



VKD DualBlock® 2-way Ball Valve

The VKD DualBlock® ball valve is a fully unionised valve that stands up to the most severe industrial applications.

- Size range from $\frac{3}{8}$ " / d16mm up to 2" / d53mm
- Pressure rating: Maximum working pressure: 16 bar at 20°C (PP = 10Bar at 20°C)
- Patented DualBlock® system: The locking device ensures the union nuts are retained in position, even under the most arduous conditions: ie. vibration or thermal expansion
- Easy removal of the valve body from the pipe system, allowing replacement of the valve seals and seats without any additional equipment
- The pipeline downstream of the valve can be disconnected, with the valve in the closed position, without leakage
- Patented Seat Stop® ball seat carrier, with micro adjustment of the ball seats and 'take up' of axial pipe loads, which can all be done without the need to drain the system
- VKD 'style' ergonomically designed handle with removable ball seat adjusting tool
- Possibility to fit an electric or pneumatic actuator with a GR-PP Mounting kit with standard drillings (ISO 5211 F03, F04, F05, F07)
- Jointing by solvent welding, threaded or flanged connections, or socket fusion
- For more information, please visit our website www.durapipe.co.uk

Legend

d	Nominal outside diameter
DN	Nominal internal diameter in mm
R	Nominal size or the thread size in inches
PN	Nominal pressure in bar (max. working pressure at 20°C - water)
gms	Weight in grams
PVC-U	Polyvinyl chloride unplasticised
ABS	Acrylonitrile Butadiene Styrene
PP	Polypropylene
PVC-C	Polyvinyl chloride chlorinated
HIPVC	High impact PVC
PE	Polyethylene
PTFE	Polytetrafluoroethylene
EPDM	Ethylene Propylene Diene Monomer (M-class) rubber
FPM	Fluorocarbon rubber
s	Wall thickness (mm)
SDR	Standard dimension ratio = d/s





Dimensions and Standards

Imperial

The Imperial System is manufactured in accordance with the relevant British Standards: BS 5392 fittings.

Metric

The Metric System is manufactured generally in accordance with the relevant International Standards: ISO 15493, KIWA 49 and 549, DIN 8062 and 8063.

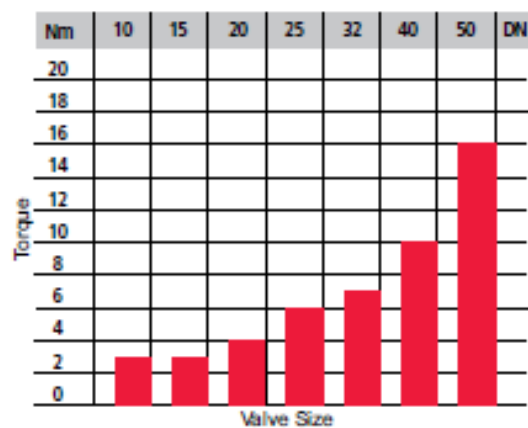
BSP Thread

Threaded fittings conform to the requirements of BS 21/DIN 2999/ISO7. Socket dimensions of metric fittings for solvent welding comply with ISO/DIS 727-1.

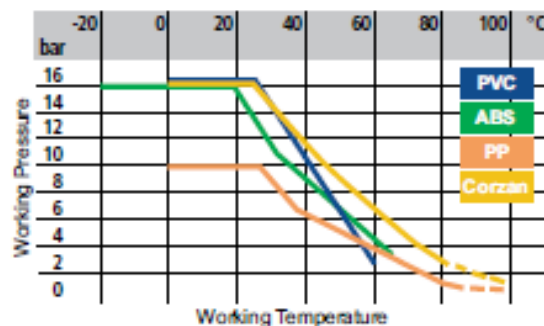
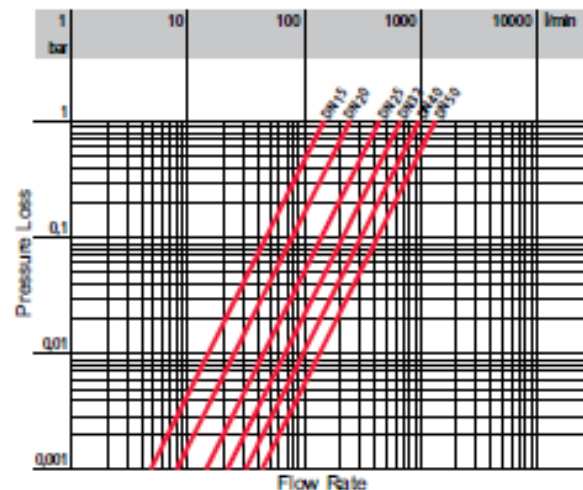
Interchangeability

Components in the imperial and metric ranges are not interchangeable.

Technical Data



Torque at max. working pressure: 16 Bar.



Pressure/temperature rating for water and harmless fluids to which the material is RESISTANT. In other cases a reduction of the PN is required. (25 years with safety factor).

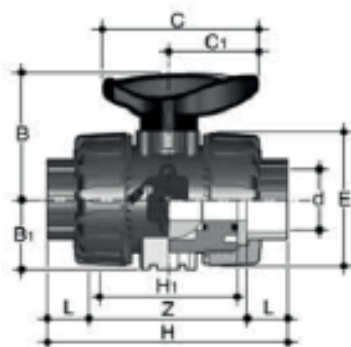
DN	10	15	20	25	32	40	50
K_{v100}	80	200	385	770	1100	1750	3400

Flow coefficient K_{v100}

K_{v100} is the number of litres per minute of water at a temperature of 20°C that will flow through a valve with a one bar pressure differential at a specified rate. The K_{v100} values shown in the table are calculated with the valve fully open.



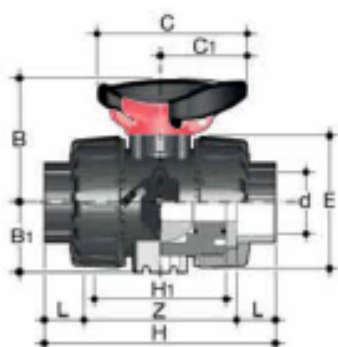
BS Series Female Ends



VKDLV **PVC-U**
VKDLA **ABS**

DualBlock® ball valve with BS series female ends for solvent welding

												PVC-U			ABS		
d	DN	PN	L	Z	H	H ₁	E	B	B ₁	C	C ₁	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	15	16	16.5	70	103	65	54	54	29	67	40	205	H0 DKE 102	H0 DKF 102	160	H0 DKA 102	H0 DKB 102
3/4	20	16	19	77	115	70	65	65	34.5	85	49	335	H0 DKE 103	H0 DKF 103	265	H0 DKA 103	H0 DKB 103
1	25	16	22.5	83	128	78	73	69.5	39	85	49	433	H0 DKE 104	H0 DKF 104	345	H0 DKA 104	H0 DKB 104
1 1/4	32	16	26	94	146	88	86	82.5	46	108	64	703	H0 DKE 105	H0 DKF 105	550	H0 DKA 105	H0 DKB 105
1 1/2	40	16	30	104	164	91	98	89	52	108	64	925	H0 DKE 106	H0 DKF 106	730	H0 DKA 106	H0 DKB 106
2	50	16	36	127	199	111	122	108	62	134	76	1577	H0 DKE 107	H0 DKF 107	1280	H0 DKA 107	H0 DKB 107



VKDLV - SH **PVC-U**
VKDLA - SH **ABS**

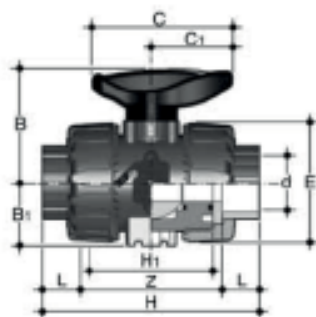
DualBlock® ball valve with BS series female ends for solvent welding - with lockable handle

												PVC-U			ABS		
d	DN	PN	L	Z	H	H ₁	E	B	B ₁	C	C ₁	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	15	16	16.5	70	103	65	54	54	29	67	40	215	H0 DLE 102	H0 DLF 102	170	H0 DLA 102	H0 DLB 102
3/4	20	16	19	77	115	70	65	65	34.5	85	49	345	H0 DLE 103	H0 DLF 103	275	H0 DLA 103	H0 DLB 103
1	25	16	22.5	83	128	78	73	69.5	39	85	49	443	H0 DLE 104	H0 DLF 104	355	H0 DLA 104	H0 DLB 104
1 1/4	32	16	26	94	146	88	86	82.5	46	108	64	713	H0 DLE 105	H0 DLF 105	560	H0 DLA 105	H0 DLB 105
1 1/2	40	16	30	104	164	91	98	89	52	108	64	935	H0 DLE 106	H0 DLF 106	740	H0 DLA 106	H0 DLB 106
2	50	16	36	127	199	111	122	108	62	134	76	1587	H0 DLE 107	H0 DLF 107	1290	H0 DLA 107	H0 DLB 107



Metric Series Female Ends

VKDIV	PVC-U
VKDIA	ABS
VKDIM	PP
VKDIC	Corzan



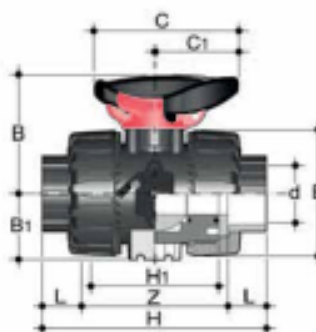
DualBlock® ball valve with Metric series female ends

d	DN	PN**	L	Z	H	H ₁	E	B	B ₁	C	C ₁	L*	Z*	H*
16	10	16	14	75	103	65	54	54	29	67	40	-	-	-
20	15	16	16	71	103	65	54	54	29	67	40	14.5	73	102
25	20	16	19	77	115	70	65	65	34.5	85	49	16	82	114
32	25	16	22	84	128	78	73	69.5	39	85	49	18	90	126
40	32	16	26	94	146	88	86	82.5	46	108	64	20.5	100	141
50	40	16	31	102	164	91	98	89	52	108	64	23.5	117	164
63	50	16	38	123	199	111	122	108	62	134	76	27.5	144	199

**For PP all sizes are PN10. L*, Z* and H* sizes relate to PP only.

PVC-U				ABS			PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
16	195	H0 DKE 305	H0 DKF 305	160	H0 DKA 305	H0 DKB 305	-	-	-	234	H0 DKJ 305	H0 DKK 305
20	195	H0 DKE 306	H0 DKF 306	160	H0 DKA 306	H0 DKB 306	145	H0 DKN 306	H0 DKP 306	223	H0 DKJ 306	H0 DKK 306
25	315	H0 DKE 307	H0 DKF 307	265	H0 DKA 307	H0 DKB 307	218	H0 DKN 307	H0 DKP 307	358	H0 DKJ 307	H0 DKK 307
32	435	H0 DKE 308	H0 DKF 308	345	H0 DKA 308	H0 DKB 308	298	H0 DKN 308	H0 DKP 308	476	H0 DKJ 308	H0 DKK 308
40	655	H0 DKE 309	H0 DKF 309	550	H0 DKA 309	H0 DKB 309	480	H0 DKN 309	H0 DKP 309	753	H0 DKJ 309	H0 DKK 309
50	880	H0 DKE 310	H0 DKF 310	730	H0 DKA 310	H0 DKB 310	682	H0 DKN 310	H0 DKP 310	1007	H0 DKJ 310	H0 DKK 310
63	1560	H0 DKE 311	H0 DKF 311	1280	H0 DKA 311	H0 DKB 311	1166	H0 DKN 311	H0 DKP 311	1717	H0 DKJ 311	H0 DKK 311

VKDIV - SH	PVC-U
VKDIA - SH	ABS
VKDIM - SH	PP
VKDIC - SH	Corzan



DualBlock® ball valve with Metric series female ends for solvent welding - with lockable handle

d	DN	PN**	L	Z	H	H ₁	E	B	B ₁	C	C ₁	L*	Z*	H*
16	10	16	14	75	103	65	54	54	29	67	40	-	-	-
20	15	16	16	71	103	65	54	54	29	67	40	14.5	73	102
25	20	16	19	77	115	70	65	65	34.5	85	49	16	82	114
32	25	16	22	84	128	78	73	69.5	39	85	49	18	90	126
40	32	16	26	94	146	88	86	82.5	46	108	64	20.5	100	141
50	40	16	31	102	164	91	98	89	52	108	64	23.5	117	164
63	50	16	38	123	199	111	122	108	62	134	76	27.5	144	199

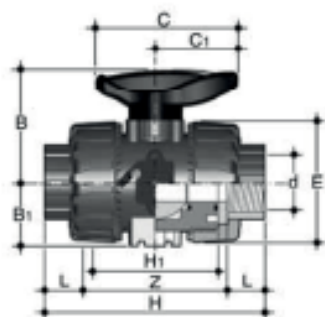
**For PP all sizes are PN10. L*, Z* and H* sizes relate to PP only.

PVC-U				ABS			PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
16	205	H0 DLE 305	H0 DLF 305	250	H0 DLA 305	H0 DLB 305	-	-	-	244	H0 DLJ 305	H0 DLK 305
20	205	H0 DLE 306	H0 DLF 306	170	H0 DLA 306	H0 DLB 306	155	H0 DLN 306	H0 DLP 306	233	H0 DLJ 306	H0 DLK 306
25	325	H0 DLE 307	H0 DLF 307	275	H0 DLA 307	H0 DLB 307	228	H0 DLN 307	H0 DLP 307	368	H0 DLJ 307	H0 DLK 307
32	445	H0 DLE 308	H0 DLF 308	355	H0 DLA 308	H0 DLB 308	308	H0 DLN 308	H0 DLP 308	486	H0 DLJ 308	H0 DLK 308
40	665	H0 DLE 309	H0 DLF 309	560	H0 DLA 309	H0 DLB 309	490	H0 DLN 309	H0 DLP 309	763	H0 DLJ 309	H0 DLK 309
50	890	H0 DLE 310	H0 DLF 310	740	H0 DLA 310	H0 DLB 310	692	H0 DLN 310	H0 DLP 310	1017	H0 DLJ 310	H0 DLK 310
63	1570	H0 DLE 311	H0 DLF 311	1290	H0 DLA 311	H0 DLB 311	1176	H0 DLN 311	H0 DLP 311	1727	H0 DLJ 311	H0 DLK 311



BSP Threaded Socket Ends

VKDFV **PVC-U**
VKDFA **ABS**
VKDFM **PP**



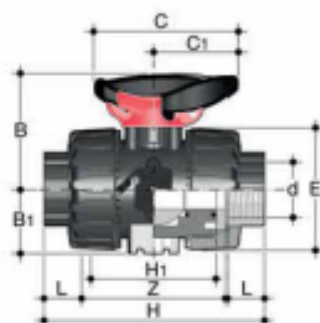
DualBlock® ball valve with BSP parallel female threaded ends

d	DN	PN**	L	Z	H	H ₁	E	B	B ₁	C	C ₁	Z***
3/8	10	16	11.4	80.2	103	65	54	54	29	67	40	80.2
1/2	15	16	15	80	110	65	54	54	29	67	40	73
3/4	20	16	16.3	83.4	116	70	65	65	34.5	85	49	82.4
1	25	16	19.1	95.8	134	78	73	69.5	39	85	49	89.8
1 1/4	32	16	21.4	110.2	153	88	86	82.5	46	108	64	103.2
1 1/2	40	16	21.4	113.2	156	91	98	89	52	108	64	121.2
2	50	16	25.7	134.6	186	111	122	108	62	134	76	147.6

For PP all sizes are PN10. Z* For ABS sizes only.

PVC-U				ABS			PP		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
3/8	200	-	-	200	H0 DKA B01	H0 DKB B01	-	-	-
1/2	210	H0 DKE B02	H0 DKF B02	165	H0 DKA B02	H0 DKB B02	145	H0 DKN B02	H0 DKP B02
3/4	335	H0 DKE B03	H0 DKF B03	265	H0 DKA B03	H0 DKB B03	220	H0 DKN B03	H0 DKP B03
1	448	H0 DKE B04	H0 DKF B04	350	H0 DKA B04	H0 DKB B04	298	H0 DKN B04	H0 DKP B04
1 1/4	678	H0 DKE B05	H0 DKF B05	545	H0 DKA B05	H0 DKB B05	488	H0 DKN B05	H0 DKP B05
1 1/2	955	H0 DKE B06	H0 DKF B06	740	H0 DKA B06	H0 DKB B06	682	H0 DKN B06	H0 DKP B06
2	1667	H0 DKE B07	H0 DKF B07	1295	H0 DKA B07	H0 DKB B07	1181	H0 DKN B07	H0 DKP B07

VKDFV - SH **PVC-U**
VKDFA - SH **ABS**
VKDFM - SH **PP**



DualBlock® ball valve with BSP parallel female threaded ends - with lockable handle

d	DN	PN**	L	Z	H	H ₁	E	B	B ₁	C	C ₁	Z***
3/8	10	16	11.4	80.2	103	65	54	54	29	67	40	80.2
1/2	15	16	15	80	110	65	54	54	29	67	40	73
3/4	20	16	16.3	83.4	116	70	65	65	34.5	85	49	82.4
1	25	16	19.1	95.8	134	78	73	69.5	39	85	49	89.8
1 1/4	32	16	21.4	110.2	153	88	86	82.5	46	108	64	103.2
1 1/2	40	16	21.4	113.2	156	91	98	89	52	108	64	121.2
2	50	16	25.7	134.6	186	111	122	108	62	134	76	147.6

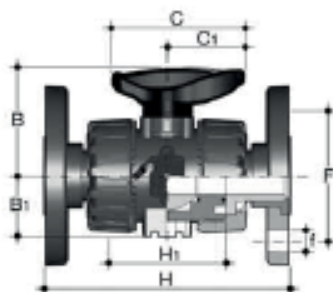
For PP all sizes are PN10. Z* For ABS sizes only.

PVC-U				ABS			PP		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
3/8	200	-	-	210	H0 DLA B01	H0 DLB B01	-	-	-
1/2	220	H0 DLE B02	H0 DLF B02	175	H0 DLA B02	H0 DLB B02	155	H0 DLN B02	H0 DLP B02
3/4	345	H0 DLE B03	H0 DLF B03	275	H0 DLA B03	H0 DLB B03	230	H0 DLN B03	H0 DLP B03
1	458	H0 DLE B04	H0 DLF B04	360	H0 DLA B04	H0 DLB B04	308	H0 DLN B04	H0 DLP B04
1 1/4	688	H0 DLE B05	H0 DLF B05	555	H0 DLA B05	H0 DLB B05	498	H0 DLN B05	H0 DLP B05
1 1/2	965	H0 DLE B06	H0 DLF B06	750	H0 DLA B06	H0 DLB B06	692	H0 DLN B06	H0 DLP B06
2	1677	H0 DLE B07	H0 DLF B07	1305	H0 DLA B07	H0 DLB B07	1191	H0 DLN B07	H0 DLP B07



Flanged Ends to BS EN1092-1 PN10/16

VKDOV **PVC-U**
VKDOA **ABS**
VKDOM **PP**
VKDOC **Corzan**



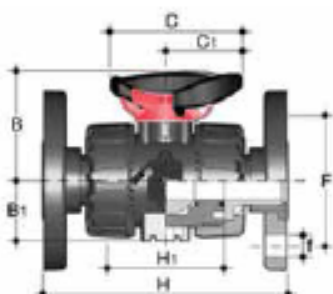
DualBlock® ball valve with flanged ends, to BS EN1092-1 PN10/16

d	DN	PN*	H	H ₁	B	B ₁	C	C ₁	F	f	U**
1/2	15	16	130	65	54	29	67	40	65	14	4
3/4	20	16	150	70	65	34.5	85	49	75	14	4
1	25	16	160	78	69.5	39	85	49	85	14	4
1 1/4	32	16	180	88	82.5	46	108	64	100	18	4
1 1/2	40	16	200	91	89	52	108	64	110	18	4
2	50	16	230	111	108	62	134	76	125	18	4

*For PP all sizes are PN10. **No. of Holes.

PVC-U				ABS			PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	375	H0 DKE F02	H0 DKF F02	340	H0 DKA F02	H0 DKB F02	387	H0 DKN F02	H0 DKP F02	481	H0 DKJ F02	H0 DKK F02
3/4	590	H0 DKE F03	H0 DKF F03	545	H0 DKA F03	H0 DKB F03	504	H0 DKN F03	H0 DKP F03	663	H0 DKJ F03	H0 DKK F03
1	713	H0 DKE F04	H0 DKF F04	685	H0 DKA F04	H0 DKB F04	697	H0 DKN F04	H0 DKP F04	896	H0 DKJ F04	H0 DKK F04
1 1/4	1108	H0 DKE F05	H0 DKF F05	1050	H0 DKA F05	H0 DKB F05	1075	H0 DKN F05	H0 DKP F05	1379	H0 DKJ F05	H0 DKK F05
1 1/2	1485	H0 DKE F06	H0 DKF F06	1380	H0 DKA F06	H0 DKB F06	1346	H0 DKN F06	H0 DKP F06	1761	H0 DKJ F06	H0 DKK F06
2	2347	H0 DKE F07	H0 DKF F07	2195	H0 DKA F07	H0 DKB F07	2060	H0 DKN F07	H0 DKP F07	2741	H0 DKJ F07	H0 DKK F07

VKDOV - SH **PVC-U**
VKDOA - SH **ABS**
VKDOM - SH **PP**
VKDOC - SH **Corzan**



DualBlock® ball valve with flanged ends, to BS EN1092-1 PN10/16 - with lockable handle

d	DN	PN*	H	H ₁	B	B ₁	C	C ₁	F	f	U**
1/2	15	16	130	65	54	29	67	40	65	14	4
3/4	20	16	150	70	65	34.5	85	49	75	14	4
1	25	16	160	78	69.5	39	85	49	85	14	4
1 1/4	32	16	180	88	82.5	46	108	64	100	18	4
1 1/2	40	16	200	91	89	52	108	64	110	18	4
2	50	16	230	111	108	62	134	76	125	18	4

*For PP all sizes are PN10. **No. of Holes.

PVC-U				ABS			PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	385	H0 DLE F02	H0 DLF F02	350	H0 DLA F02	H0 DLB F02	397	H0 DLN F02	H0 DLP F02	491	H0 DLJ F02	H0 DLK F02
3/4	600	H0 DLE F03	H0 DLF F03	555	H0 DLA F03	H0 DLB F03	514	H0 DLN F03	H0 DLP F03	673	H0 DLJ F03	H0 DLK F03
1	723	H0 DLE F04	H0 DLF F04	695	H0 DLA F04	H0 DLB F04	707	H0 DLN F04	H0 DLP F04	906	H0 DLJ F04	H0 DLK F04
1 1/4	1118	H0 DLE F05	H0 DLF F05	1150	H0 DLA F05	H0 DLB F05	1085	H0 DLN F05	H0 DLP F05	1389	H0 DLJ F05	H0 DLK F05
1 1/2	1495	H0 DLE F06	H0 DLF F06	1390	H0 DLA F06	H0 DLB F06	1356	H0 DLN F06	H0 DLP F06	1771	H0 DLJ F06	H0 DLK F06
2	2357	H0 DLE F07	H0 DLF F07	2205	H0 DLA F07	H0 DLB F07	2070	H0 DLN F07	H0 DLP F07	2751	H0 DLJ F07	H0 DLK F07

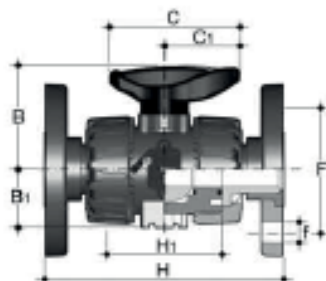


Flanged Ends to ANSI 150

VKDOAV **PVC-U**

VKDOAM **PP**

VKDOAC **Corzan**



DualBlock® ball valve with flanged ends, to ANSI 150

d	DN	PN*	H	H ₁	B	B ₁	C	C ₁	F	f	U**
1/2	15	16	143	65	54	29	67	40	60.5	16	4
3/4	20	16	172	70	65	34.5	85	49	70	16	4
1	25	16	187	78	69.5	39	85	49	79.5	16	4
1 1/4	32	16	190	88	82.5	46	108	64	89	16	4
1 1/2	40	16	212	91	89	52	108	64	98.5	16	4
2	50	16	234	111	108	62	134	76	121	19	4

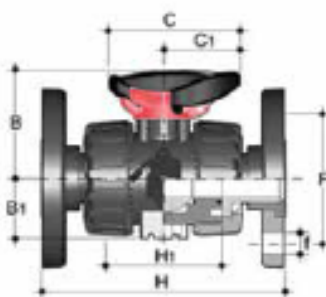
*For PP all sizes are PN10. **No. of Holes.

PVC-U				PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	375	H0 DKE X02	H0 DKF X02	387	H0 DKN X02	H0 DKP X02	481	H0 DKJ X02	H0 DKK X02
3/4	590	H0 DKE X03	H0 DKF X03	504	H0 DKN X03	H0 DKP X03	663	H0 DKJ X03	H0 DKK X03
1	713	H0 DKE X04	H0 DKF X04	697	H0 DKN X04	H0 DKP X04	896	H0 DKJ X04	H0 DKK X04
1 1/4	1108	H0 DKE X05	H0 DKF X05	1075	H0 DKN X05	H0 DKP X05	1379	H0 DKJ X05	H0 DKK X05
1 1/2	1485	H0 DKE X06	H0 DKF X06	1346	H0 DKN X06	H0 DKP X06	1761	H0 DKJ X06	H0 DKK X06
2	2347	H0 DKE X07	H0 DKF X07	2060	H0 DKN X07	H0 DKP X07	2741	H0 DKJ X07	H0 DKK X07

VKDOAV - SH **PVC-U**

VKDOAM - SH **PP**

VKDOAC - SH **Corzan**



DualBlock® ball valve with flanged ends, to ANSI 150 - with lockable handle

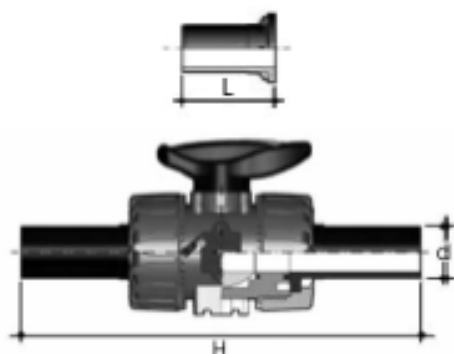
d	DN	PN*	H	H ₁	B	B ₁	C	C ₁	F	f	U**
1/2	15	16	143	65	54	29	67	40	60.5	16	4
3/4	20	16	172	70	65	34.5	85	49	70	16	4
1	25	16	187	78	69.5	39	85	49	79.5	16	4
1 1/4	32	16	190	88	82.5	46	108	64	89	16	4
1 1/2	40	16	212	91	89	52	108	64	98.5	16	4
2	50	16	234	111	108	62	134	76	121	19	4

*For PP all sizes are PN10. **No. of Holes.

PVC-U				PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
1/2	385	H0 DLE X02	H0 DLF X02	397	H0 DLN X02	H0 DLP X02	471	H0 DLJ X02	H0 DLK X02
3/4	600	H0 DLE X03	H0 DLF X03	514	H0 DLN X03	H0 DLP X03	673	H0 DLJ X03	H0 DLK X03
1	723	H0 DLE X04	H0 DLF X04	707	H0 DLN X04	H0 DLP X04	906	H0 DLJ X04	H0 DLK X04
1 1/4	1118	H0 DLE X05	H0 DLF X05	1085	H0 DLN X05	H0 DLP X05	1389	H0 DLJ X05	H0 DLK X05
1 1/2	1495	H0 DLE X06	H0 DLF X06	1356	H0 DLN X06	H0 DLP X06	1771	H0 DLJ X06	H0 DLK X06
2	2357	H0 DLE X07	H0 DLF X07	2070	H0 DLN X07	H0 DLP X07	2751	H0 DLJ X07	H0 DLK X07



Accessories

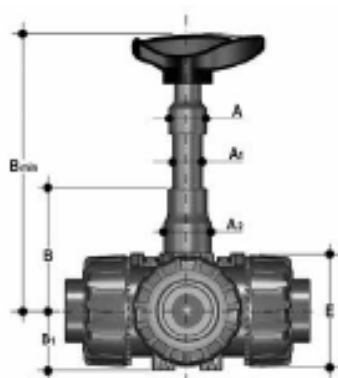


CVDE

End connector in PE100, long spigot, for electrofusion or butt welding (SDR11)

d	DN	L	H	Product Code
20	15	55	175	HZ PEE M06
25	20	70	210	HZ PEE M07
32	25	74	226	HZ PEE M08
40	32	78	243	HZ PEE M09
50	40	84	261	HZ PEE M10
63	50	91	293	HZ PEE M11

End connectors also available in PP, please speak to the Durapipe Valve Department for details

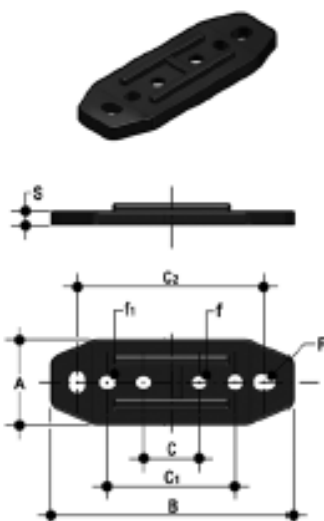


PSKI

Stem extension kit (In PVC-U, pipe not included)

d	DN	A	A ₁ *	A ₂	E	B	B ₁	B _{max}	Product Code
3/8" - 16	10	32	25	32	54	70	29	139.5	KTPSKDEF
1/2" - 20	15	32	25	32	54	70	29	139.5	KTPSKDEF
3/4" - 25	20	32	25	40	65	89	34.5	164.5	KTPSKDGG
1" - 32	25	32	25	40	73	93.5	39	169	KTPSKDHH
1 1/4" - 40	32	40	32	50	86	110	46	200	KTPSKDII
1 1/2" - 50	40	40	32	50	98	116	52	206	KTPSKDIJ
2" - 63	50	40	32	50	122	122	62	225	KTPSKDLL

*A1 is the size of standard pipe needed (not included in kit) and can be cut to suit



RMKI

Mounting plate

d	DN	A	B	C	C ₁	C ₂	F	f	f ₁	S	Product Code
3/8" - 16	10	30	86	20	46	67.5	6.5	5.3	5.35	5	PMKD01
1/2" - 20	15	30	86	20	46	67.5	6.5	5.3	5.5	5	PMKD01
3/4" - 25	20	30	86	20	46	67.5	6.5	5.3	5.5	5	PMKD01
1" - 32	25	30	86	20	46	67.5	6.5	5.3	5.5	5	PMKD01
1 1/4" - 40	32	40	122	30	72	102	6.5	6.3	6.5	6	PMKD02
1 1/2" - 50	40	40	122	30	72	102	6.5	6.3	6.5	6	PMKD02
2" - 63	50	40	122	30	72	102	6.5	6.3	6.5	6	PMKD02

SHKI

Handle Locking Kit 0° - 90° - with option to fit padloc



d	DN	Product Code
3/8" - 16	10	KTSHKDEF
1/2" - 20	15	KTSHKDEF
3/4" - 25	20	KTSHKDGH
1" - 32	25	KTSHKDGH
1 1/4" - 40	32	KTSHKDIJ
1 1/2" - 50	40	KTSHKDIJ
2" - 63	50	KTSHKDLL



Connection to the System

Before proceeding with the installation, please read and familiarise yourself with these instructions.

1. Check that the pipes either side of the valve are axially aligned, in order to avoid mechanical stress on the threaded union joints.
2. Unscrew the union nuts (13 on p21) from the valve body and slide them onto the pipe.
3. Solvent weld, socket fuse or screw the valve end connectors (12 on p21) onto the pipe ends. For correct jointing see the Durapipe material technical catalogues.
4. Position the valve between the two end connectors (Fig. 2) and screw the union nuts clockwise by hand until a resistance is felt; do not use keys or other tools which may damage the nut surface.
5. Check the DualBlock® device (16 on p21) is fitted to the valve body (Fig. 1). DualBlock® is the patented system that allows the union nuts to be locked in position. The locking device ensures the nuts are retained in position, even under the most arduous conditions: i.e. vibration or thermal expansion.

The nuts are now locked in position. To unlock them push in the lever on the DualBlock® device (away from the teeth of the union nut) and unscrew the nut anti-clockwise.

If the VKD valve is fitted with the locking handle (supplied separately), to operate the valve it is required to lift the locking device (15 on p21) before being able to turn the handle (Fig. 3). The fitting of a padlock is possible so the valve can be locked in the open or closed position (Fig. 4).

Seat Adjustment

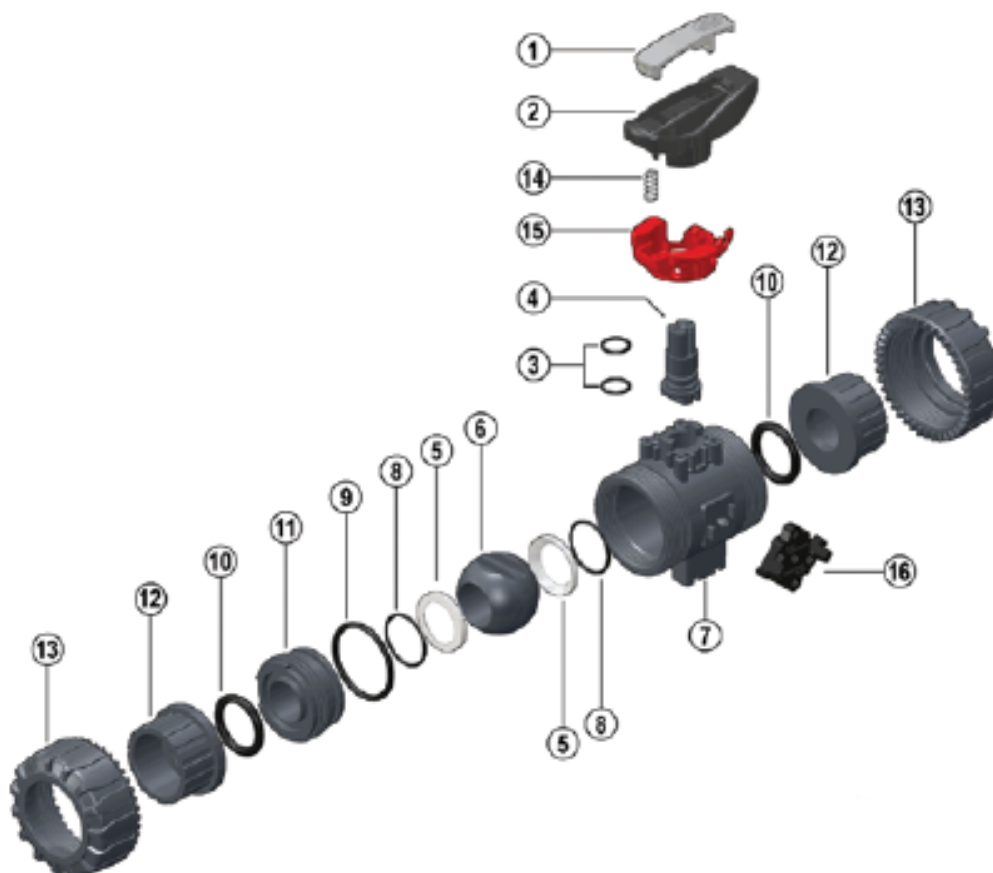
The seat adjustment is undertaken using the removable insert tool in the handle (Fig. 5).

The removable insert tool can be used to tighten the ball carrier (Fig. 6) to achieve the correct sealing. Ideally use the Easytorque kit to ensure the seat is tightened to the recommended torque.

Micro-adjustment of the ball seats can be carried out whilst the valve is installed in-line by tightening the union nut with the valve in the fully closed position. With the patented Seat Stop® system it is possible to compensate wear on the PTFE seats due to excessive valve operations.



Warning: It is essential to avoid rapid closing of valves, to avoid the possibility of water hammer which may cause damage to the pipe system. When using volatile liquids such as Hydrogen Peroxide, they may vaporise causing a pressure increase in the void between the ball and the body. Please contact Durapipe Technical Support for further advice.



Position	Components	Material
1	Handle insert tool	PVC-U
2	Handle	HPVC
3*	Stem O-ring	EPDM/FPM
4	Stem	Valve Material
5*	Ball seat	PTFE
6	Ball	Valve Material
7	Body	Valve Material
8*	Ball seat O-ring	EPDM/FPM
9*	Carrier O-ring	EPDM/FPM
10*	Socket seal O-ring	EPDM/FPM
11	Ball seat carrier	Valve Material
12*	End connector	Valve Material
13*	Union nut	Valve Material
14**	Spring (SHKD)	Stainless steel
15**	Safety handle block (SHKD)	PP-GR
16*	DualBlock®	POM

*Spare Parts **Accessories



VKD DualBlock® 2-way Ball Valve

The VKD DualBlock® ball valve is a fully unionised valve that stands up to the most severe industrial applications.

- Size range from 2 1/2" / d75mm up to 4" / d110mm
- Pressure rating: Maximum working pressure: 16 bar at 20°C (PP = 10Bar at 20°C)
- Patented DualBlock® system: The locking device ensures the union nuts are retained in position, even under the most arduous conditions: ie. vibration or thermal expansion
- Lockable handle as standard feature
- Easy removal of the valve body from the pipe system, allowing replacement of the valve seats and seats without any additional equipment
- The pipeline downstream of the valve can be disconnected, with the valve in the closed position, without leakage
- Patented Seat Stop® design ball seat carrier, with micro adjustment of the ball seats and 'take up' of axial pipe loads
- VKD 'style' ergonomically designed handle with removable ball seat adjusting tool
- Possibility to fit an electric or pneumatic actuator with a GR-PP mounting plate with standard drillings (F07)
- For more information, please visit our website www.durapipe.co.uk

Legend

d	Nominal outside diameter
DN	Nominal internal diameter in mm
R	Nominal size of the thread in inches
PN	Nominal pressure in bar (max. working pressure at 20°C - water)
gms	Weight in grams
PVC-U	Polyvinyl chloride unplasticised
ABS	Acrylonitrile Butadiene Styrene
PP	Polypropylene
PVC-C	Polyvinyl chloride chlorinated
HIPVC	High impact PVC
PE	Polyethylene
PTFE	Polytetrafluoroethylene
EPDM	Ethylene Propylene Diene Monomer (M-class) rubber
FPM	Fluorocarbon rubber
s	Wall thickness (mm)
SDR	Standard dimension ratio = d/s





Dimensions and Standards

Imperial

The Imperial System is manufactured in accordance with the relevant British Standards: BS 5392 fittings.

Metric

The Metric System is manufactured generally in accordance with the relevant International Standards: ISO 15493, KIWA 49 and 549, DIN 8062 and 8063.

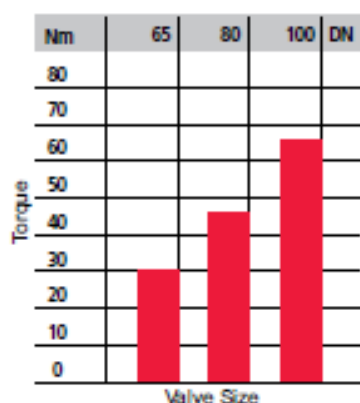
BSP Thread

Threaded fittings conform to the requirements of BS 21/DIN 2999/ISO7. Socket dimensions of metric fittings for solvent welding comply with ISO/DIS 727-1.

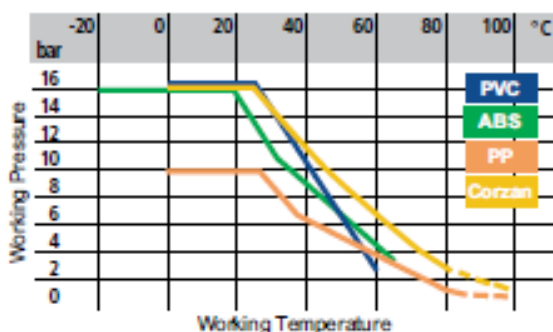
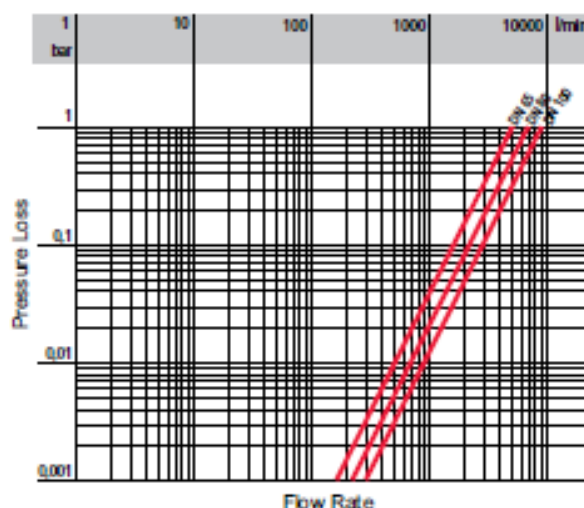
Interchangeability

Components in the imperial and metric ranges are not interchangeable.

Technical Data



Torque at max working pressure. 16 Bar.



Pressure/temperature rating for water and harmless fluids to which the material is RESISTANT. In other cases a reduction of the PN is required. (25 years with safety factor).

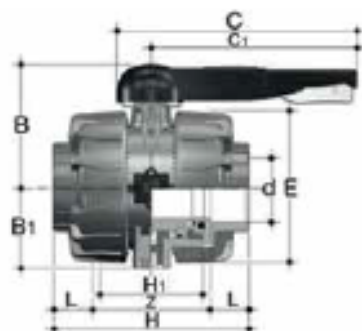
DN	65	80	100
k_{v100}	5250	7100	9500

Flow coefficient k_{v100}

k_{v100} is the number of litres per minute of water at a temperature of 20°C that will flow through a valve with a one bar pressure differential at a specified rate. The k_{v100} values shown in the table are calculated with the valve fully open.



BS Series Female Ends

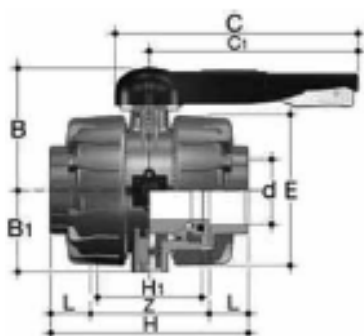


VKDLV **PVC-U**
VKDLA **ABS**

DualBlock® ball valve with BS series female ends for solvent welding

												PVC-U			ABS		
d	DN	PN	L	Z	H	H ₁	E	B	B ₁	C	C ₁	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
2 1/2	65	16	44	147	235	133	164	164	87	225	175	4380	H0 DKE 312	H0 DKF 312	3725	H0 DKA 312	H0 DKB 312
3	80	16	51	168	270	149	203	177	105	327	272	7260	H0 DKE 109	H0 DKF 109	5700	H0 DKA 109	H0 DKB 109
4	100	16	63	182	308	167	238	195	129	385	330	11300	H0 DKE 110	H0 DKF 110	8660	H0 DKA 110	H0 DKB 110

Metric Series Female Ends



VKDIV **PVC-U**
VKDIA **ABS**
VKDIM **PP**
VKDIC **Corzan**

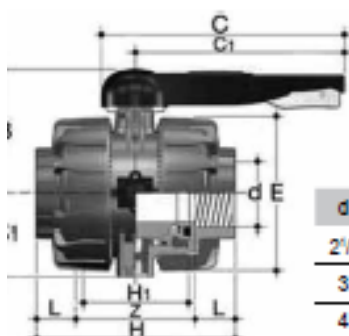
DualBlock® ball valve with metric series female ends

d	DN	PN	L	Z	H	H ₁	E	B	B ₁	C	C ₁
75	65	16	44	147	235	133	164	164	87	225	175
90	80	16	51	168	270	149	203	177	105	327	272
110	100	16	63	182	308	167	238	195	129	385	330

PVC-U				ABS			PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
75	4380	H0 DKE 312	H0 DKF 312	3725	H0 DKA 312	H0 DKB 312	3090	H0 DKN 312	H0 DKP 312	4750	H0 DKJ 312	H0 DKK 312
90	7260	H0 DKE 313	H0 DKF 313	5700	H0 DKA 313	H0 DKB 313	5080	H0 DKN 313	H0 DKP 313	7838	H0 DKJ 313	H0 DKK 313
110	11300	H0 DKE 314	H0 DKF 314	8660	H0 DKA 314	H0 DKB 314	7725	H0 DKN 314	H0 DKP 314	12137	H0 DKJ 314	H0 DKK 314



BSP Threaded Socket Ends

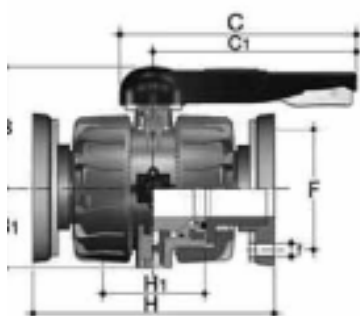


VKDFV **PVC-U**

DualBlock® ball valve with BSP parallel female threaded ends

												PVC-U		
d	DN	PN	L	Z	H	H ₁	E	B	B ₁	C	C ₁	gms	EPDM Code	FPM Code
2 1/2"	65	16	30.2	174.6	235	133	164	164	87	225	175	4395	H0 DKE B08	H0 DKF B08
3"	80	16	33.3	203.4	270	149	203	177	105	327	272	7260	H0 DKE B09	H0 DKF B09
4"	100	16	39.3	229.4	308	167	238	195	129	385	330	11100	H0 DKE B10	H0 DKF B10

Flanged Ends to BS EN1092-1 PN10/16



VKDOV **PVC-U**

VKDOM **PP**

VKDOC **Corzan**

DualBlock® ball valve with flanged ends, to BS EN1092-1 PN10/16 and ANSI 15

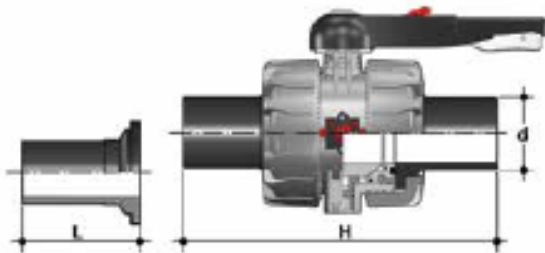
d	DN	PN	H	H ₁	B	B ₁	C	C ₁	F _{min}	F _{max}	f _{min}	f _{max}	U
2 1/2"	65	16	290	133	164	87	225	175	139.7	145	17	18	4
3"	80	16	310	149	177	105	327	272	152.4	160	17	18	8
4"	100	16	350	167	195	129	385	330	180	190.5	17	18	8

PVC-U				PP			Corzan		
d	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code	gms	EPDM Code	FPM Code
2 1/2"	6610	H0 DKN F08	H0 DKP F08	4500	H0 DKN F08	H0 DKP F08	6413	H0 DKJ F08	H0 DKK F08
3"	9330	H0 DKN F09	H0 DKP F09	6455	H0 DKN F09	H0 DKP F09	9669	H0 DKJ F09	H0 DKK F09
4"	13815	H0 DKN F10	H0 DKP F10	9090	H0 DKN F10	H0 DKP F10	14697	H0 DKJ F10	H0 DKK F10

*Flanges on these sizes are slotted, single code covers both specification



Accessories



End connector in PE100, long spigot, for electrofusion or butt welding (SDR11)

d	DN	L	H	Product Code
75	65	111	356	HZ PEE M12
90	80	118	390	HZ PEE M13
110	100	132	431	HZ PEE M14

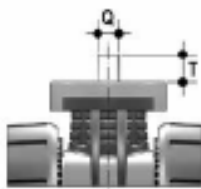
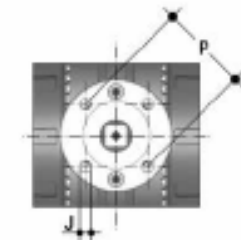
End connectors also available in PP, please speak to the Durapipe Valve Department for details

WTOC

Wrench tool for ball seat carrier adjustment



DN	Product Code
65	HZ WTOOL1
80	
100	



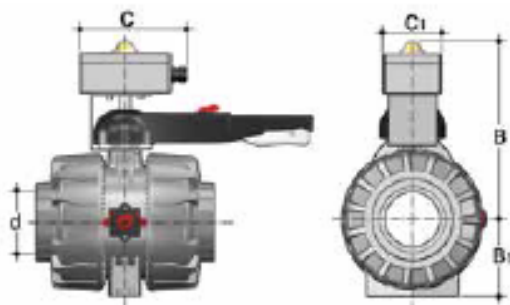
ACTUATOR MOUNTING

The valve can be supplied actuated, pneumatic or electric, by the Durapipe Valve Department. The GR-PP mounting plate (with standard ISO 5211 F07 drillings) can be supplied for self-actuation and/or retrofitting of actuators to installed valves

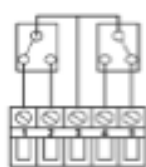
d	J	P	Q	T	Product Code
2 1/2 - 75	9	70	14	16	03 699 167
3 - 90	9	70	14	16	03 699 167
4 - 110	9	70	17	19	03 699 167

VKD - M

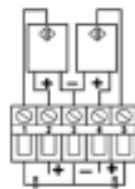
The VKD - MS is a limit switch box with either mechanical or proximity switches. The switchbox can be used to indicate back to a control panel the position of the valve fully open/fully closed (max. rotation = 90°). For further details, please contact the Durapipe Valve Department



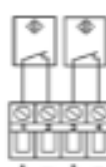
d	B	B ₁	C	C ₁
2 1/2 - 75	266	87	150	80
3 - 90	279	105	150	80
4 - 110	297	129	150	80



Electro-mechanical

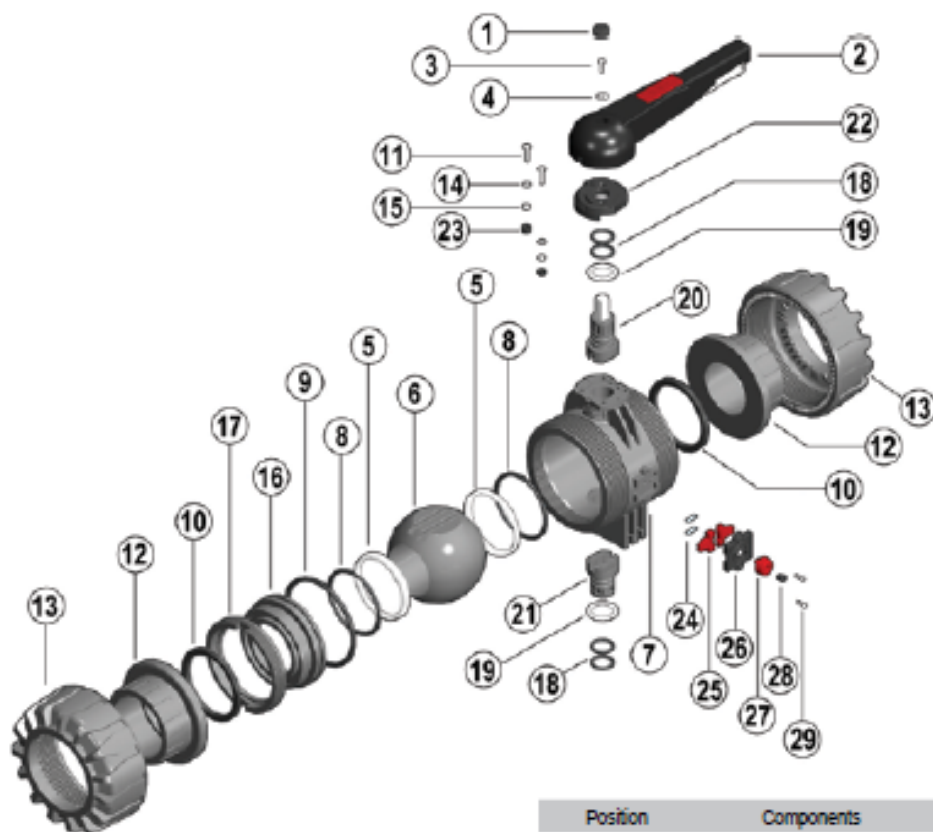


Inductive



Namur

d	DN	Product Code		
		Electro-mechanical	Inductive	Namur
2 1/2 - 75	65	FKM1M	FKM51I	FKM51N
to	to			
4 - 110	100			



Position	Components	Material
1	Protection cap	PE
2	Handle	HIPVC
3	Screw	Stainless steel
4	Washer	Stainless steel
5*	Ball seat	PTFE
6	Ball	Valve Material
7	Body	Valve Material
8*	Ball seat O-ring	EPDM/FPM
9*	Carrier O-ring	EPDM/FPM
10*	Socket seal O-ring	EPDM/FPM
11	Screw	Stainless steel
12*	End connector	Valve Material
13*	Union nut	Valve Material
14	Washer	Stainless steel
15	Nut	Stainless steel
16	Ball seat carrier	ABS
17	Carrier 'stop ring'	ABS
18*	Stem O-ring	EPDM/FPM
19*	Friction reducing bush	PTFE
20	Upper stem	Valve Material/Stainless steel
21	Lower stem	Valve Material
22	Ratchet plate	PP-GR
23	Protection cap	PE
24	Spring	Stainless steel
25	Nut block	PP-GR
26	Cover	PP
27	Nut block button	PP-GR
28	Protection cap	PE
29	Screw	Nylon

*Spare Parts