVC	51	180	113	1590					
4"	BE33-4-UPVC	61	220	132	2640					

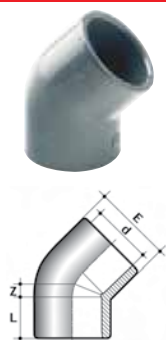
PVC-U PRESSURE FITTINGS PLAIN

INCH/METRIC ADAPTOR SOCKET SO14



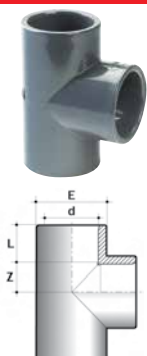
d x d ₁		L ₁	L ₂	Z	E	E ₁	Wt (g)			
3/4" x 25	SO14-3534-UPVC	19	19	3	33	33	23			
1" x 32	SO14-321-UPVC	22	22	3	41	41	36			
1 1/4" x 40	SO14-40114-UPVC	26	26	3	50	50	60			
1 1/2" x 50	SO14-50112-UPVC	31	31	3	60.5	60.5	85			
2" x 63	SO14-632-UPVC	38	38	3	75	75	145			
3" x 90	SO14-903-UPVC	51	51	5	106	106	353			
4" x 110	SO14-1104-UPVC	61	61	6	129	129	605			

45° ELBOW EY53



d		L	Z	E	Wt (g)					
3/8"	EY53-38-UPVC	14	5.5	23	10					
1/2"	EY53-12-UPVC	16	5.5	28	15					
3/4"	EY53-34-UPVC	19	6	34	25					
1"	EY53-1-UPVC	22	8	42	41					
1 1/4"	EY53-114-UPVC	26	10	51	59					
1 1/2"	EY53-112-UPVC	31	12	61	125					
2"	EY53-2-UPVC	38	15	75	215					
2 1/2"	EY53-212-UPVC	44	18	88	310					
3"	EY53-3-UPVC	51	21	106	500					
4"	EY53-4-UPVC	61	25	130	920					
5"	EY53-5-UPVC	76	32	164	1640					
6"	EY53-6-UPVC	86	36	197	2150					
8"	EY53-8-UPVC	119	49	258	6800					
10"	EY53-10-UPVC	147	62	320	12000					

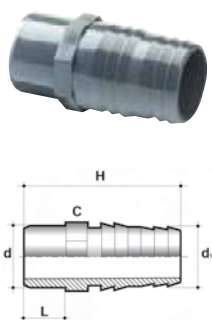
EQUAL TEE TE43



d		L	Z	E	Wt (g)					
1/2"	TE43-12-UPVC	16	11	27.5	21					
3/4"	TE43-34-UPVC	19	14	33.5	35					
1"	TE43-1-UPVC	22	17	42	63					
1 1/4"	TE43-114-UPVC	26	21	51	101					
1 1/2"	TE43-112-UPVC	31	26	61	207					
2"	TE43-2-UPVC	38	33	75	365					
2 1/2"	TE43-212-UPVC	44	39	89	495					
3"	TE43-3-UPVC	51	47	106	837					
4"	TE43-4-UPVC	61	57	129	1440					
5"	TE43-5-UPVC	76	72	162.5	2610					
6"	TE43-6-UPVC	86	81	188	4950					
8"	TE43-8-UPVC	119	114	258	11100					

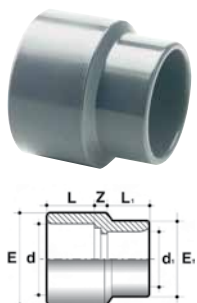
PVC-U PRESSURE FITTINGS PLAIN

HOSE ADAPTOR - MALE SPIGOT x MM HOSE TAIL HN63



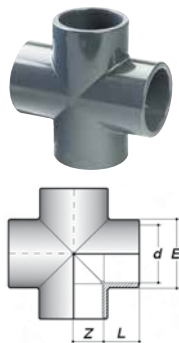
d x d _i		d	d _i	L	H	C	Wt (g)			
1/2" x 20	HN63-12-UPVC	1/2"	20	16	70	24	23			
3/4" x 25	HN63-34-UPVC	3/4"	25	19	79	27	30			
1" x 32	HN63-1-UPVC	1"	32	22	83	36	50			
1 1/4" x 40	HN63-114-UPVC	1 1/4"	40	26	96	46	73			
1 1/2" x 50	HN63-112-UPVC	1 1/2"	50	31	108	55	137			
2" x 60	HN63-2-UPVC	2"	60	38	130	65	208			

REDUCING SOCKET RS13



d x d _i		L	L _i	Z	E	E _i	Wt (g)			
3/4" x 1/2"	RS13-3412-UPVC	19	16	6	34	28	32			
1" x 3/4"	RS13-134-UPVC	22	19	6	42	33	53			
1 1/4" x 1"	RS13-1141-UPVC	26	22	6	51	41	89			
1 1/2" x 1 1/4"	RS13-112112-UPVC	31	26	6	61	50	134			
2" x 1 1/2"	RS13-2112-UPVC	38	31	6	75	60.5	225			
2 1/2" x 2"	RS13-2122-UPVC	44	38	6	89	75	359			
3" x 2 1/2"	RS13-3212-UPVC	51	44	6	106	88	571			
4" x 3"	RS13-43-UPVC	61	51	6	129	106	940			

CROSS CR33

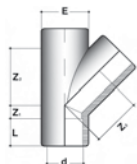


d		L	Z	E	Wt (g)					
1/2"	CR33-12-UPVC	16	11	27.5	26					
3/4"	CR33-34-UPVC	19	14	33.5	41					
1"	CR33-1-UPVC	22	17	42	72					
1 1/4"	CR33-114-UPVC	26	21	51	114					
1 1/2"	CR33-112-UPVC	31	26	61	233					
2"	CR33-2-UPVC	38	33	75	411					
2 1/2"•*	CR33-212-UPVC	44	40	89	776					

* PN10 RATED

PVC-U PRESSURE FITTINGS PLAIN

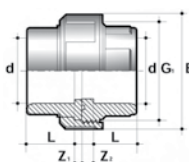
Y PIECE/45° TEE TY43



d		L	Z ₁	Z ₂	E	Wt (g)				
1/2"	TY43-12-UPVC	16	7	29	27.5	36				
3/4"	TY43-34-UPVC	19	7	36	33.5	49				
1"	TY43-1-UPVC	22	8	44	42	92				
1 1/4"	TY43-114-UPVC	26	10	54	50.5	149				
1 1/2"	TY43-112-UPVC	31	12	65	61	297				
2"	TY43-2-UPVC	38	14	80	74.5	513				
2 1/2"*	TY43-212-UPVC	44	18	101	91	690				

* PN10 RATED

UNION UN83

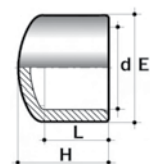


d		L	Z ₁	Z ₂	G ₁	E	Wt (g)			
1/2"	UN83-12-UPVC	16	3	10	1"	42	41			
3/4"	UN83-34-UPVC	19	3	10	1 1/4"	52	67			
1"	UN83-1-UPVC	22	3	10	1 1/2"	59	90			
1 1/4"	UN83-114-UPVC	26	3	12	2"	72	135			
1 1/2"	UN83-112-UPVC	31	3	14	2 1/4"	79	206			
2"	UN83-2-UPVC	38	3	18	2 3/4"	96	360			
2 1/2"*	UN83-212-UPVC	44	3	18	3 1/2"	119	580			
3"*	UN83-3-UPVC	51	5	18	4"	134	777			
4"*	UN83-4-UPVC	61	5	18	5"	163	1150			

* PN10 RATED

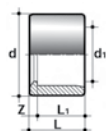
PVC-U PRESSURE FITTINGS PLAIN

CAP CA73



d		L	H	E	Wt (g)					
1/2"	CA73-12-UPVC	16	27	28	10					
3/4"	CA73-34-UPVC	19	31	33	16					
1"	CA73-1-UPVC	22	36	41	26					
1 1/4"	CA73-114-UPVC	26	43	50	40					
1 1/2"	CA73-112-UPVC	31	49	60.5	73					
2"	CA73-2-UPVC	38	57	75	128					
2 1/2"	CA73-212-UPVC	44	67	89	178					
3"	CA73-3-UPVC	51	80	106	310					
4"	CA73-4-UPVC	61	95	129	520					
5"	CA73-5-UPVC	76	114	161	920					
6"	CA73-6-UPVC	86	126	181	1317					
8"	CA73-8-UPVC	119	145	258	3478					

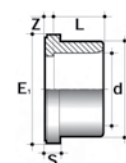
REDUCING BUSH RB93



d x d ₁		L	L ₁	Z	Wt (g)					
3/4" x 1/2"	RB93-3412-UPVC	19	16	3	4					
1" x 1/2"	RB93-134-UPVC	22	16	6	12					
1" x 3/4"	RB93-11434-UPVC	22	19	3	8					
1 1/4" x 3/4"	RB93-1141-UPVC	26	19	7	22					
1 1/4" x 1"	RB93-112114-UPVC	26	22	4	15					
1 1/2" x 1 1/4"	RB93-21-UPVC	31	26	5	17					
2" x 1 1/2"	RB93-2114-UPVC	38	31	7	41					
2 1/2" x 2"	RB93-2112-UPVC	44	38	6	72					
3" x 2 1/2"	RB93-2122-UPVC	51	44	7	116					
4" x 3"	RB93-3212-UPVC	61	51	10	246					

RB93-43-UPVC

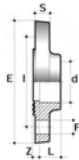
STUB FLANGE ST23



d		L	Z	S	E	E ₁	Wt (g)			
1/2"	ST23-12-UPVC	16	3	6	27	34	10			
3/4"	ST23-34-UPVC	19	3	7	33	41	14			
1"	ST23-1-UPVC	22	3	7	41	50	23			
1 1/4"	ST23-114-UPVC	26	3	8	50	61	48			
1 1/2"	ST23-112-UPVC	31	3	8	61	73	68			
2"	ST23-2-UPVC	38	3	9	76	90	128			
2 1/2"	ST23-212-UPVC	44	3	10	90	106	160			
3"	ST23-3-UPVC	51	5	11	108	125	272			
4"	ST23-4-UPVC	61	5	12	131	150	361			
5"	ST23-5-UPVC	77	7	13	163	187	750			
6"	ST23-6-UPVC	88	7	14	193	217	1155			
8"	ST23-8-UPVC	119	7	19	248	274	2092			

PVC-U PRESSURE FITTINGS PLAIN

FULL FACE FLANGE FF30 - BS10 TABLES D & E



d		L	Z	I	S	E	HOLES	Bolt Dia	Wt (g)	
1/2"	FF30-12-UPVC	16	4.5	67	11	95	4	M12	78	
3/4"	FF30-34-UPVC	19	4.5	73	12	105	4	M12	105	
1"	FF30-1-UPVC	22	4.5	83	14	115	4	M12	143	
1 1/4"	FF30-114-UPVC	26	4.5	88	15	142	4	M12	220	
1 1/2"	FF30-112-UPVC	31	4.5	98	16	152	4	M12	280	
2"	FF30-2-UPVC	38	4.5	115	18	165	4	M16	380	
2 1/2"	FF30-212-UPVC	44	6	127	19	185	4	M16	505	
3"	FF30-3-UPVC	51	7	146	20	200	4	M16	685	
4"	FF30-4-UPVC	61	8	178	22	220	8	M16	940	

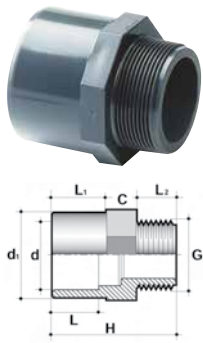
BLANK FLANGE BF00 - BS4504 NP10/16



SIZE		E	I	F	HOLES	Bolt Dia	Wt (g)			
1/2"	BF00-12-UPVC	95	65	14	4	M12	75			
3/4"	BF00-34-UPVC	105	75	14	4	M12	100			
1"	BF00-1-UPVC	115	85	14	4	M12	137			
1 1/4"	BF00-114-UPVC	142	100	18	4	M16	225			
1 1/2"	BF00-112-UPVC	152	110	18	4	M16	280			
2"	BF00-2-UPVC	165	125	18	4	M16	355			
2 1/2"	BF00-3-UPVC	185	145	18	4	M16	488			
3"	BF00-4-UPVC	200	160	18	8	M16	640			
4"	BF00-5-UPVC	220	180	18	8	M16	825			
6"	BF00-6-UPVC	283	240	22	8	M20	1589			

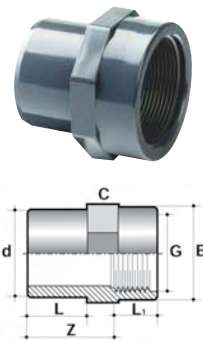
PVC-U PRESSURE FITTINGS PLAIN/THREADED (BSP)

ADAPTOR AD32 - FEMALE PLAIN/MALE PLAIN/MALE THREADED



d x d ₁ x G	d ₁	L	L ₁	L ₂	H	C	Wt (g)			
1/2" x 3/4" x 1/2"	3/4"	16	19	15	46	27	15			
1/2" x 3/4" x 3/4"	3/4"	16	19	16.3	47	30	16			
3/4" x 1" x 3/4"	1"	19	22	16.3	50	36	27			
3/4" x 1" x 1"	1"	19	22	19.1	53	36	29			
1" x 1 1/4" x 1"	1 1/4"	22	26	19.1	57	42	43			
1" x 1 1/4" x 1 1/4"	1 1/4"	22	26	21.4	60	46	52			
1 1/4" x 1 1/2" x 1 1/4"	1 1/2"	26	31	21.4	66.5	55	61			
1 1/4" x 1 1/2" x 1 1/2"	1 1/2"	26	31	21.4	66.5	55	64			
1 1/2" x 2" x 1 1/2"	2"	31	38	21.4	74	65	110			
1 1/2" x 2" x 2"	2"	31	38	25.7	78	65	124			
2" x 2 1/2" x 2"	2 1/2"	38	44	25.7	84	75	152			
2" x 2 1/2" x 2 1/2"	2 1/2"	38	44	30.2	91	80	180			
2 1/2" x 3" x 2 1/2"	3"	44	51	30.2	99	95	260			
2 1/2" x 3" x 3"	3"	44	51	33.3	102	95	275			
3" x 4" x 3"	4"	53	61	33.3	113	119	578			
3" x 4" x 4"	4"	51	61	39.3	118	115	584			

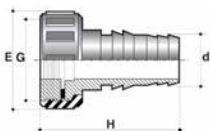
ADAPTOR AD42 - MALE PLAIN/FEMALE THREADED



d x G	L	L ₁	E	Z	C	Wt (g)				
1/2" x 1/2"	16	15	28	24	30	23				
1/2" x 3/4"	16	16.3	34	24	36	28				
3/4" x 1/2"	19	15	28	27	30	23				
3/4" x 3/4"	19	16.3	34	27	36	28				
3/4" x 1"	19	19.1	42	27	46	43				
1" x 3/4"	22	16.3	34	30	36	36				
1" x 1"	22	19.1	42	30	46	46				
1 1/4" x 1"	26	19.1	42	36	46	55				
1 1/4" x 1 1/4"	26	21.4	51	36	55	70				
1 1/2" x 1 1/4"	31	21.4	51	41	55	75				
1 1/2" x 1 1/2"	31	21.4	58	41	60	75				
1 1/2" x 2"	31	25.7	75	41	75	120				
2" x 1 1/2"	38	21.4	60	49	65	130				
2" x 2"	38	25.7	75	48	75	130				
2 1/2" x 2"	44	25.7	75	53	75	150				
2 1/2" x 2 1/2"	44	30.2	89	58	90	225				
2 1/2" x 3"	44	33.3	103	58	105	310				
3" x 2 1/2"	51	30.2	89	65	95	300				
3" x 3"	51	33.3	103	66	105	330				
3" x 4"	51	39.3	130	65	130	490				
4" x 3"	61	33.3	103	76	130	460				
4" x 4"	61	39.3	130	76	130	510				

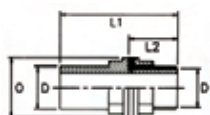
PVC-U PRESSURE FITTINGS PLAIN/THREADED (BSP)

HOSE ADAPTOR HN64 - FEMALE BSP X MM HOSE TAIL



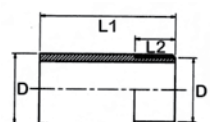
G x d		H	E	Wt (g)						
3/4" x 16	HN64-3416-UPVC	54	34	23						
1" x 20	HN64-120-UPVC	59	42	32						
1 1/4" x 25	HN64-11425-UPVC	63	52	49						
1 1/2" x 30	HN64-11230-UPVC	68	59	68						
2" x 40	HN64-240-UPVC	77	72	110						
2 1/4" x 50	HN64-21450-UPVC	80	79	145						
2 3/4" x 60	HN64-23460-UPVC	84	96	220						

TANK CONNECTOR TC93



D		L1	L2	O	Wt (g)					
1/2"•	TC93-12-UPVC	77	42	38	41					
3/4"•	TC93-34-UPVC	77	42	42	52					
1"•	TC93-1-UPVC	103	55	55	108					
1 1/4"•	TC93-114-UPVC	121	70	65	153					
1 1/2"•	TC93-112-UPVC	128	73	72	216					
2"•	TC93-2-UPVC	154	82	93	370					
2 1/2"•	TC93-212-UPVC	164	94	106	471					
3"•	TC93-3-UPVC	202	110	125	768					
4"•	TC93-4-UPVC	230	140	154	1421					

NIPPLE BN12*

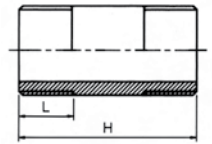


D		L2	L1	Wt (g)						
3/8"•	BN12-38-UPVC	13	42	8						
1/2"•	BN12-12-UPVC	17	50	14						
3/4"•	BN12-34-UPVC	16	56	25						
1"•	BN12-1-UPVC	20	63	38						
1 1/4"•	BN12-114-UPVC	24	75	52						
1 1/2"•	BN12-112-UPVC	30	88	80						
2"•	BN12-2-UPVC	32	88	115						
2 1/2"•	BN12-212-UPVC	35	106	197						
3"•	BN12-3-UPVC	39	128	300						
4"•	BN12-4-UPVC	43	153	560						

* MACHINED FROM PIPE

PVC-U PRESSURE FITTINGS THREADED (BSP)

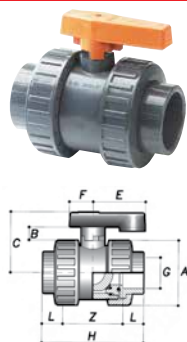
NIPPLE BN11*



SIZE		L	H	Wt (g)						
1/4"•	BN11-14-UPVC									
3/8"•	BN11-38-UPVC	12	43	11						
1/2"•	BN11-12-UPVC	13	50	13						
3/4"•	BN11-34-UPVC	14	56	20						
1"•	BN11-1-UPVC	17	63	30						
1 1/4"•	BN11-114-UPVC	19	75	51						
1 1/2"•	BN11-112-UPVC	19	88	83						
2"•	BN11-2-UPVC	23	88	119						
2 1/2"•	BN11-212-UPVC	30	106	169						
3"•	BN11-3-UPVC	30	128	243						
4"•	BN11-4-UPVC	36	153	485						

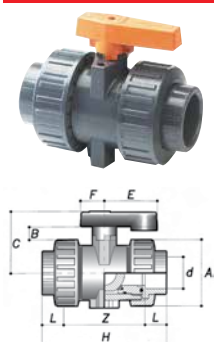
* MACHINED FROM PIPE

STANDARD BALL VALVE BVD13 - DOUBLE UNION - PTFE SEAT - EPDM SEALS - PLAIN ENDS



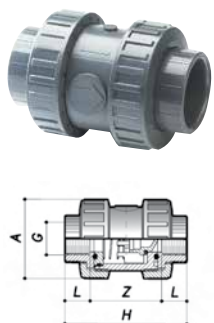
G		L	Z	H	A	B	C	E	F	PN	Wt (g)
1/2"	BVD13-12-PVC	16	40	72	50	10	48	39	19	15	130
3/4"	BVD13-34-PVC	19	48	86	60	11	54	47	22	15	200
1"	BVD13-1-PVC	22	54	98	68	13	62	55	25	15	295
1 1/4"	BVD13-114-PVC	26	62	114	80	18	75	60	30	15	440
1 1/2"	BVD13-112-PVC	31	73	135	96	20	87	68	35	15	720
2"	BVD13-2-PVC	38	85	161	116	20	101	80	40	15	1190
2 1/2"	BVD13-212-PVC	44	115	203	145	25	123	90	45	10	2210
3"	BVD13-3-PVC	51	129	231	166	28	138	100	50	10	3520
4"	BVD13-4-PVC	61	149	271	210	28	160	120	60	10	5790

INDUSTRIAL BALL VALVE BVI13 - DOUBLE UNION - PTFE SEAT - EPDM SEALS - PLAIN ENDS



d		L	Z	H	A	B	C	E	F	PN	Wt (g)
3/8"	BVI13-38-PVC	14	62	90	50	10	48	39	19	15	180
1/2"	BVI13-12-PVC	16	62	94	50	10	48	39	19	15	170
3/4"	BVI13-34-PVC	19	74	112	60	11	54	47	22	15	265
1"	BVI13-1-PVC	22	77	121	68	13	62	55	25	15	370
1 1/4"	BVI13-114-PVC	26	87	139	80	18	75	60	30	15	545
1 1/2"	BVI13-112-PVC	31	93	155	96	20	87	68	35	15	885
2"	BVI13-2-PVC	38	113	189	116	20	101	80	40	15	1440
2 1/2"	BVI13-212-PVC	44	116	204	145	25	123	90	45	10	2300
3"	BVI13-3-PVC	51	130	232	166	28	138	100	50	10	3655
4"	BVI13-4-PVC	61	150	272	210	28	160	120	60	10	6000

STANDARD SPRING CHECK NON RETURN VALVE CVD13 - DOUBLE UNION - STAINLESS STEEL SPRING - EPDM SEALS - PLAIN ENDS



G		L	Z	H	A	Class	Wt (g)			
1/2"	CVD13-12-PVC	16	48	80	50	E	110			
3/4"	CVD13-34-PVC	19	53	91	60	E	168			
1"	CVD13-1-PVC	22	58	102	68	E	246			
1 1/4"	CVD13-114-PVC	26	68	120	80	E	360			
1 1/2"	CVD13-112-PVC	31	78	140	96	E	595			
2"	CVD13-2-PVC	38	93	169	116	E	970			
2 1/2"	CVD13-212-PVC	44	126	214	145	C	1740			
3"	CVD13-3-PVC	51	139	269	166	C	2810			
4"	CVD13-4-PVC	61	159	290	210	C	4690			

DETAILS FOR CHECK VALVE WITH PTFE COATED STAINLESS STEEL SPRING ARE AVAILABLE ON REQUEST