

Benefits, applications and design features

Features

- Unique end connection system
- 90° fast actuation
- Low operating torque
- Bi-directional flow
- Replaceable seats
- Temperature rating -45 – 230°C
- Up to 6,000psi
- Colour coded handle
- Anti blow out spindle

Applications

- Hydraulic test equipment
- Pneumatic systems
- Laboratory equipment
- Liquid or vapour services
- Corrosive applications

PVC sleeve colour coded for pressure rating.
3000 psi - Blue
6000 psi - Yellow

Handle pressed from 304 Stainless Steel for corrosion resistance and long life with 90° positive stop.

Lockable handles or pneumatically operated actuators can be supplied fully assembled, with the Waverley brownall 3000 class valve range.

One piece anti-blow out spindle incorporated into design ensuring safety and seal integrity. An anti-vibration nyloc nut is incorporated on the spindle.

Body manufactured from hexagon bar stock in 316 stainless steel as standard. Designed to accept our unique end connections.

Ball is manufactured from 316 stainless steel to give material continuity throughout the valve. It is of a floating ball arrangement, which compensates for seat wear and fluctuations in pressure and temperature.

BV 3,000 and 6,000 seats are manufactured from Peek and are easily renewable.



Technical specifications

Technical specifications

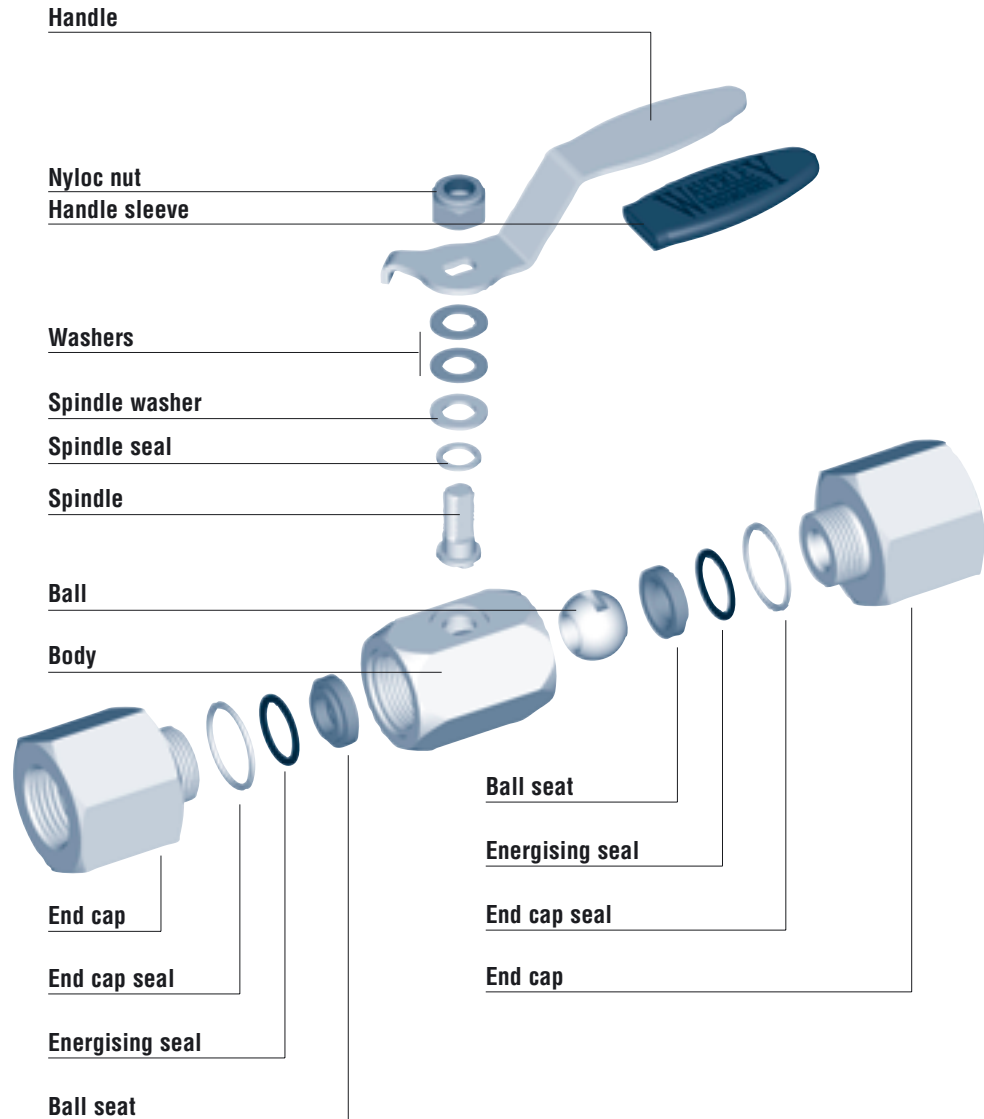
Pressure range	0-3000psi	
	0-6000psi	
Temperature range	-45 to 230°C	
Cv rating (ball orifice diameter)		
Valve	Cv	Orifice
1/4"	5.0	(0.375")
3/8"	5.0	(0.375")
1/2"	5.0	(0.375")
3/4"	14.0	(0.600")
1"	14.0	(0.600")

Materials of construction

Body	316 stainless steel
Ball	316 stainless steel
Spindle	316 stainless steel
Spindle seal	PTFE glass filled
Spindle washer	PTFE
End cap	316 stainless steel
Handle	304 stainless steel
Belleville washer	316 stainless steel
Nyloc nut	316 stainless steel
Handle sleeve	PVC
Ball seat	Peek
Energising seal	PTFE
End cap seal	PTFE

Valve markings

Make or manufacturer	Waverley
Pressure rating	3000, 6000psi
Cast code	ABC



Testing

All Waverley ball valves are 100% tested for sealing performance based on BS 6755 Pt1. These tests consist of: Low pressure (50psi 3.5 bar)
 BV 3000 High pressure shell (4,500psi 310 Bar) BV 6000 High pressure shell (9,000psi 620 Bar).

Seal kits

Seal kits are supplied for necessary maintenance. These consist of ball seats and spindle seals.

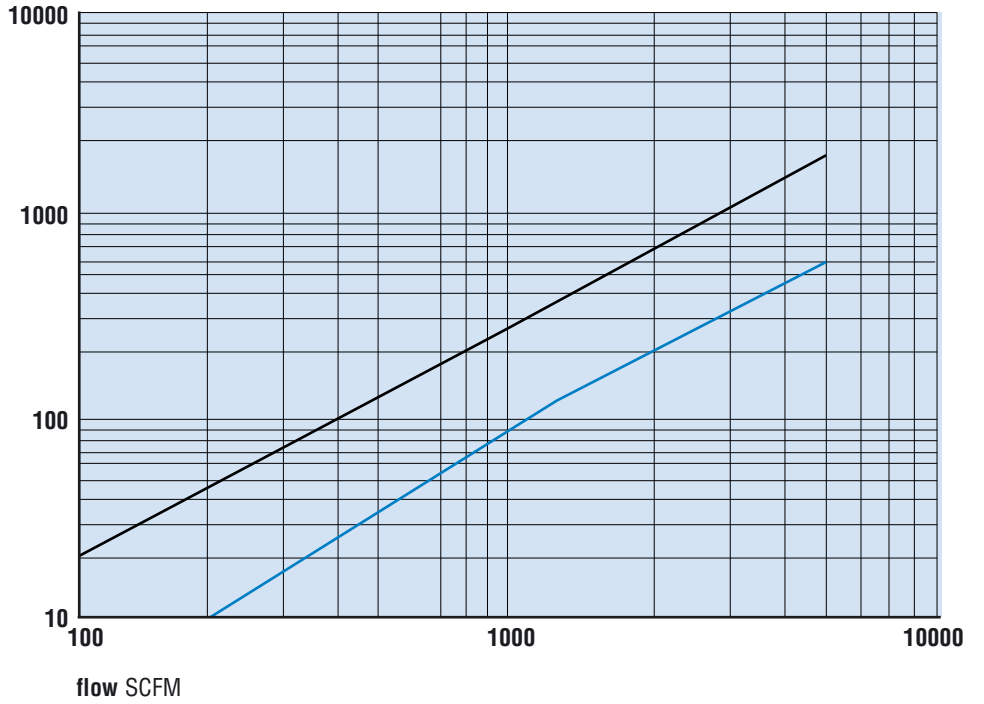
Cleaning and packaging

All Waverley ball valves are fully degreased and sealed. Cleaning for oxygen use on application.

Air flow

- 1/4" to 1/2"
- 3/4" to 1"

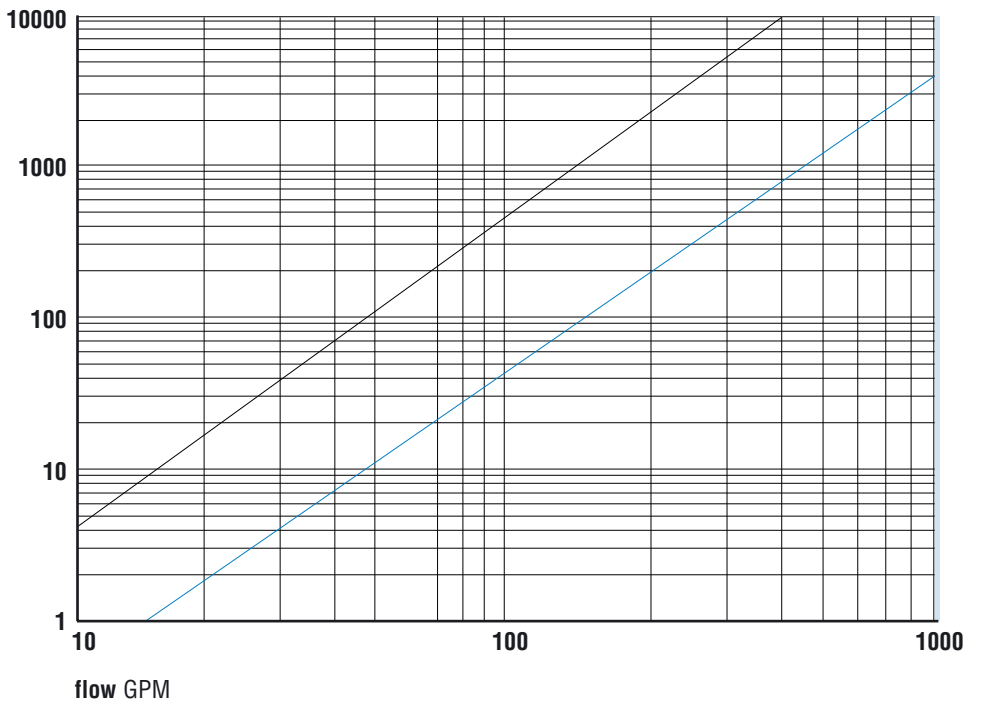
pressure drop psi



Water flow

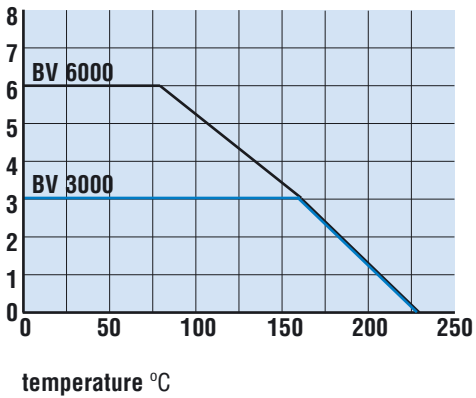
- 1/4", 3/8", 1/2"
- 3/4", 1"

pressure drop psi



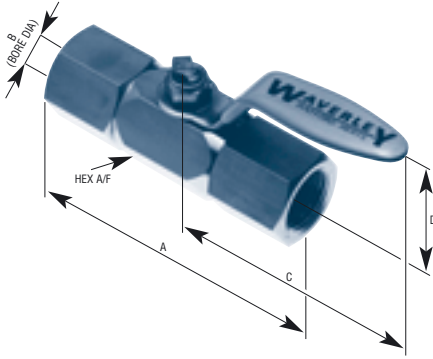
Pressure vs temperature performance

pressure psi thousands



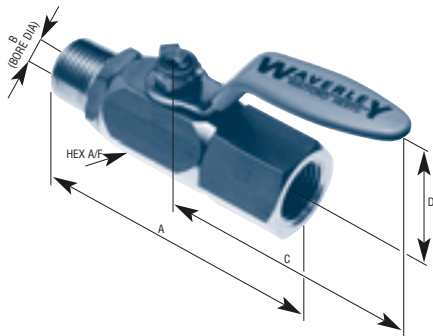
BV 3000 SERIES BALL VALVES

Female/female 3000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV3000/2P	3.060"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV3000/3P	3.420"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV3000/4P	3.694"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV3000/6P	4.341"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV3000/8P	4.464"	0.600"	3.950"	2.175"	1.750"
Rc 1/4" BSPT	BV3000/2T	3.200"	0.375"	3.150"	1.772"	1.125"
Rc 3/8" BSPT	BV3000/3T	3.420"	0.375"	3.150"	1.772"	1.125"
Rc 1/2" BSPT	BV3000/4T	3.694"	0.375"	3.150"	1.772"	1.125"
Rc 3/4" BSPT	BV3000/6T	4.335"	0.600"	3.950"	2.175"	1.750"
Rc 1" BSPT	BV3000/8T	4.585"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV3000/2N	3.200"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV3000/3N	3.420"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV3000/4N	3.694"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV3000/6N	4.335"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV3000/8N	4.585"	0.600"	3.950"	2.175"	1.750"

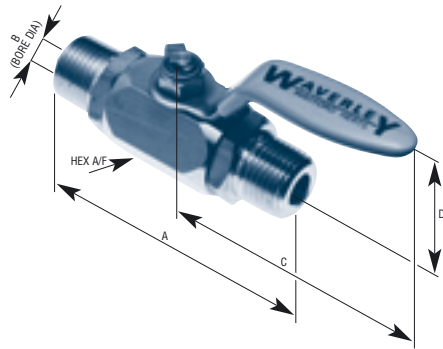
Male/female 3000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV3000/2P MF	2.980"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV3000/3P MF	3.240"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV3000/4P MF	3.447"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV3000/6P MF	4.520"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV3000/8P MF	4.630"	0.600"	3.950"	2.175"	1.750"
Rc 1/4" BSPT	BV3000/2T MF	3.100"	0.375"	3.150"	1.772"	1.125"
Rc 3/8" BSPT	BV3000/3T MF	3.210"	0.375"	3.150"	1.772"	1.125"
Rc 1/2" BSPT	BV3000/4T MF	3.534"	0.375"	3.150"	1.772"	1.125"
Rc 3/4" BSPT	BV3000/6T MF	4.515"	0.600"	3.950"	2.175"	1.750"
Rc 1" BSPT	BV3000/8T MF	4.762"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV3000/2N MF	3.100"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV3000/3N MF	3.272"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV3000/4N MF	3.534"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV3000/6N MF	4.515"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV3000/8N MF	4.762"	0.600"	3.950"	2.175"	1.750"

BV 3000 SERIES BALL VALVES

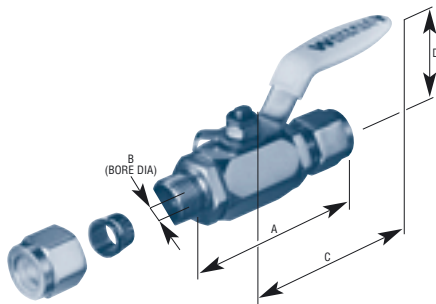
Male/male 3000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV3000/2P M	2.900"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV3000/3P M	3.060"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV3000/4P M	3.200"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV3000/6P M	4.690"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV3000/8P M	4.790"	0.600"	3.950"	2.175"	1.750"
R 1/4" BSPT	BV3000/2T M	3.000"	0.375"	3.150"	1.772"	1.125"
R 3/8" BSPT	BV3000/3T M	3.125"	0.375"	3.150"	1.772"	1.125"
R 1/2" BSPT	BV3000/4T M	3.375"	0.375"	3.150"	1.772"	1.125"
R 3/4" BSPT	BV3000/6T M	4.690"	0.600"	3.950"	2.175"	1.750"
R 1" BSPT	BV3000/8T M	4.940"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV3000/2N M	3.000"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV3000/3N M	3.125"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV3000/4N M	3.375"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV3000/6N M	4.690"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV3000/8N M	4.940"	0.600"	3.950"	2.175"	1.750"

Duoloc® single ferrule OD compression 3000lb class

Length A is from abutment to abutment

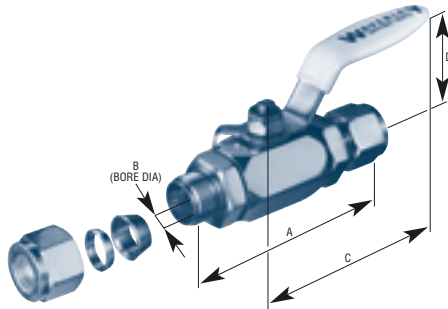


tube OD	part number	A	B	C	D	hex A/F
1/8"	BV3000/10D	2.240"	0.375"	3.150"	1.772"	1.125"
3/16"	BV3000/3/16OD	2.240"	0.375"	3.150"	1.772"	1.125"
1/4"	BV3000/20D	2.240"	0.375"	3.150"	1.772"	1.125"
3/8"	BV3000/30D	2.304"	0.375"	3.150"	1.772"	1.125"
1/2"	BV3000/40D	2.302"	0.375"	3.150"	1.772"	1.125"
3/4"	BV3000/60D	3.564"	0.600"	3.950"	2.175"	1.750"
1"	BV3000/80D	3.752"	0.600"	3.950"	2.175"	1.750"
6mm	BV3000/6MOD	57.5mm	9.5mm	80.0mm	45.0mm	28.6mm
8mm	BV3000/8MOD	56.5mm	9.5mm	80.0mm	45.0mm	28.6mm
10mm	BV3000/10MOD	57.0mm	9.5mm	80.0mm	45.0mm	28.6mm
12mm	BV3000/12MOD	57.0mm	9.5mm	80.0mm	45.0mm	28.6mm
15mm	BV3000/15MOD	57.5mm	9.5mm	80.0mm	45.0mm	28.6mm
16mm	BV3000/16MOD	58.0mm	9.5mm	80.0mm	45.0mm	28.6mm
18mm	BV3000/18MOD	58.5mm	9.5mm	80.0mm	45.0mm	28.6mm
20mm	BV3000/20MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm
22mm	BV3000/22MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm
25mm	BV3000/25MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm

BV 3000 SERIES BALL VALVES

Ringlok® double ferrule OD compression 3000lb class

Length A is from abutment to abutment



tube OD	part number	A	B	C	D	hex A/F
1/8"	BV3000=10D	2.240"	0.375"	3.150"	1.772"	1.125"
3/16"	BV3000=3/16OD	2.240"	0.375"	3.150"	1.772"	1.125"
1/4"	BV3000=20D	2.240"	0.375"	3.150"	1.772"	1.125"
3/8"	BV3000=30D	2.304"	0.375"	3.150"	1.772"	1.125"
1/2"	BV3000=40D	2.302"	0.375"	3.150"	1.772"	1.125"
3/4"	BV3000=60D	3.564"	0.600"	3.950"	2.175"	1.750"
1"	BV3000=80D	3.752"	0.600"	3.950"	2.175"	1.750"
6mm	BV3000=6MOD	57.5mm	9.5mm	80.0mm	45.0mm	28.6mm
8mm	BV3000=8MOD	56.5mm	9.5mm	80.0mm	45.0mm	28.6mm
10mm	BV3000=10MOD	57.0mm	9.5mm	80.0mm	45.0mm	28.6mm
12mm	BV3000=12MOD	57.0mm	9.5mm	80.0mm	45.0mm	28.6mm
15mm	BV3000=15MOD	57.5mm	9.5mm	80.0mm	45.0mm	28.6mm
16mm	BV3000=16MOD	58.0mm	9.5mm	80.0mm	45.0mm	28.6mm
18mm	BV3000=18MOD	58.5mm	9.5mm	80.0mm	45.0mm	28.6mm
20mm	BV3000=20MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm
22mm	BV3000=22MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm
25mm	BV3000=25MOD	90.0mm	15.2mm	100.0mm	55.2mm	44.5mm

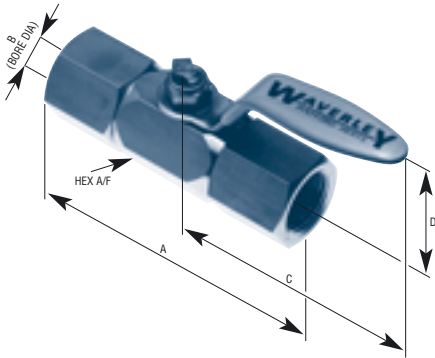
Special design features any combination of ends



With the 3000lb class ball valve range there are two sizes of ball valve body. This enables you to select combinations of ends and sizes
e.g. 1/2" BSPP female x 1/2" OD compression (as shown in photo).

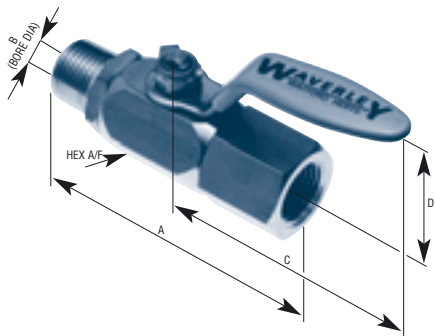
BV 6000 SERIES BALL VALVES

Female/female 6000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV6000/2P	3.060"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV6000/3P	3.420"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV6000/4P	3.694"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV6000/6P	4.341"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV6000/8P	4.464"	0.600"	3.950"	2.175"	1.750"
Rc 1/4" BSPT	BV6000/2T	3.200"	0.375"	3.150"	1.772"	1.125"
Rc 3/8" BSPT	BV6000/3T	3.420"	0.375"	3.150"	1.772"	1.125"
Rc 1/2" BSPT	BV6000/4T	3.694"	0.375"	3.150"	1.772"	1.125"
Rc 3/4" BSPT	BV6000/6T	4.335"	0.600"	3.950"	2.175"	1.750"
Rc 1" BSPT	BV6000/8T	4.585"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV6000/2N	3.200"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV6000/3N	3.420"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV6000/4N	3.694"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV6000/6N	4.335"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV6000/8N	4.585"	0.600"	3.950"	2.175"	1.750"

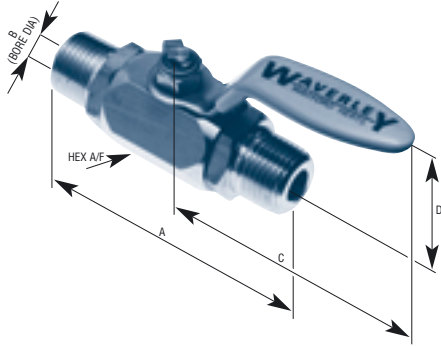
Male/female 6000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV6000/2P MF	2.980"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV6000/3P MF	3.240"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV6000/4P MF	3.447"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV6000/6P MF	4.520"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV6000/8P MF	4.630"	0.600"	3.950"	2.175"	1.750"
R 1/4" BSPT	BV6000/2T MF	3.100"	0.375"	3.150"	1.772"	1.125"
R 3/8" BSPT	BV6000/3T MF	3.210"	0.375"	3.150"	1.772"	1.125"
R 1/2" BSPT	BV6000/4T MF	3.534"	0.375"	3.150"	1.772"	1.125"
R 3/4" BSPT	BV6000/6T MF	4.515"	0.600"	3.950"	2.175"	1.750"
R 1" BSPT	BV6000/8T MF	4.762"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV6000/2N MF	3.100"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV6000/3N MF	3.272"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV6000/4N MF	3.534"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV6000/6N MF	4.515"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV6000/8N MF	4.762"	0.600"	3.950"	2.175"	1.750"

BV 6000 SERIES BALL VALVES

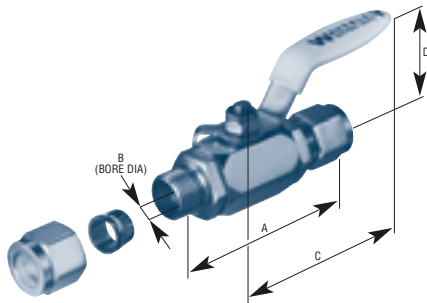
Male/male 6000lb class



thread size	part number	A	B	C	D	hex A/F
G 1/4" BSP	BV6000/2P M	2.900"	0.375"	3.150"	1.772"	1.125"
G 3/8" BSP	BV6000/3P M	3.060"	0.375"	3.150"	1.772"	1.125"
G 1/2" BSP	BV6000/4P M	3.200"	0.375"	3.150"	1.772"	1.125"
G 3/4" BSP	BV6000/6P M	4.690"	0.600"	3.950"	2.175"	1.750"
G 1" BSP	BV6000/8P M	4.790"	0.600"	3.950"	2.175"	1.750"
R 1/4" BSPT	BV6000/2T M	3.000"	0.375"	3.150"	1.772"	1.125"
R 3/8" BSPT	BV6000/3T M	3.125"	0.375"	3.150"	1.772"	1.125"
R 1/2" BSPT	BV6000/4T M	3.750"	0.375"	3.150"	1.772"	1.125"
R 3/4" BSPT	BV6000/6T M	4.690"	0.600"	3.950"	2.175"	1.750"
R 1" BSPT	BV6000/8T M	4.690"	0.600"	3.950"	2.175"	1.750"
1/4" NPTF	BV6000/2N M	3.000"	0.375"	3.150"	1.772"	1.125"
3/8" NPTF	BV6000/3N M	3.125"	0.375"	3.150"	1.772"	1.125"
1/2" NPTF	BV6000/4N M	3.375"	0.375"	3.150"	1.772"	1.125"
3/4" NPTF	BV6000/6N M	4.690"	0.600"	3.950"	2.175"	1.750"
1" NPTF	BV6000/8N M	4.690"	0.600"	3.950"	2.175"	1.750"

Duoloc® single ferrule OD compression 6000lb class

Length A is from abutment to abutment

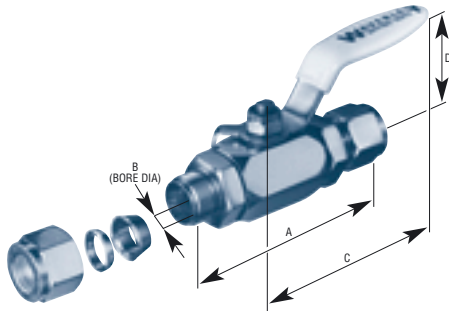


tube OD	part number	A	B	C	D	hex A/F
1/8"	BV6000/10D	2.240"	0.375"	3.150"	1.772"	1.125"
3/16"	BV6000/3/160D	2.240"	0.375"	3.150"	1.772"	1.125"
1/4"	BV6000/20D	2.240"	0.375"	3.150"	1.772"	1.125"
3/8"	BV6000/30D	2.304"	0.375"	3.150"	1.772"	1.125"
1/2"	BV6000/40D	2.302"	0.375"	3.150"	1.772"	1.125"
3/4"	BV6000/60D	3.564"	0.600"	3.950"	2.175"	1.750"
1"	BV6000/80D	3.752"	0.600"	3.950"	2.175"	1.750"
6mm	BV6000/6MOD	57.5mm	9.5mm	80mm	45mm	28.6mm
8mm	BV6000/8MOD	56.5mm	9.5mm	80mm	45mm	28.6mm
10mm	BV6000/10MOD	57mm	9.5mm	80mm	45mm	28.6mm
12mm	BV6000/12MOD	57mm	9.5mm	80mm	45mm	28.6mm
15mm	BV6000/15MOD	57.5mm	9.5mm	80mm	45mm	28.6mm
16mm	BV6000/16MOD	58mm	9.5mm	80mm	45mm	28.6mm
18mm	BV6000/18MOD	58.5mm	9.5mm	80mm	45mm	28.6mm
20mm	BV6000/20MOD	90mm	15.2mm	100mm	55.2mm	44.5mm
22mm	BV6000/22MOD	90mm	15.2mm	100mm	55.2mm	44.5mm
25mm	BV6000/25MOD	90mm	15.2mm	100mm	55.2mm	44.5mm

BV 6000 SERIES BALL VALVES

Ringlok® double ferrule OD compression 6000lb class

Length A is from abutment to abutment



tube OD	part number	A	B	C	D	hex A/F
1/8"	BV6000=10D	2.200"	0.375"	3.150"	1.772"	1.125"
3/16"	BV6000=3/16OD	2.200"	0.375"	3.150"	1.772"	1.125"
1/4"	BV6000=20D	2.204"	0.375"	3.150"	1.772"	1.125"
3/8"	BV6000=30D	2.202"	0.375"	3.150"	1.772"	1.125"
1/2"	BV6000=40D	2.076"	0.375"	3.150"	1.772"	1.125"
3/4"	BV6000=60D	2.990"	0.600"	3.950"	2.175"	1.750"
1"	BV6000=80D	2.934"	0.600"	3.950"	2.175"	1.750"
6mm	BV6000=6MOD	55mm	9.5mm	80mm	45mm	28.6mm
8mm	BV6000=8MOD	56mm	9.5mm	80mm	45mm	28.6mm
10mm	BV6000=10MOD	55mm	9.5mm	80mm	45mm	28.6mm
12mm	BV6000=12MOD	51mm	9.5mm	80mm	45mm	28.6mm
15mm	BV6000=15MOD	50mm	9.5mm	80mm	45mm	28.6mm
16mm	BV6000=16MOD	50mm	9.5mm	80mm	45mm	28.6mm
18mm	BV6000=18MOD	52mm	9.5mm	80mm	45mm	28.6mm
20mm	BV6000=20MOD	76mm	15.2mm	100mm	55.2mm	44.5mm
22mm	BV6000=22MOD	76mm	15.2mm	100mm	55.2mm	44.5mm
25mm	BV6000=25MOD	76mm	15.2mm	100mm	55.2mm	44.5mm

Special design features and combination of ends



With the 6000lb class ball valve range there are two sizes of ball valve body. This enables you to select combinations of ends and sizes e.g. 1/2" BSPP female x 1/2" OD compression (as shown in photo).