

Cryogenic Bronze Ball Valve

Reduced Bore

DN15- DN50 (1/2" - 2")

This Bronze uni-directional ball valve has been designed specifically for cryogenic applications. It is available with NPT or BSP threaded ends.

The flow co-efficient (CV) allows full flow of media from filling stations and portable delivery systems therefore no delay in filling time.

Other variations include:

- Stainless Steel Version
- Actuated
- Full Bore

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Maximum Working Pressure (MWP)

Subject to end connections

Up to 50 bar (725 psi) at -196°C to +65°C

Features

- Spring loaded gland seal giving low torque levels under both ambient and cryogenic conditions
- One piece, anti-blow-out stem
- Relief hole to prevent trapping of liquefied gases
- Designed to prevent incorrect, and hence dangerous, re-assembly after stripping for maintenance
- Removable centre section designed to industry standard dimensions, allowing interchangeability in existing installations
- Valves can be supplied with actuators fitted allowing fast, remote automatic operation
- Long life spring loaded gland packing

Technical

- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

CE Marked according to the Pressure Equipment Directive



DN50 Bronze Ball Valve with NPT Threaded Ends



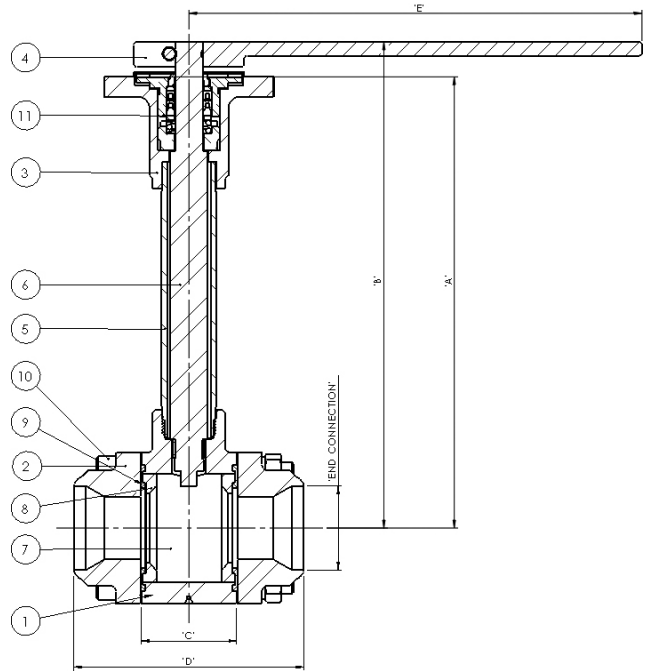
DN15 Ball Valve with NPT Threaded Ends



DN25 Ball Valve with NPT Threaded Ends

Materials

	Bronze
1. Body	Gunmetal BS EN 1982 CC491K
2. End Adaptors	Gunmetal BS EN 1982 CC491K
3. Gland Housing	Stainless Steel ASTM A351 CF8M
4. Lever	Stainless Steel ASTM A351 CF8M
5. Extension Tube	Stainless Steel ASTM A269 TP304L
6. Stem	Stainless Steel BS EN 10088-3 1.4401
7. Ball	Brass BS EN 12164 CW614N
8. Ball Seal	Hostafion
9. End Adaptor Seal	Virgin PTFE
10. Fasteners	Stainless Steel BS6105 A2/A4 Gr.70
11. Gland Packings	Virgin PTFE



Specifications

Size	Valve Size		Reduced Bore Size		Dimension						Torque		CV (US GPM)	Weight (kg)
	mm	in	mm	in	A	B	C	D	E	P.C.D	Nm	lbft		
DN15	15	½	11	¾	230	250	21	67	190	50	10	7	9	2
DN25	25	1	20	¾	230	250	32	96	190	60	23	17	30	3
DN40	40	1½	32	1¼	230	250	49	117	230	80	40	30	90	5
DN50	50	2	37	1½	230	250	56	129	230	100	62	46	138	7

How to Order

Part Number	Valve Size Diameter Nominal (DN)	Connection Type	Stem Length (mm)
CZFR30GTAE4BND	DN15	BSP-PL	230
CZFR30GTEE4BND		NPT	
CZFR50GTAE4BND	DN25	BSP-PL	230
CZFR50GTEE4BND		NPT	
CZFR70GTAE4BND	DN40	BSP-PL	230
CZFR70GTEE4BND		NPT	
CZFR80GTAE4BND	DN50	BSP-PL	230
CZFR80GTEE4BND		NPT	

Please contact us for other options.

Cryogenic Stainless Steel Ball Valve

Reduced Bore

DN15 - DN50 (1/2" - 2")

This Stainless Steel uni-directional ball valve has been designed specifically for cryogenic applications. It is available with Socket Weld and Butt Weld ends.

The flow co-efficient (CV) allows full flow of media from filling stations and portable delivery systems therefore no delay in filling time.

Other variations include:

- Bronze Version
- Actuated
- Full Bore

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Maximum Working Pressure (MWP)

Subject to end connections

Up to 50 bar (725 psi) at -196°C to +65°C

Features

- Spring loaded gland seal giving low torque levels under both ambient and cryogenic conditions
- Precision investment cast body - smooth surface finish
- Once piece, anti-blow-out stem
- Relief hole to prevent trapping of liquefied gases
- Designed to prevent incorrect, and hence dangerous, re-assembly after stripping for maintenance
- Removable centre section designed to industry standard dimensions, allowing interchangeability in existing installations
- Valves can be supplied with actuators fitted allowing fast, remote automatic operation
- Long life spring loaded gland packing

Technical

- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

CE Marked according to the Pressure Equipment Directive



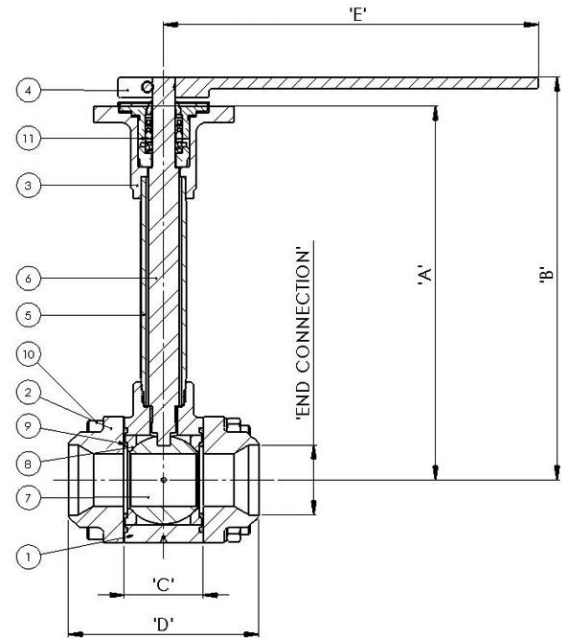
DN40 Stainless Steel Ball Valve with Butt Weld Ends



DN40 Stainless Steel Ball Valve with Socket Ends

Materials

	Stainless Steel
1. Body	Stainless Steel ASTM A351 CF8M
2. End Adaptors	Stainless Steel ASTM A351 CF8M
3. Gland Housing	Stainless Steel ASTM A351 CF8M
4. Lever	Stainless Steel ASTM A351 CF8M
5. Extension Tube	Stainless Steel ASTM A312 TP304L
6. Stem	Stainless Steel BS EN 10088-3 1.4401
7. Ball	Stainless Steel 316 S31 BS970
8. Ball Seal	Hostaflon
9. End Adaptor Seal	Virgin PTFE
10. Fasteners	Stainless Steel BS6105 A2/A4 Gr.70
11. Gland Packings	Virgin PTFE



Specifications

Size	Valve Size		Reduced Bore Size		Dimension						Torque		CV US GPM	Weight (kg)
	mm	in	mm	in	A	B	C	D	E	P.C.D	Nm	lbft		
DN15	15	½	11	¾	230	250	21	67	190	50	10	7	9	3
DN25	25	1	20	¾	230	250	32	96	190	60	23	17	30	5.5
DN40	40	1½	32	1¼	230	250	49	117	230	80	40	30	90	7
DN50	50	2	37	1½	230	250	56	129	230	100	62	46	138	7.2

How to Order

Part Number	Valve Size Diameter Nominal (DN)	Connection Type	Stem Length (mm)
CZFR30SB1E4S00	DN15	Butt Weld Schedule 10	230
CZFR30SSNE4S00		Socket Weld	
CZFR50SB1E4S00	DN25	Butt Weld Schedule 10	230
CZFR50SSNE4S00		Socket Weld	
CZFR70SB1E4S00	DN40	Butt Weld Schedule 10	230
CZFR70SSNE4S00		Socket Weld	
CZFR80SB1E4S00	DN50	Butt Weld Schedule 10	230
CZFR80SSNE4S00		Socket Weld	

Please contact us for other options.

Cryogenic Wafer Ball Valve

Reduced Bore
DN80 (3")

This uni-directional wafer type ball valve has been designed specifically for cryogenic applications. It is available with Butt Weld ends (for Stainless Steel) and threaded ends (for Bronze).

The flow co-efficient (CV) allows full flow of media from filling stations and portable delivery systems therefore no delay in filling time.

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Maximum Working Pressure (MWP)

Subject to end connections

Up to 34 bar (500 psi) at -196°C to +65°C

Features

- Precision investment cast body – smooth surface finish (for Stainless Steel Valves)
- One piece, anti-blowout stem
- Relief hole to prevent trapping of liquefied gases
- Designed to prevent incorrect, and hence dangerous, re-assembly after stripping for maintenance
- Removable centre section wafer pattern designed to suit industrial standard dimensions, allowing interchangeability in existing installations
- Valves can be supplied with pneumatic actuators fitted allowing fast, remote or automatic operation

Technical

- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

CE Marked according to the Pressure Equipment Directive



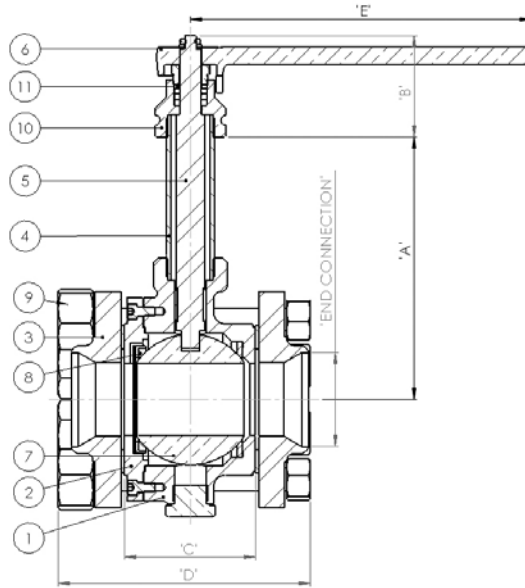
DN80 Stainless Steel Wafer Ball Valve with Butt Weld Ends



Centre Section



Sectioned View



Materials

	Stainless Steel	Bronze
1. Body	Stainless Steel ASTM A351 CF8M	Gunmetal BS EN 1982 CC491K
2. End Adaptors	Stainless Steel ASTM A351 CF8M	Gunmetal BS EN 1982 CC491K
3. Gland Housing	Stainless Steel ASTM A351 CF8M	Stainless Steel ASTM A351 CF8M
4. Extension Tube	Stainless Steel ASTM A312 TP304L	Stainless Steel ASTM A312 TP304L
5. Stem	Stainless Steel BS EN 10088-3 1.4401	Stainless Steel BS EN 10088-3 1.4401
6. Lever	Stainless Steel ASTM A351 CF8M	Stainless Steel ASTM A351 CF8M
7. Ball	Stainless Steel Series 300	Stainless Steel Series 300 / Brass
8. Retainer	HT Brass BS EN 12164 CW721R	HT Brass BS EN 12164 CW721R
9. Fasteners	Stainless Steel BS6105 A2/A4 Gr. 70	Stainless Steel BS6105 A2/A4 Gr. A4
10. Packings	Virgin PTFE	Virgin PTFE
11. Seal to Ball	Virgin PTFE	Virgin PTFE

Specifications

Size	Valve Size		Dimension					Torque		CV US GPM	Weight (kg)
			A	B	C	D	E	Nm	lbft		
	mm	in	mm	mm	mm	mm	mm				
DN80	80	3	230	80	110	215	300	102	75	300	30

How to Order

Part Number	Valve Size Diameter Nominal (DN)	Connection Type	Body Material	Stem Length (mm)
CZFRA0GTEE5A00	DN80	NPT	Bronze	230
CZFRA0GTAE5A00		BSP-PL	Bronze	
CZFRA0SB1E4S00		Butt Weld Schedule 10	Stainless Steel	

Please contact us for other options.

Cryogenic Actuated Bronze Ball Valve

Reduced Bore

DN15 - DN50 (1/2" - 2")

This Bronze uni-directional three-piece ball valve has been designed specifically for cryogenic applications. It is available with threaded ends.

The flow co-efficient (CV) allows full flow of media from filling stations and portable delivery systems therefore no delay in filling time.

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Maximum Working Pressure (MWP)

Subject to end connections

Up to 50 bar (725 psi) at -196°C to +65°C

Features

- Spring loaded gland seal giving low torque levels under both ambient and cryogenic conditions
- One piece, anti-blow-out stem
- Relief hole to prevent trapping of liquefied gases
- Designed to prevent incorrect, and hence dangerous, re-assembly after stripping for maintenance
- Removable centre section designed to industry standard dimensions, allowing interchangeability in existing installations

Technical

- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

CE Marked according to the Pressure Equipment Directive



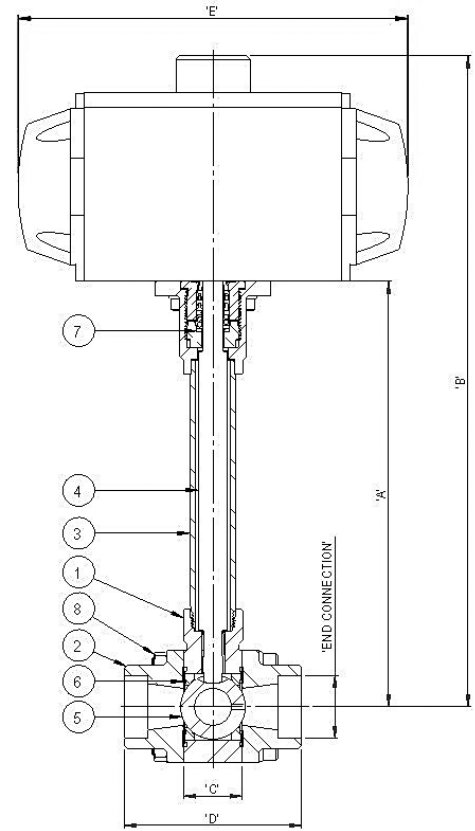
DN50 Actuated Bronze Ball Valve with NPT Threaded Ends



DN40 Actuated Bronze Ball Valve - Centre Section

Materials

	Bronze
1. Body	Gunmetal BS EN 1982 CC491K
2. End Adaptors	Gunmetal BS EN 1982 CC491K
3. Extension Tube	Stainless Steel ASTM A312 304L
4. Stem	Stainless Steel BS EN 10088-3 1.4401
5. Ball	Stainless Steel Series 300 / Brass
6. Seal	Virgin PTFE
7. Packings	Virgin PTFE
8. Fasteners	Stainless Steel BS6105 A2/A4 Gr.70



Specifications

Size	Valve Size		Reduced Bore Size		Dimension						Ball Valve Torque		CV US GPM	Weight (kg)
	mm	in	mm	in	A	B	C	D	E	P.C.D	Nm	lbft		
DN15	15	½	10	¾	230	352	21	67	210	45	10	7	9	4.7
DN25	25	1	20	¾	230	352	32	96	210	63	23	17	30	5.5
DN40	40	1½	30	1¼	230	405	49	117	315	81	40	30	90	15.5
DN50	50	2	40	1½	230	405	56	129	315	95	62	46	138	16

How to Order

Part Number	Valve Size Diameter Nominal (DN)	Connection Type	Stem Length (mm)
CZFR30GTEE4BAM	DN15	NPT	230
CZFR30GTAE4BAM		BSP-PL	
CZFR50GTEE4BAM	DN25	NPT	230
CZFR50GTAE4BAM		BSP-PL	
CZFR70GTEE4BAM	DN40	NPT	230
CZFR70GTAE4BAM		BSP-PL	
CZFR80GTEE4BAM	DN50	NPT	230
CZFR80GTAE4BAM		BSP-PL	

Please contact us for other options.

Cryogenic Actuated Stainless Steel Ball Valve

Reduced Bore

DN15 - DN50 (1/2" - 2")

This Stainless Steel uni-directional three-piece ball valve has been designed specifically for cryogenic applications. It is available with Socket Weld and Butt Weld ends.

The flow co-efficient (CV) allows full flow of media from filling stations and portable delivery systems therefore no delay in filling time.

All valves are degreased for oxygen duty, assembled in clean room conditions and pressure tested prior to dispatch.

Maximum Working Pressure (MWP)

Subject to end connections

Up to 50 bar (725 psi) at -196°C to +65°C

Features

- Spring loaded gland seal giving low torque levels under both ambient and cryogenic conditions
- Precision investment cast body – smooth surface finish
- One piece, anti-blow-out stem
- Relief hole to prevent trapping of liquefied gases
- Designed to prevent incorrect, and hence dangerous, re-assembly after stripping for maintenance
- Removable centre section designed to industry standard dimensions, allowing interchangeability in existing installations

Technical

- Designed and engineered for use with Group 1 gases.
- Designed and manufactured in accordance with ASTM B31.1, BS EN 1626 and BS ISO 21011
- Optional full material traceability backed by BS EN 10204 3.1/3.2 certification.

CE Marked according to the Pressure Equipment Directive



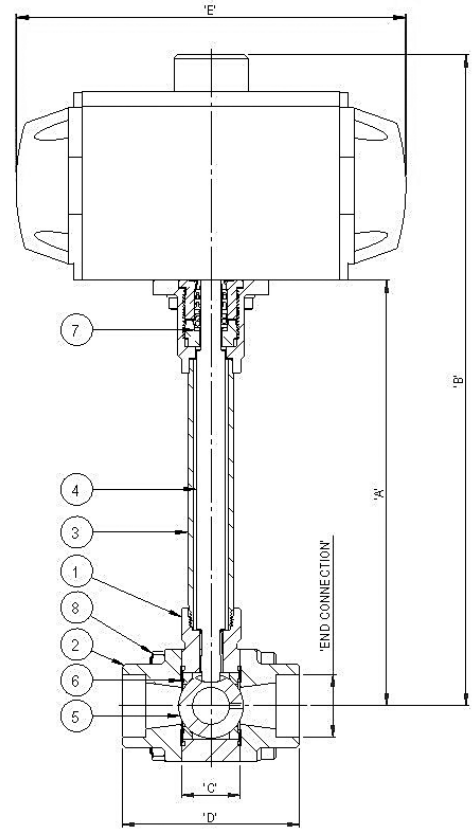
DN25 Actuated Stainless Steel Ball Valve – Reduced Bore with Butt Weld Ends



DN25 Actuated Stainless Steel Ball Valve - Centre Section

Materials

	Stainless Steel
1. Body	Stainless Steel ASTM A351 CF8M
2. End Adaptors	Stainless Steel ASTM A351 CF8M
3. Extension Tube	Stainless Steel ASTM A312 TP304L
4. Stem	Stainless Steel BS EN 10088-3 1.4401
5. Ball	Stainless Steel Series 300
6. Seal	Virgin PTFE
7. Packings	Virgin PTFE
8. Fasteners	Stainless Steel BS6105 A2/A4 Gr.70



Specifications

Size	Valve Size		Reduced Bore Size		Dimension						Ball Valve Torque		CV US GPM	Weight (kg)
	mm	in	mm	in	A	B	C	D	E	P.C.D	Nm	lbft		
DN15	15	½	10	¾	230	352	21	67	210	45	10	7	9	4.7
DN25	25	1	20	¾	230	352	32	96	210	63	23	17	30	5.5
DN40	40	1½	30	1¼	230	405	49	117	315	81	40	30	90	15.5
DN50	50	2	40	1½	230	405	56	129	315	95	62	46	138	16

How to Order

Part Number	Valve Size Diameter Nominal (DN)	Connection Type	Stem Length (mm)
CZFR30SB1E4SAM	DN15	Butt Weld Schedule 10	230
CZFR30SSNE4SAM		Socket Weld	
CZFR50SB1E4SAM	DN25	Butt Weld Schedule 10	230
CZFR50SSNE4SAM		Socket Weld	
CZFR70SB1E4SAM	DN40	Butt Weld Schedule 10	230
CZFR70SSNE4SAM		Socket Weld	
CZFR80SB1E4SAM	DN50	Butt Weld Schedule 10	230
CZFR80SSNE4SAM		Socket Weld	

Please contact us for other options.