



## VKDUALBLOCK®

Durapipe are pleased to introduce the new VK Dual Block® ball valve developed by FIP providing an advanced standard in thermoplastic valve design.

The VK Dual Block® is a double union ball valve, that stands up to the most severe industrial application requirements.

### Dual Block®

#### Safe blocked union

Dual Block® is the new patented system developed by FIP that allows you to lock the union nuts of true union ball valves in a preset position. The locking-nut device allows only the clockwise rotation of the nut on installation, and prevents anti-clockwise rotation.

When the valve has been installed and the nuts have been tightened, the Dual Block® system prevents accidental loosening. The VKD is particularly suited to hard working conditions where vibrations or thermal expansion may affect the performance of ordinary true union valves.

The Dual Block® system allows installation of plastic true union valves in chemical plants and/or dangerous fluids transportation lines, combining the flexibility and the simple mounting of a unionised valve with the intrinsic safety of a rugged one piece body flanged valve.

Dismounting the valve from the pipeline is simple, just disengage the Dual Block® system and loosen the nuts by turning them anti-clockwise.

The Dual Block® plate is equipped with holes to fix a tag number label.

### Body

The VK Dual Block® has been fully designed with the analysis of strengths and performance. It has been produced with the most up to date injection moulding technologies.

As a consequence, the valve can withstand the most severe industrial applications, with working pressures up to 16 bar at 20°C, according to ISO 9393.

The valve is made of proven quality and reliable materials. It is available in PVC-U, PP, PVC-C, PVDF, and ABS, sealed with PTFE seats and EPDM or FPM 'O'-rings.

The valve dimensions comply with the EN1452-4 requirements "Medium series".

The VK Dual Block® is fully interchangeable with the previous design of VK industrial ball valve.



Multi functional handle



Mounting flange



Bracketing



ABS



PVC-C



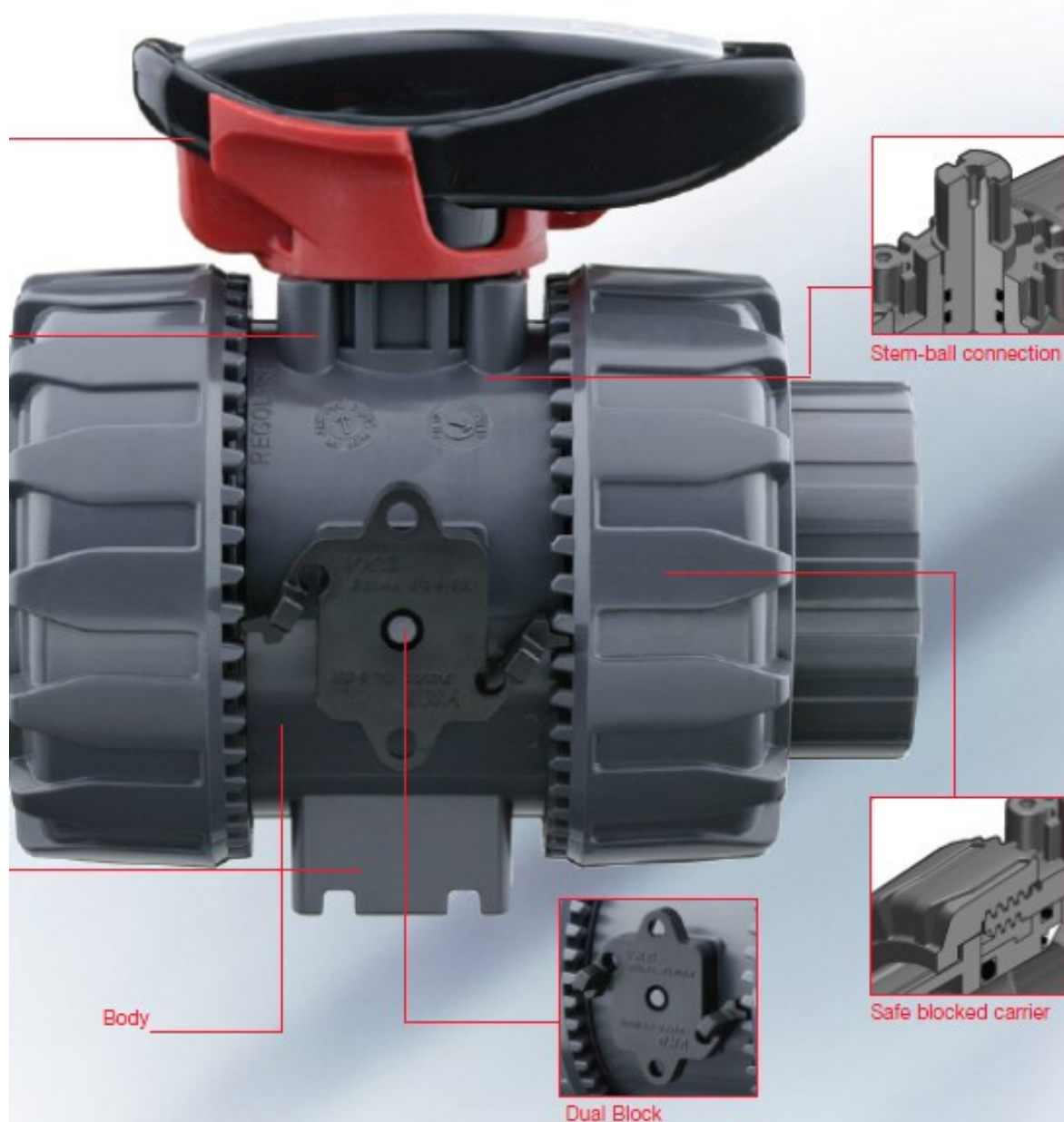
PP



PVDF



PVC-U



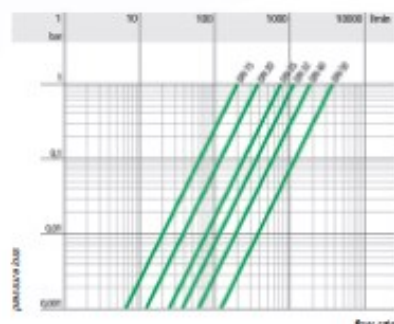
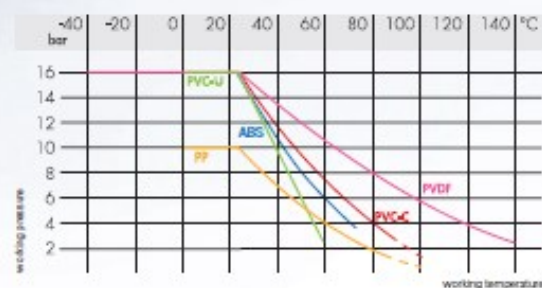


## VKDUALBLOCK®

### Technical data

Pressure/temperature rating for water and harmless fluids to which the material is RESISTANT.

In other cases a reduction of the rated PN is required (25 years with safety factor).



### Flow coefficient kv100

kv100 litres per minute of water at a temperature of 20°C will flow through a valve with a one-bar pressure differential at a specified rate. The kv100 values shown in the table are calculated with the valve completely open.

d	16	20	25	32	40	50	63
DN	10	15	20	25	32	40	50
kv100	80	200	385	770	1100	1750	3400

### a) ABS, PVC-U, PP, PVC-C, PVDF

#### 2-WAY BALL VALVE DUAL BLOCK®

with lockable nuts, metric + BS socket series plain female ends for solvent welding or socket fusion. Seats PTFE/EPDM, PTFE/PPM In other cases a reduction of the rated PN is required (25 years with safety factor).

d	DN	PN	L	Z	H	H1	E	B	B1	C	C1	g
16-3/8"	10	16	14	75	103	66	54	54	29	67	40	215
20-1/2"	15	16	16	71	103	66	54	54	29	67	40	205
25-3/4"	20	16	19	77	115	70	66	66	34,5	85	49	330
32-1"	25	16	22	84	128	78	73	69,5	39	85	49	438
40-1 1/4"	32	16	26	94	146	88	86	82,5	46	108	64	603
50-1 1/2"	40	16	31	102	164	93	98	89	52	108	64	905
63-2"	50	16	38	123	190	111	122	108	62	134	76	1577

### b) PVC-U, PP, PVC-C, PVDF

#### 2-WAY BALL VALVE DUAL BLOCK®

with metric series plain male ends for solvent welding or socket fusion.

Seats PTFE/EPDM, PTFE/PPM

d	DN	PN	L	H	H1	E	B	B1	C	C1	g
16-3/8"	10	16	14	140	66	54	54	29	67	40	215
20-1/2"	15	16	16	124	66	54	54	29	67	40	220
25-3/4"	20	16	19	144	70	66	66	34,5	85	49	340
32-1"	25	16	22	154	78	73	69,5	39	85	49	438
40-1 1/4"	32	16	26	174	88	86	82,5	46	108	64	603
50-1 1/2"	40	16	31	194	93	98	89	52	108	64	945
63-2"	50	16	38	224	111	122	108	62	134	76	1607

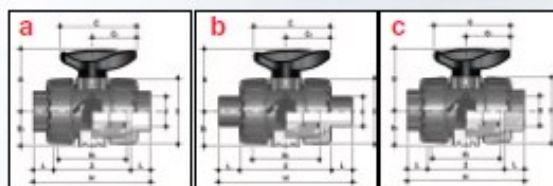
### c) ABS, PVC-U, PP

#### 2-WAY BALL VALVE DUAL BLOCK

with BS parallel threaded female ends.

Seats PTFE/EPDM, PTFE/PPM

R	DN	PN	L	Z	H	H1	E	B	B1	C	C1	g
3/8"	10	16	11,4	80,2	103	66	54	54	29	67	40	215
1/2"	15	16	15	80	110	66	54	54	29	67	40	210
3/4"	20	16	16,3	83,4	116	70	66	66	34,5	85	49	335
1"	25	16	19,1	95,8	134	78	73	69,5	39	85	49	448
1 1/4"	32	16	21,4	110,2	153	88	86	82,5	46	108	64	678
1 1/2"	40	16	21,4	113,2	156	93	98	89	52	108	64	955
2"	50	16	25,7	134,6	286	111	122	108	62	134	76	1667







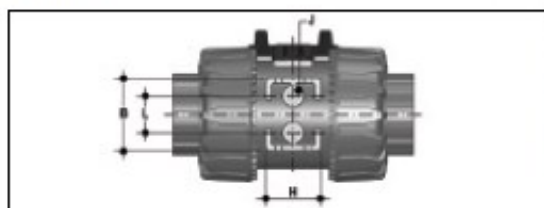
## Bracketing

The VKD is supplied as standard with an integrated moulded bracket for valve and pipeline mounting.

The valve can be equipped with threaded brass or stainless steel inserts as per the following specification:  
M4 (d 20-25-32) M6 (d 40-50-63). The addition of dedicated distance plates is also available.

d	DN	B	H	L	*J
16-3/8"	10	31,5	27	20	M4 x 6
20-1/2"	15	31,5	27	20	M4 x 6
25-3/4"	20	40	30	20	M4 x 6
32-1"	25	40	30	20	M4 x 6
40-1 1/4"	32	50	35	30	M5 x 10
50-1 1/2"	40	50	35	30	M5 x 10
63-2"	50	60	40	30	M5 x 10

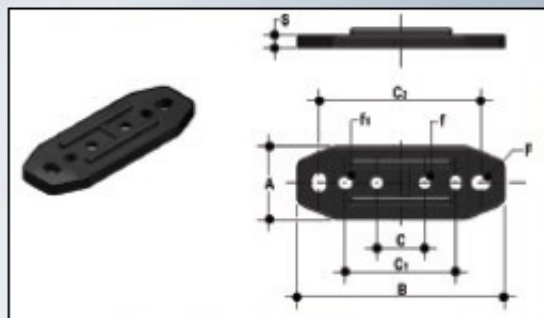
\*With bracketing bushes



## Distance plate

Panel fastening or wall mounting is no longer a problem; spacer plates for wall mounting installations are now available, and the same spacers can be used to align different sized valves.

d	DN	A	B	C	C1	C2	F	f	H	S
16-3/8"	10	30	86	20	46	67,5	6,5	5,3	5,5	5
20-1/2"	15	30	86	20	46	67,5	6,5	5,3	5,5	5
25-3/4"	20	30	86	20	46	67,5	6,5	5,3	5,5	5
32-1"	25	30	86	20	46	67,5	6,5	5,3	5,5	5
40-1 1/4"	32	40	122	30	72	102	6,5	6,3	6,5	6
50-1 1/2"	40	40	122	30	72	102	6,5	6,3	6,5	6
63-2"	50	40	122	30	72	102	6,5	6,3	6,5	6

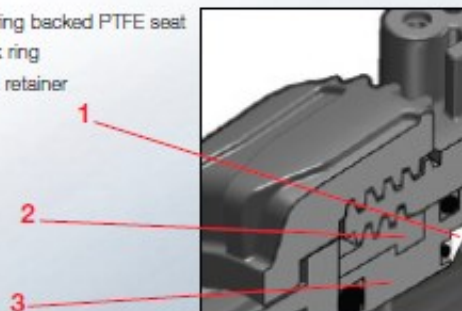


## Ball seat carrier Seat Stop®

The VK Dual Block® valves still utilise the patented "Seat Stop®" system which has been used since 1990, distinguishing the industrial ball valve from other valve series. The ball seat carrier is manufactured in two pieces, one external threaded piece for assembly and one internal piece where the seals are located. Such a design assures greater longevity of the seals in situations where vibration or thermal expansion occurs.

Micro-adjusting of the PTFE seals is also permitted. As any accidental loosening of the ball carrier is not possible, the radial dismounting of the valve body can be done in full safety. The ball carrier can only be removed by means of the special purpose tool inserted into the handle.

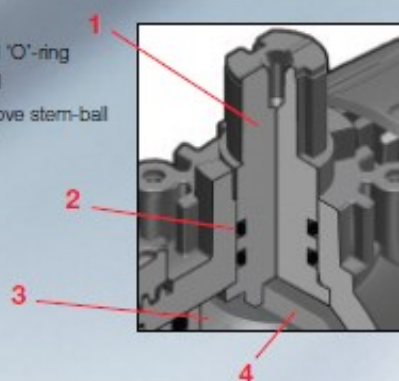
- 1- 'O'-ring backed PTFE seat
- 2- Lock ring
- 3- Seat retainer



## Stem-Ball connection

The valve stem is fully machined after moulding by automatic CNC tool-machines achieving high surface finishing, removing all possible surface imperfections and giving very precise dimensional tolerances. Two 'O'-Rings assure perfect stem sealing. The stem, in each material (PVC-U, PP, PVC-C, PVDF, ABS), has double groove connection to the ball, that assures the best operational torque transmission and high mechanical resistance. The upper part of the stem is shaped for the best reliable connection to various operational devices.

- 1- Stem
- 2- Double seal 'O'-ring
- 3- Floating ball
- 4- Double groove stem-ball connection





## VKDUALBLOCK®

### Mounting flange

The top of the body is shaped to allow direct installation of an actuation device, with standard holes drilled according to ISO 5211 specifications, this also allows for the installation of a bracket for actuator mounting by the end user. This allows safe and easy installation when using PowerQuick, the actuation module.

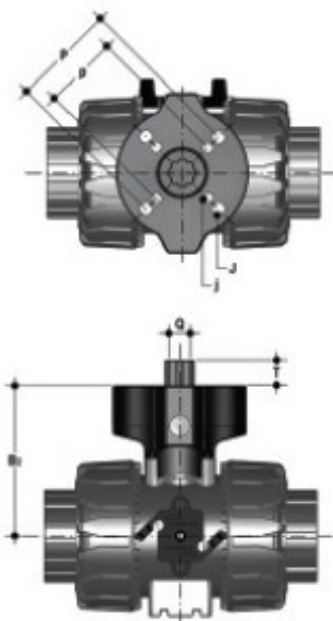
### PowerQuick

PowerQuick has been designed for easy assembling onto the valve body of electric or pneumatic actuators and any other operational or control devices according to ISO 5211. PowerQuick is made of PP-GR technopolymer. It consists of an upper part, removable to allow quick mounting and dismounting of the actuator and drilled according to ISO 5211 (F03-F04-F05-F07), and a lower part perfectly matching the top shape of the valve body. PowerQuick is supplied with the fixing screws and stem adapter.

d	DN	B2	Q	T	p x j	P x J
16-3/8"	10	58	14	16	F03 x 5,5	F04 x 5,5
20-1/2"	15	58	14	16	F03 x 5,5	F04 x 5,5
25-3/4"	20	73,5	14	16	F03 x 5,5	F05 x 6,5
32-1"	25	74	14	16	F03 x 5,5	F05 x 6,5
40-1 1/4"	32	97	14	16	F05 x 6,5	F07 x 8,5
50-1 1/2"	40	104	14	16	F05 x 6,5	F07 x 8,5
63-2"	50	114	14	16	F05 x 6,5	F07 x 8,5

\*F04 x 5.5 on request

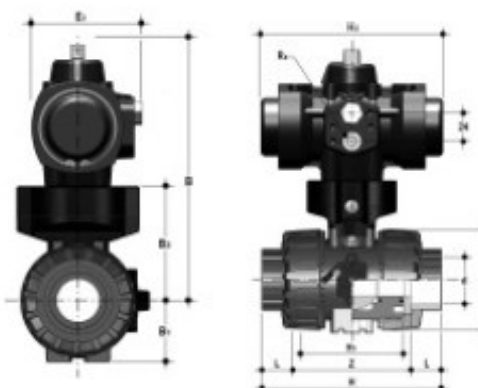
The valve can be supplied, on request, with pneumatic or electric actuators and with gear operators for heavy duty applications.



### Pneumatic Actuation

2-WAY BALL VALVE DUAL BLOCK® with pneumatic actuator.  
Seats PTFE/EPDM, PTFE/FPM

d	DN	PN	B1	B2	B	B	E1	E1	H2	H2	Ra
(NC/NO) (DA) (NC/NO) (DA) (NC/NO) (DA)											
3/8" - d16	10	16	29	58	143	143	68,5	68,5	142	107	1/4"
1/2" - d20	15	16	29	58	143	143	68,5	68,5	142	107	1/4"
3/4" - d25	20	16	34,5	73,5	158,5	158,5	68,5	68,5	142	107	1/4"
1" - d32	25	16	39	74	164	169	80	68,5	155	107	1/4"
1 1/4" - d40	32	16	46	97	207	207	80	80	155	125	1/4"
1 1/2" - d50	40	16	52	104	232	214	102	80	230	125	1/4"
2" - d63	50	16	62	114	242	224	102	80	230	125	1/4"



### Electric Actuation

2-WAY BALL VALVE DUAL BLOCK® with electric actuator.  
Seats PTFE/EPDM, PTFE/FPM

d	DN	PN	B1	B2	B	H2	H3	E1
16-3/8"	10	16	29	58	205	187	82	92
20-1/2"	15	16	29	58	205	187	82	92
25-3/4"	20	16	34,5	73,5	221	187	82	92
32-1"	25	16	39	74	221	187	82	92
40-1 1/4"	32	16	46	97	244	187	82	92
50-1 1/2"	40	16	52	104	251	187	82	92
63-2"	50	**10	62	114	261	187	82	92

\*FPM PN10  
\*\*PN16 on request

