Ball valves

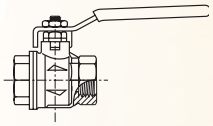
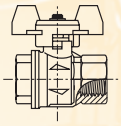
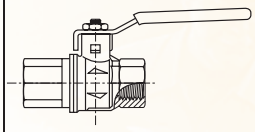
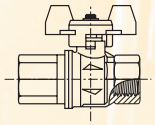
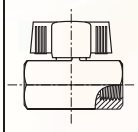
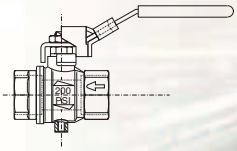
Catalogue 3529/UK

The table below lists general recommendations for the selection of valve materials. For specific cases, and for those not included in the Media Guide, it is advisable to check with your Parker representative.

There are many specific environmental factors which may affect corrosion rate, such as temperature, solution, concentration and presence of impurities. Therefore, we recommend that the information be used only as a guide to material selection. If any questions exist regarding the expected performance of a material in a given application, actual tests should be performed to determine the suitability of the materials in question.

Fluid	Brass	Carbon steel	Stainless steel (316)	Buna N (Nitrile)	Neoprene	EPR	Fluoro-carbon	PTFE	Acetal	Nylon (Polyamide)
Acetone	E	E	E	U	U	E	U	E	E	E
Acetylene	G	E	E	G	P	E	E	E	E	
Air	E	E	E	E	E	E	E	E	E	E
Alcohol, ethyl	G	G	G	E	G	E	E	E	E	G
Alcohol, methyl	E	G	E	G	E	E	P	E	E	G
Animal oil	G	G	G	E	G	G	E			G
Asphalt emulsion	E	G	E	U	P	U	E	E	E	G
Asphalt liquid	E	G	E	P	P	U	E	E	E	G
Beer	G	U	E	G	G	G	E	E	E	U
Benzene	G	G	G	U	U	U	G	E		E
Butane	E	G	E	G	G	U	E	E	E	P
Calcium chloride	G	P	G	E	E	G	E	E	E	U
Carbonated water	G	G	E	E	E	E	E	E	E	E
Caustic soda		G	E	P		G	G	E		
Coffee	E		E	E	E	E	E	G		
Cutting oils	E	G	E	E	G		E	E	E	
Diesel oil fuels	E	E	E	E	P	U	E	E		G
Ethanol	E	U	U	U	E	E	U			G
Ethyl alcohol	G	G	G	E	E		E	E		
Ferrous sulphate	G	U	G	E	E	E	E	E	E	U
Gas, natural	G	G	E	E	E	U	E	E	E	
Gasoline, unleaded	E	E	E	P	U		E	E	E	E
Glucose	E	G	E	E	E	E	E	E	E	
Glycerine	G	P	E	P	U	E	G	E	P	E
Kerosene	E	G	E	E	P	U	E	E	E	G
Methane	E	G	E	E	G		E	E	E	
Methanol	G		E	G	G	U	G	E		G
Methyl alcohol	G	G	G	E	G		P	E		E
Milk & milk products	G	U	E	E	E	E	E	E	E	G
Mineral oils	G	G	E	E	G	U	E	E	E	G
Naphtha	G	G	G	G	P	U	E	E	E	G
Natural gas, sour	G	G	E	E	E	U	E	E		
Nitric acid 100%	U	U	E	U	U	U	G	E	U	U
Nitric acid 30%	U	U	E	P	P	G	E	E	U	U
Nitrogen	E	E	E	E	E	G	E	E	E	G
Paints & solvents	E	E	E	U	U	U	G	E		G
Paper pulp	G		E	G	G	G	G	E		
Paraffin	E	G	E	E	P	U	E	E	E	
Petrolatum (Petroleum Jelly)	G	P	G	E	G		E	E	E	
Propane gas	E	G	G	E	G	U	E	E	E	
Sea water	P	U	G	E	E	E	E	E	E	
Sodium chloride	G	P	G	E	E	G	E	E	E	E
Steam (100°C)	E	E	E	U	U	G	P	E	U	
Sulphur	U	P	G	U	P	G	G	E	E	
Trichlorethylene	G	G	G	U	U	U	G	E	E	U
Water, distilled	E	U	E	P	G	G	E	E	E	E
Water, fresh	E	P	E	P	G	G	E	E	E	E

E = Excellent G = Good P = Poor U = Unsatisfactory

BVGC series BSPP short threads General purpose	 **Female/Female valve with lever handle BSPP** **BVGC** - p. L 5	 **Female/Female valve with compact handle BSPP** **BVGTC -** p. L 5
BVGL series BSPP long threads General purpose	 **Female/Female valve with lever handle BSPP** **BVGL** - p. L 7	 **Female/Female valve with compact handle BSPP** **BVGTL -** p. L 7
MBVG series BSPP short threads Compact	 **Female/Female valve BSPP** **MBVG** - p. L 9	
BVG4PLOCK Series BSPP-long threads Lockable vented valve	 **Female/Female valve BSPP** **BVG4PLOCK** - p. L 11	

See also our extended valves offer in our catalogue 3501-E from Brass Products Division USA.

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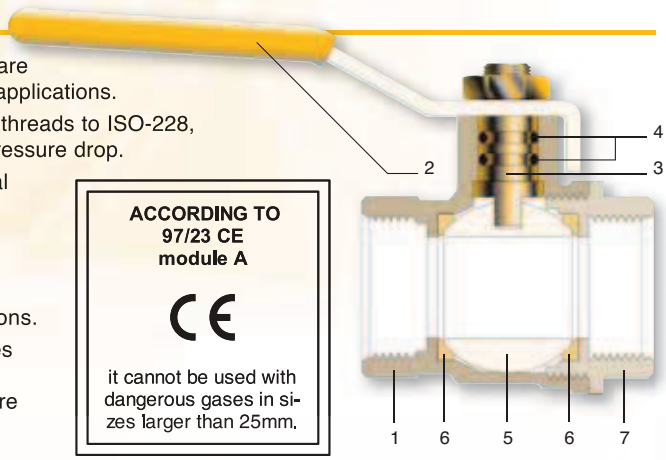
Principle

- Parker BVGC series economy ball valves are designed for use in a wide variety of fluid applications.
- Available with BSPP female/female* short threads to ISO-228, they are full flow valves giving minimum pressure drop.
- The BVGC series has a double PTFE seal on the ball enabling the valve to be used with flow in either direction.
- All seals are treated with a silicone free lubricant enabling the valves to be used in water-based paint spray applications.
- For operator safety the BVGC series valves are fitted with anti-extrusion stems to prevent blow out and all valves are 100% pressure tested to ensure zero leakage.

ACCORDING TO 97/23 CE module A

CE

it cannot be used with dangerous gases in sizes larger than 25mm.



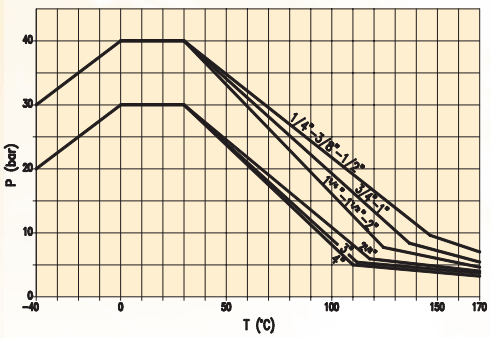
* For other thread configurations please consult your Parker sales engineer.

Technical features

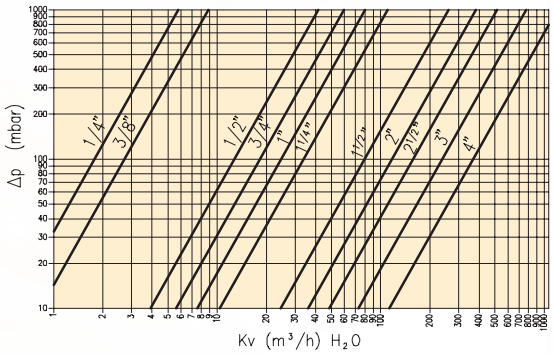
1 Body	2 Lever handle	2 Compact handle	3 Anti extrusion stem	4 Stem packing gland	5 Ball	6 Anti friction ring	7 Forcing nut	Threads	
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Aluminium with yellow epoxy coating	Nickel plated brass	Two Fluorocarbon O-rings	Brass chrome plated	PTFE	Nickel plated brass	1/4" - 2" BSPP to ISO228/ DIN259	See chart below

Operating pressures and temperatures

Pressure - Temperature chart

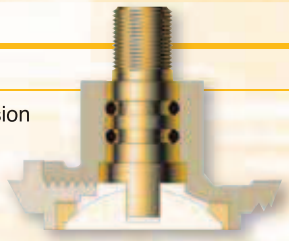


Pressure drop chart



N.B.
These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Advantages



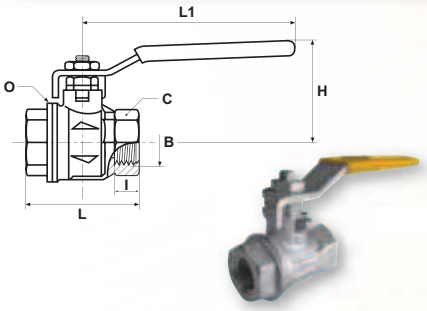
Anti extrusion stem

The BVGC series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks. The stem is sealed with two Fluorocarbon O-rings for maximum safety and performance.

Compact handle

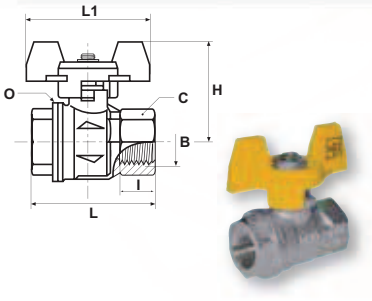
For applications where space is at a premium, the BVGC series valve is available with a compact handle for sizes up to 1".

BVGC - BSPP Female/Female valve with lever handle



DN mm	B	#	C	H	L	L1	O	I	GR
8	1/4	**BVG4-1/4C**	20	39.5	39	82	25.0	9	130
10	3/8	**BVG4-3/8C**	20	39.5	39	82	25.0	9	120
15	1/2	**BVG4-1/2C**	25	44.0	50	100	32.5	11	200
20	3/4	**BVG4-3/4C**	31	50.0	54	120	39.0	12	312
25	1	**BVG4-1C**	38	54.0	67	120	47.5	14	440
32	1.1/4	**BVG4-1.1/4C**	48	76.5	77	158	59.0	15	730
40	1.1/2	**BVG4-1.1/2C**	54	82.5	90	158	71.5	17	972
50	2	**BVG4-2C**	66	89.5	106	158	86.0	19	1500

BVGTC - BSPP Female/Female valve with compact handle



DN mm	B	#	C	H	L	L1	O	I	GR
8	1/4	**BVGT4-1/4C**	20	40	39	50	25.0	9	130
10	3/8	**BVGT4-3/8C**	20	40	39	50	25.0	9	120
15	1/2	**BVGT4-1/2C**	25	44	50	50	32.5	11	180
20	3/4	**BVGT4-3/4C**	31	49	54	60	39.0	12	265
25	1	**BVGT4-1C**	38	53	67	60	47.5	14	390

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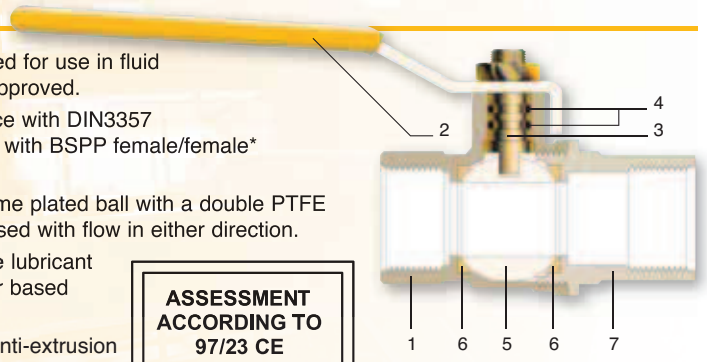
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Principle



- Parker BVGL series valves are designed for use in fluid and gas applications and are DVGW approved.
- The valve dimensions are in accordance with DIN3357 for interchangeability and are available with BSPP female/female* long threads to DIN 2999/ ISO 228.
- These full flow ball valves have a chrome plated ball with a double PTFE seal system enabling the valve to be used with flow in either direction.
- All seals are treated with a silicone free lubricant enabling the valves to be used in water based paint spray applications.
- BVGL series valves are fitted with an anti-extrusion stem with two Fluorocarbon seals for maximum safety and performance.
- After assembly all valves are 100% pressure tested to ensure zero leakage.

ASSESSMENT ACCORDING TO 97/23 CE module B+D by Pascal

CE 1115

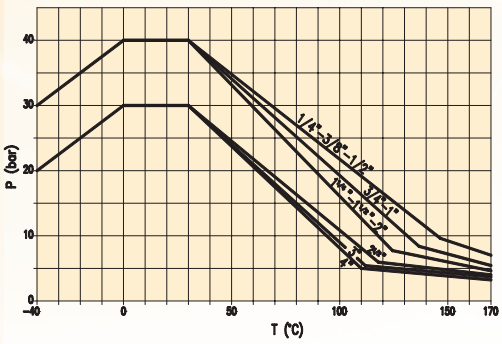
* For other thread configurations please consult us.

Technical features

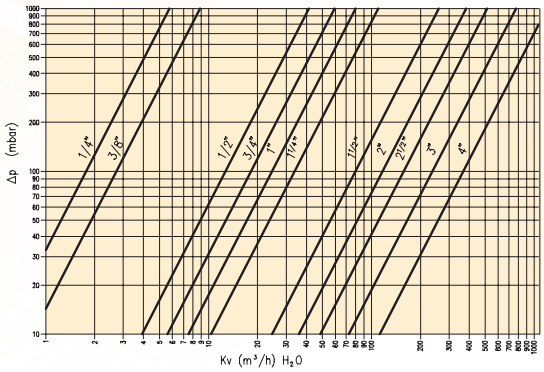
1 Body	2 Lever handle	2 Compact handle	3 Anti extrusion stem	4 Stem seal	5 Ball	6 Anti friction ring	7 Forcing nut	Valve dimensions	
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Aluminium with yellow epoxy coating	Brass nickel plated	Two Fluorocarbon O-rings	Brass chrome plated	PTFE	Brass nickel plated	In accordance with DIN3357	See chart below

Operating pressures and temperatures

Pressure - Temperature chart



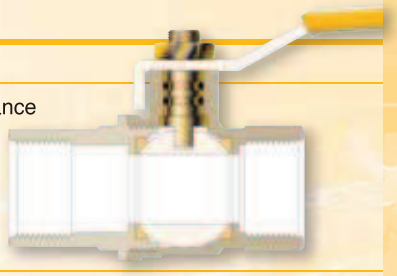
Pressure drop chart



N.B.
These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Parker Hannifin
Fluid Connectors Group

Advantages

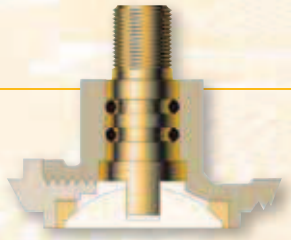


DIN 2999 / ISO 228 female threads

BVGL series valves are manufactured with long female threads in accordance to DIN 2999 / ISO 228. This enables the valves to be used with Prestolok, Metrulok and brass adaptors but also Parker's range of steel hydraulic fittings and EO-fittings form "A" or "C" to DIN 3852.

Full flow

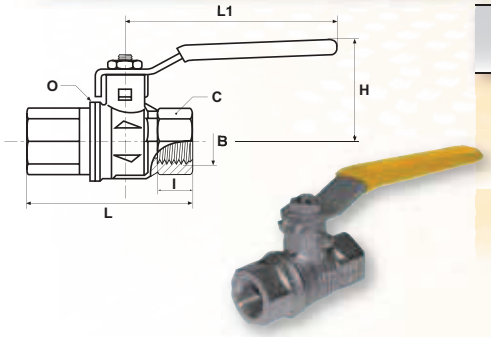
All BVGL series valves are full-flow.
This limits the turbulence created by the passage of fluid across the valve, minimizing pressure drop.



Anti extrusion stem

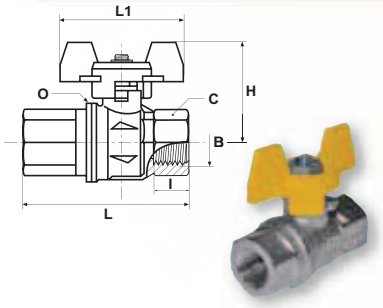
The BVGL series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks.
The stem is sealed with two Fluorocarbon O-rings for maximum safety and performance.

BVGL- BSPP Female/Female valve with lever handle



DN mm	B	#	C	H	L	L1	O	I	GR
8	1/4	**BVG4-1/4L**	20	38	50	82	25.0	12.0	150
10	3/8	**BVG4-3/8L**	20	38	60	82	25.0	12.0	150
15	1/2	**BVG4-1/2L**	25	43	75	100	32.5	15.5	255
20	3/4	**BVG4-3/4L**	32	50	80	120	39.0	17.0	390
25	1	**BVG4-1L**	41	54	90	120	47.5	21.0	590
32	1.1/4	**BVG4-1.1/4L**	50	73	110	158	59.0	23.0	980
40	1.1/2	**BVG4-1.1/2L**	55	79	120	158	71.5	23.0	1205
50	2	**BVG4-2L**	70	86	140	158	86.0	26.5	1960

BVGTL - BSPP Female/Female valve with compact handle



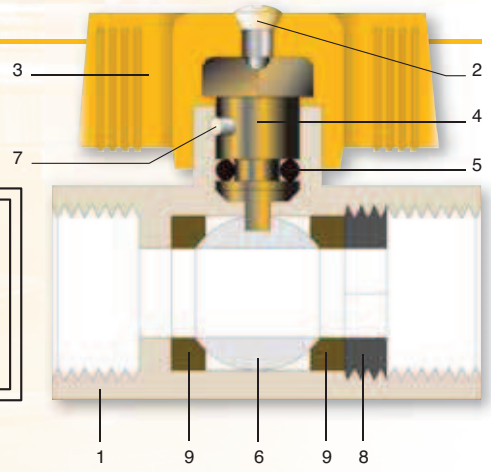
DN mm	B	#	C	H	L	L1	O	I	GR
8	1/4	**BVGT4-1/4L**	20	39	50	50	25.0	12.0	150
10	3/8	**BVGT4-3/8L**	20	39	60	50	25.0	12.0	150
15	1/2	**BVGT4-1/2L**	25	43	75	50	32.5	15.5	230
20	3/4	**BVGT4-3/4L**	32	47	80	60	39.0	17.0	350
25	1	**BVGT4-1L**	41	51	90	60	47.5	21.0	550

For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Principle

- The MBVG series ball valves with their compact design offer the solution to applications where space is an important factor.
- The body is of a particularly robust design.
- The integrity of the sealing on the ball is obtained by the use of PTFE seats.
- The valves are available with BSPP female threads ISO-228/1 (DIN 2999) in: 1/4" 3/8" and 1/2".

The product described in this document meets the requirements of PED Directive 97/23 and according to art.3 par.3, it does not require CE marking.

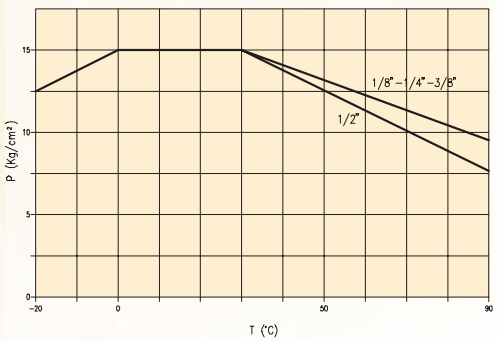


Technical features

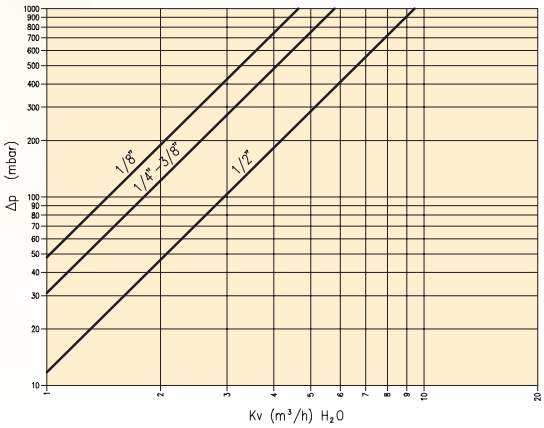
1 Body	2 Handle retention screw	3 Handle	4 Stem	5 Stem seal	6 Ball	7 Anti-extrusion guide pin	8 Nut	9 Seat seals	
Brass chromium plated	Brass chromium plated	Polyamide	Brass	Fluorocarbon O-ring	Brass chromium plated	Stainless steel	Brass	PTFE	See chart below

Operating pressures and temperatures

Pressure - Temperature chart



Pressure drop chart

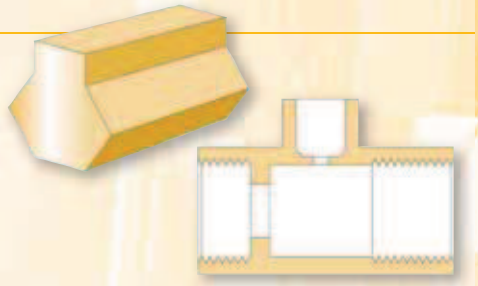


N.B.
These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Advantages

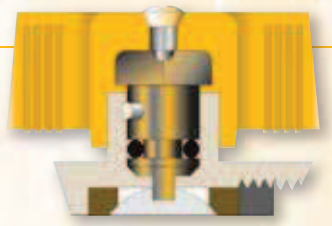
Design of the body

- The valve is manufactured from a solid section which incorporates the stem housing in the body.
- This design allows excellent guidance of the stem, which increases its lifespan.



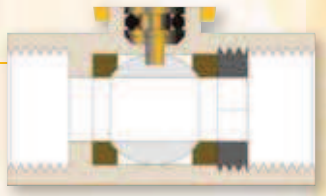
Stem tightness

- A Fluorocarbon O-ring assembled under compression automatically compensates for minute friction wear.
- Thus a high standard of seal is attained

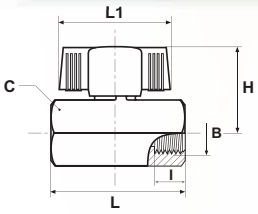


Tightness of the seals

- The perfect tightness of the seals on the casing is obtained by the preset force of the nut, adjusted during assembly.



MBVG - BSPP Female/Female valve



DN mm	B	#	C	H	L	L1	I	GR
8	1/4	**MBVG4-1/4**	21	31.5	41.5	39	11	115
8	3/8	**MBVG4-3/8**	21	31.5	41.5	39	11	102
10	1/2	**MBVG4-1/2**	25	33.5	48.0	39	13	150

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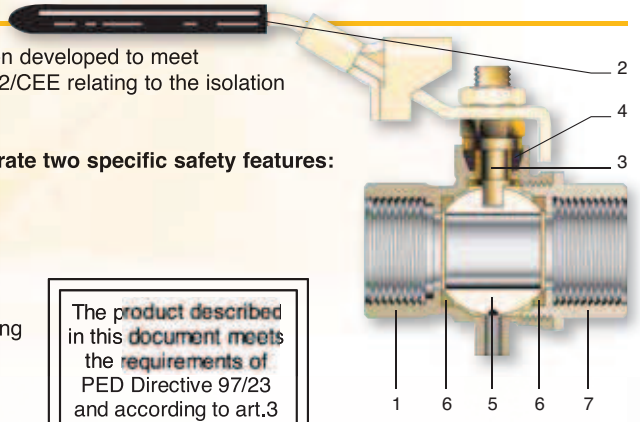
For product availability please consult our price list 3893.
Dimensions shown may be changed at any time without prior notice.

Principle

Parker BVGPLOCK series of ball valves has been developed to meet the requirements of European Directive DI 89/392/CEE relating to the isolation of power supply.



The BVGPLOCK series of ball valves incorporate two specific safety features:

- An M5 threaded venting port enabling downstream pressure to be vented when the valve is closed
- All valves are fitted with a locking mechanism enabling the valve to be padlocked in the closed position, thus preventing tampering or accidental closure of the valve during operation.

All seals are treated with a silicone free lubricant enabling them to be used in water based paint spray applications.

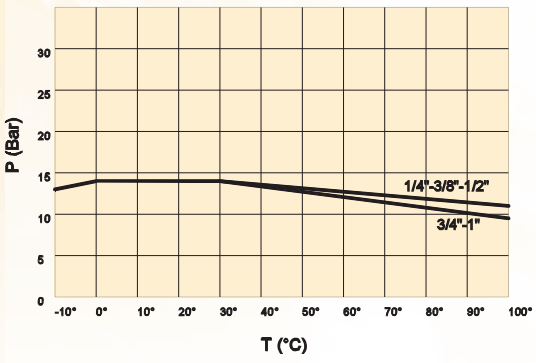
The product described in this document meets the requirements of PED Directive 97/23 and according to art.3 par.3, it does not require CE marking.

Technical features

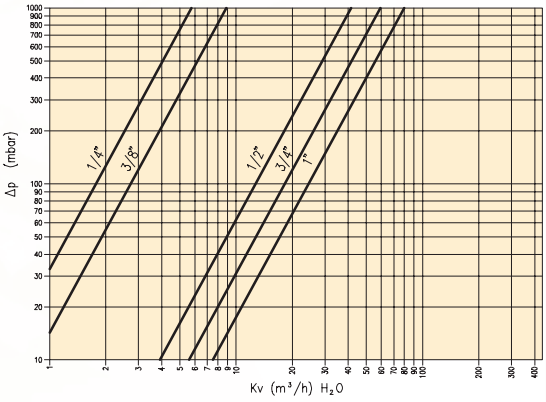
1 Body	2 Lever handle	3 Anti extrusion stem	4 Stem packing gland	5 Ball	6 Anti friction ring	7 Forcing nut	Valve dimensions	
Nickel plated brass to DIN17660 and UNI5705 spec.	Carbon steel with yellow PVC coating	Brass nickel plated	PTFE	Brass chrome plated	PTFE	Brass nickel plated	In accordance with DIN3357	See chart below

Operating pressures and temperatures

Pressure - Temperature chart



Pressure drop chart

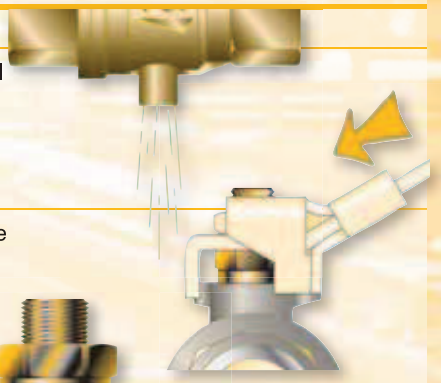


N.B.
These charts give general information. Only testing under operating conditions will finally determine which valve should be selected.

Advantages

Threaded exhaust

BVGPLOCK series ball valves are manufactured with an M5 threaded exhaust port, this safety feature enables the downstream air pressure to be vented when the valve is closed.

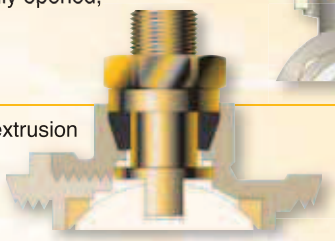


Lockable handle

The BVGPLOCK series ball valves are fitted with a handle that can be locked in the closed position with a padlock.
This safety feature ensures the valve cannot be accidentally opened, and only authorised personel can operate the valve.

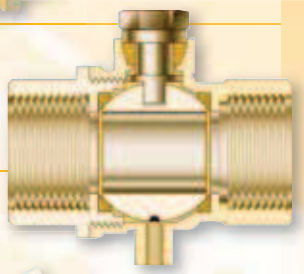
Anti extrusion stem

The BVGPLOCK series ball valves are fitted with an anti-extrusion stem to prevent blow out in the case of pressure peaks.



DIN 2999 / ISO 228 female threads

BVGPLOCK series valves are manufactured with female threads in accordance to DIN 2999/ISO228. This enables the valves to be used with Prestolok, Metrulok and brass adaptors but also Parker's range of steel hydraulic fittings and EO-fittings form "A" or "C" to DIN 3852.

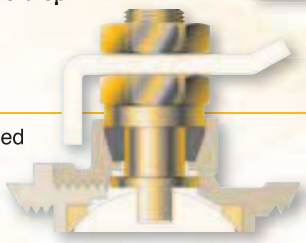


Full flow

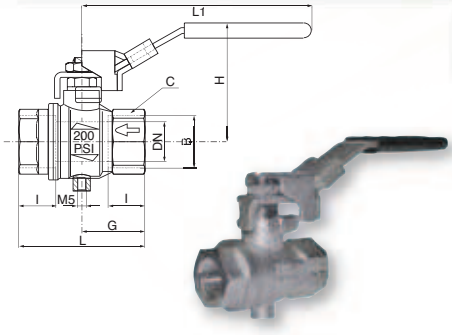
All BVGPLOCK series valves are full-flow. This limits the turbulence created by the passage of fluid across the valve, minimizing pressure drop.

Adjustable packing

The PTFE packing gland and adjustable washer are designed to give longer service life and lower operating torques.



BVG4PLOCK - BSPP Female/Female lockable vented valve with lever handle



DN	B	#	C	G	H	I	L	L1	GR
8	1/4	**BVG4P-1/4LOCK**	20	22.5	47.5	12.0	45	96	154
10	3/8	**BVG4P-3/8LOCK**	20	22.5	47.5	12.0	45	96	171
16	1/2	**BVG4P-1/2LOCK**	25	29.5	52.0	15.5	59	96	238
20	3/4	**BVG4P-3/4LOCK**	31	32.0	59.5	17.0	64	117	370
25	1	**BVG4P-1LOCK**	40	40.5	63.5	21.0	81	117	580