

## CRYOGENIC STAINLESS STEEL THREE PIECE BALL VALVE

Reduced Bore  
DN15 – DN50 (1/2" – 2")

Bestobell Valves is a world leader in the design and manufacture of cryogenic valves, recognised globally for product quality and innovation. Our valves are used with numerous cryogenic liquefied gases including oxygen, carbon dioxide, nitrogen, liquid natural gas (LNG) and argon Bestobell Valves manufactures for a wide range of applications and in a comprehensive range of materials.

### Description

A stainless steel three-piece ball valve designed specifically for cryogenic applications. Available with socket weld and butt weld ends.

All valves are degreased for oxygen duty, assembled in clean room conditions, and sealed in robust polythene bags prior to despatch.

### Maximum Working Pressure

(Subject to End Connections)

50bar (725 psi) at -196°C to +65°C  
Body strength test 1.x MWP=75 bar (1090 psi)



### Features and Benefits

- 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.
- Suitable for retro fitting of electric, or pneumatic actuators. Valves can be supplied with actuators fitted allowing fast, remote automatic operation
- Fast easy maintenance of PTFE components

### Technical Data

Manual operated ball valves size range DN15, DN25, DN40 and DN50 reduced bore.

Actuated valves available.

Designed and engineered for use with O<sub>2</sub>, N<sub>2</sub>, Ar, CO<sub>2</sub>, He, Kr, Ne, H<sub>2</sub>, C<sub>2</sub>H<sub>4</sub> and N<sub>2</sub>O service.

ISO 9001 accreditation – design and manufacture to ASTM B31.1 and BSEN 1626

Optional full material traceability backed by BSEN 10204 3.1/3.2 certification

CE Marking according to Pressure Equipment Directive 97/23/EC

TT Marking to Directive 99/36/EC only on written request complete with purchase order

For other options please contact us

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### Materials

Body	ASTM A351 CF8M
End Adaptors	ASTM A351 CF8M
Gland Housing	ASTM A351 CF8M
Lever	ASTM A351 CF8M
Extension Tube	ASTM A269 304L
Stem	ASTM A276 316
Ball Stainless	Stainless Steel Series 300
Retainer	BSEN 12164 CW721R
Gland Follower	BSEN 12164 CW721R
Seal to Ball	PTFE
Packings	PTFE
Fasteners	Stainless Steel (A2) BS6105 A4 GR80

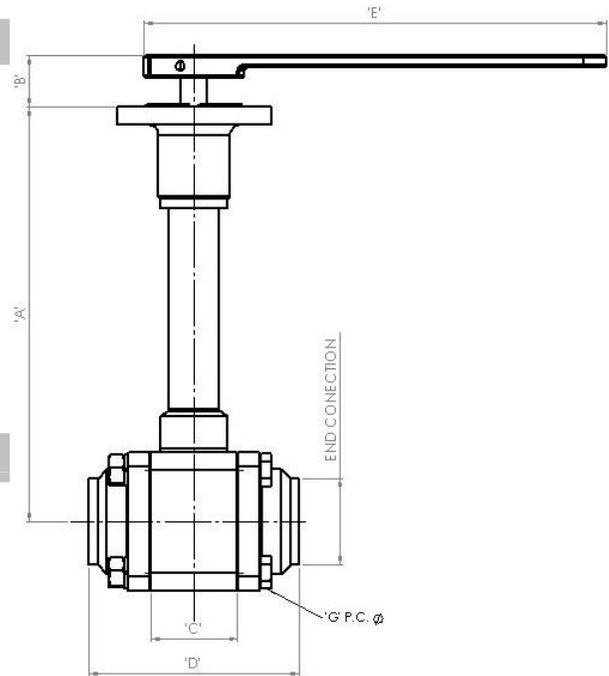
### Valve Selection Data

There are two steps to selecting the complete part number for a valve;

1. First select the part number for the valve size from the Specifications section below, "CZFR -- +"
2. Then select the end connection code from the table below

Example: 25mm reduced bore ball valve with BW SCH.10 connections. Complete part number = CZFR50SB1E4S00

	End connection
BW SCH.10	SB1E4S00
SOCKET WELD	SSNE4S00



### Specifications

Part No.	Valve Size		Reduced bore size		Dimension							Torque		CV USGPM
	mm	in	mm	In	A mm	B mm	C mm	D mm	E mm	F mm	P.C.D mm	Nm	lbft	
CZFR30+	15	1/2	11	7/16	230	62.0	20.6	66.0	170.0	90.0	45	9.5	7.0	9
CZFR50+	25	1	20	3/4	230	32.0	31.7	96.0	170.0	-	63	23.0	17.0	30
CZFR70+	40	1 1/2	32	1 1/4	230	71.0	48.4	116.0	170.0	-	80.8	40.0	30.0	90
CZFR80+	50	2	37	1 1/2	230	76.0	56.4	128.0	170.0	-	95	62.0	46.0	138

All dimensions / weights are approximate

The information on this data sheet is accurate to the best of Bestobell's knowledge, however we reserve the right to alter the product specification at any time. For any specific updated detail, please contact us.