

## Product Overview

### **Bestobell Valves**

- cryogenic and LNG
- standard bronze
- birflo

... your specialist valve partner





# Product Overview

## The Company

Bestobell Valves is a world leader in the design and manufacture of cryogenic valves, recognized globally for product quality and innovation. Our valves are used with numerous cryogenic gases including oxygen, carbon dioxide, nitrogen, liquid natural gas (LNG) and argon. The applications supported by our cryogenic valves include static storage tanks, trailers, environmental control, management of medical gases used in hospitals, through to gas handling systems on LNG ships. In addition, Bestobell Valves supplies a complete portfolio of standard bronze valves and fluid control technology from the Birflo range, which includes Truflo, Constaflor and FluidMix. These are used in flow control systems for food/beverage plants, pharmaceutical production facilities and cooling plants used for defence weapons systems.

## Quality

Bestobell Valves manufactures for a wide range of applications and in a comprehensive range of materials. In addition to our manufacturing capability, Bestobell Valves also has full design capability. Our highly skilled engineering team is always available to provide users and engineering contractors with the solution to difficult or unusual valve applications.

Bestobell's range of products fully complies with the pressure equipment directive (PED) 97/23/EC.

Bestobell's notified body is TUV.

Bestobell is ISO 9001 2000 approved.

## Useful Conversion Charts






Gases conversion table				
GAS	*m <sup>3</sup> gas per kilogram	*m <sup>3</sup> gas per litre of liquid	Boiling point °C	Relative density
Oxygen	0.738	0.842	-183	1.1
Nitrogen	0.844	0.682	-196	1.0
Carbon Dioxide	0.535	-	-78#	1.5
Argon	0.591	0.822	-186	1.4
Air	0.816	-	-194	1.0
Helium	5.913	0.737	-269	0.14
Hydrogen	11.73	0.831	-253	0.07
LPG (85% Propane)	0.531	0.271	-42	2.0
Acetylene	0.901	-	-75	0.9
Sulphur Dioxide	0.366	0.534	-10	2.3
Nitrous Oxide	0.534	0.654	-89	1.5
*at 15° C and 101.33 kPa			# dry ice (solid)	

Bar to psi	Divide psi figure by 14.5
Bar to kg per cm <sup>2</sup>	Bar multiplied by 1.0197
mbar to kpa	mbar multiplied x 0.1
kpa to bar	Divide by 100
mpa to bar	Multiply by 10
kg per cm <sup>2</sup> to bar	Multiply by 0.98
1 UK gallon	4.546 litres
1 UK gallon	1.201 US gallon
1 US gallon	3.785 litres
1 kilogram	2.2 lb



# air separation transport & storage medical









	CRYOGENIC				
Valve type	Globe	Gate	Check	Ball lever, pneumatic and fire block	Strainers
					

<b>Size range</b>	DN6-DN200 1/4" - 8"	DN50-DN200 2" - 8"	DN6-DN80 1/4" - 3"	DN15-DN80 1/2" - 3"	DN10-DN65 3/8" - 2 1/2"
<b>Pressure rating</b>	CL150, CL300, PN45, PN50	CL150, CL300, PN45, PN50	CL150, CL300, PN45, PN50	DN15-50 PN50 DN65 & 80 34 BAR	DN10 - 25 - PN50 DN40 - 65 - PN25
<b>End connections</b>	Screwed, flanged, SW/BW, stubs	Screwed, flanged, SW/BW, stubs	Screwed, flanged, SW/BW, stubs	Screwed, SW/BW	Screwed, SW, stubs
<b>Configurations</b>	Bolted bonnet, union bonnet, cone seat. Actuated/manual. Extended and non- extended stem	Bronze: Bolted or union bonnet. Stainless steel: Full Bore. Removable body seat to eliminate risk of damage during installation. Actuated/manual.	Lift - bolted bonnet, union bonnet. Swing - screwed/bolted bonnet	3-piece bodied as standard up to DN80/3". DN65/80 (2 1/2"/3") wafer type also. RB as standard, FB & pneumatic actuator on request. Fire block/emergency shut off	Y-type, screwed bonnet
<b>Materials of construction</b>	Bronze, gunmetal, austenitic stainless steels	Bronze, gunmetal, austenitic stainless steels	Bronze, gunmetal, austenitic stainless steels	Bronze, gunmetal, austenitic stainless steels	Bronze, gunmetal



# environmental


liquid natural gas  
food & beverage

CRYOGENIC					
Safety relief	Diverter assemblies	Cryoregulator (PBU & economiser)	Manifold fill assemblies	ASPRO (automatic double block & bleed)	Emergency shut off
					

DN6-DN20 $\frac{1}{4}$ " - $\frac{3}{4}$ "	DN20-DN50 $\frac{3}{4}$ " - 2"	DN15 $\frac{1}{2}$ "	DN25 & DN40 1" & 1 $\frac{1}{2}$ "	DN6 & DN20 $\frac{1}{4}$ " & $\frac{3}{4}$ "	Gate - DN65 & 80 2 $\frac{1}{2}$ " & 3" Ball - DN25 - 80 1" - 3"
Up to 44 BAR	Up to 50 BAR	Up to 50 BAR	Up to 50 BAR	Up to 410 BAR	Up to 40 BAR. 150 psi max actuator inlet pressure
Inlet screwed male, outlet screwed female	Please contact technical department	Please contact technical department	Please contact technical department	Female screwed, socket weld	SW/BW
Angle relief, thermal relief, in-line relief	T-port as standard. Available as complete assembly with safety valves & bursting discs	1. PBU & economiser & ball check 2. PBU only (no economiser) 3. As item 1 + angle check	Internal check valve and/or strainer optional	Please contact technical department	Gate - full Bore. Removable body seat to eliminate risk of damage during installation
Bronze, gunmetal. Austenitic stainless steels on request	Bronze, gunmetal	Bronze, gunmetal. Austenitic stainless steels on request	Bronze, gunmetal	Stainless steel	Austenitic stainless steel, bronze



## Bestobell Valves Product Overview

LNG	STANDARD BRONZE	BIRFLO		
Fire safe globe	Standard bronze (Utility valves)	Constafo (flow control)	Truflo switch (flow switch)	Fluid mix
				

DN15-DN200 1/2" – 8"	DN6-DN80 1/4" – 3"	DN6-DN50 1/4" – 2"	DN6-DN32 1/4" – 1 1/4"	DN15-DN32 1/2" – 1 1/4"
Up to 50 BAR	Up to 40 BAR	Up to 13.8 BAR 1/8-100 gpm	Up to 10.4 BAR. Flow range 1/8-25 gpm	Inlet – 50-160 psi
SW/BW/flanged	Screwed, flanged (imperial & metric)	Female screwed	Female screwed	Inlet 1/2" BSP TR (with Constafo) 3/4" BSP TR (no Constafo) Outlet 1 1/4" BSP TR male
Metal to metal seat, fire-safe design. Extended and non-extended stem	Types – globe/gate/check/strainer. Full details on request	Constafo DN6-15 (1/4" - 1/2"); Multi-Constafo DN20-50 (3/4" - 2") Commercial & Marine types available	Commercial - fresh water Industrial – demineralised water Marine – MOD & NATO	With or without Constafo valve
Austenitic stainless steel	Gunmetal, bronze	Gunmetal, bronze, EPDM, silicon. Stainless steel – limited range	Gunmetal, bronze, EPDM, silicon, Nitrile.	Please contact technical department



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