

GB SERIES High Purity Brass Bellows Valves



PRODUCT APPLICATIONS

This GB (bellows design) brass valve series is intended for bulk gas distribution service where containment, cleanliness and purity are of utmost importance. Applications for this valve include:

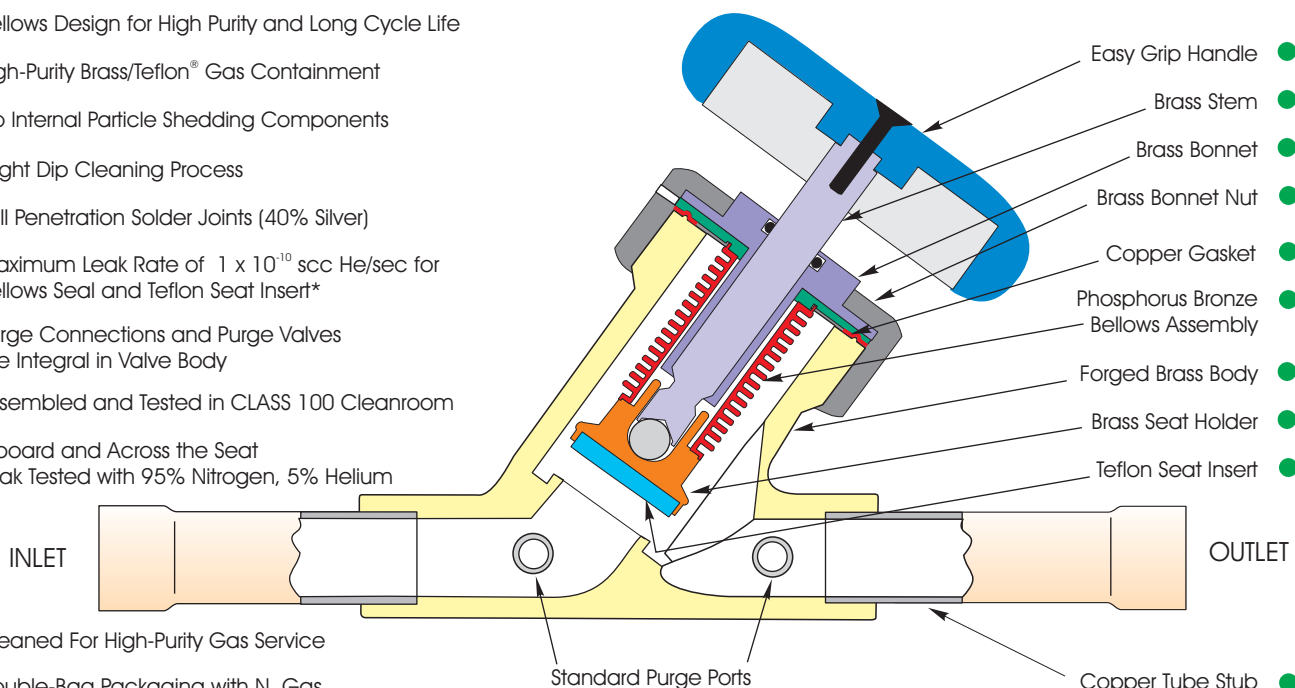
- High-purity gas distribution system control valves
- High-purity gas valves for point-of-use service
- Superior containment and cleanliness for your most critical valve applications
- Clean dry air and inert gas applications

PRODUCT FEATURES

- ▶ Bellows Design for High Purity and Long Cycle Life
- ▶ High-Purity Brass/Teflon® Gas Containment
- ▶ No Internal Particle Shedding Components
- ▶ Bright Dip Cleaning Process
- ▶ Full Penetration Solder Joints (40% Silver)
- ▶ Maximum Leak Rate of 1×10^{-10} scc He/sec for Bellows Seal and Teflon Seat Insert*
- ▶ Purge Connections and Purge Valves are Integral in Valve Body
- ▶ Assembled and Tested in CLASS 100 Cleanroom
- ▶ Inboard and Across the Seat Leak Tested with 95% Nitrogen, 5% Helium

- ▶ Cleaned For High-Purity Gas Service
- ▶ Double-Bag Packaging with N₂ Gas Environment Supplied from a Liquid Source

CONSTRUCTION MATERIALS



GB 875

*Excluding Permeation of Teflon

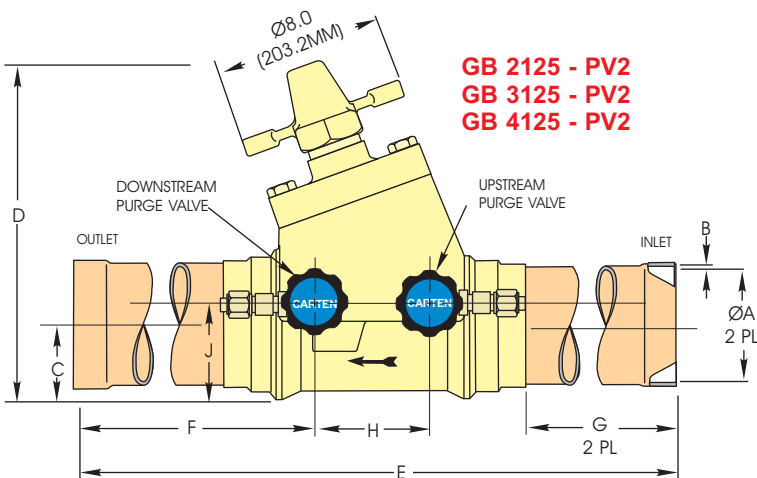
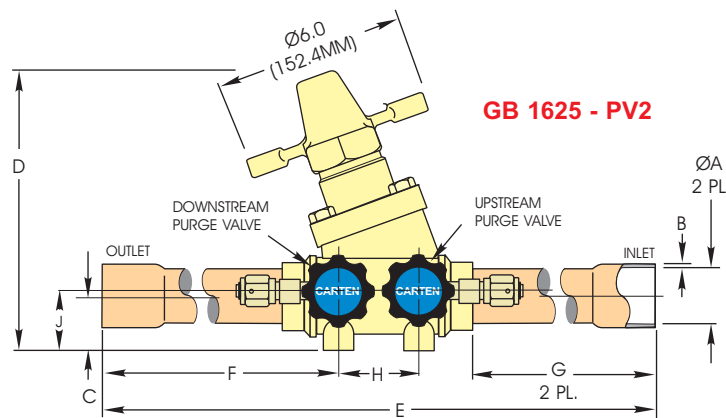
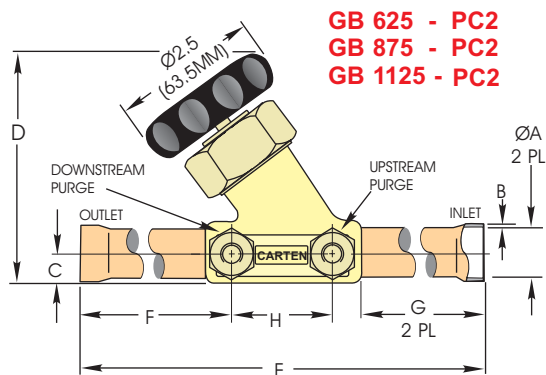
GB SERIES - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	Copper/Brass, Phosphorus Bronze Teflon, Silver Solder
	Non-Wetted Areas	Brass, Stainless Steel
MAXIMUM OPERATING PRESSURE	GB Series	Vacuum to 250 psi. (17 BAR)
MAXIMUM OPERATING TEMPERATURE	GB Series	180° F (82° C)
FLOW COEFFICIENT (C _v)	GB 625	3.28
	GB 875	6.25
	GB 1125	10.68
	GB 1375	21.69
	GB 1625	23.63
	GB 2125	32.90
	GB 2625	103.00
	GB 3125	103.00
	GB 4125	103.00

HELIUM LEAK TEST	Inboard/across the seat	1x10 ⁻¹⁰ scc/s He max.	Rated
		1x10 ⁻⁶ scc/s He max.	Std. Production
	Leak test performed with 5% helium and 95% nitrogen		
CLEANLINESS	Assembled and tested in CLASS 100 cleanroom. Double-bag packaging (6 mil polyethylene inner and outer bag) with N ₂ gas environment supplied from a liquid source.		
OPTIONS	Single purge valve/connection Tube extension length or fittings Plain or swaged copper tube extensions Stainless steel tube extensions		

Specifications are subject to change without notice.
Teflon is a registered trademark of the Dupont Company

GB SERIES - Valve Dimensions



CATALOG NO.	A*	B*	C	D	E	F	G	H	J	Body Width	Approx. Weight
GB 625	0.629	0.040	0.406 (10.3mm)	3.88 (98.5mm)	9.60 (243.8mm)	3.80 (96.5mm)	3.05 (77.4mm)	2.00 (50.8mm)	N/A	1.19 (30.2mm)	1.75 Lb .79 Kg
GB 875	0.879	0.045	0.562 (14.2mm)	4.17 (105.9mm)	11.63 (295.4mm)	4.81 (122.2mm)	3.94 (100.1mm)	2.00 (50.8mm)	N/A	1.50 (38.1mm)	2.5 Lb 1.13Kg
GB 1125	1.130	0.050	0.687 (17.4mm)	5.17 (131.3mm)	15.76 (400.3mm)	6.88 (174.7mm)	5.38 (136.6mm)	2.00 (50.8mm)	N/A	1.92 (48.7mm)	4.25 Lb 1.92 Kg
GB 1625	1.630	0.060	1.312 (33.3mm)	7.00 (177.8mm)	18.50 (469.9mm)	8.25 (209.5mm)	6.94 (176.2mm)	2.00 (50.8mm)	1.59 (40.4mm)	1.43 (36.3mm)	7.00 Lb 3.17 Kg
GB 2125	2.130	0.070	1.687 (42.8mm)	8.00 (203.2mm)	19.38 (492.2mm)	8.31 (211.0mm)	6.50 (165.1mm)	2.75 (69.8mm)	2.16 (54.9mm)	1.87 (47.5mm)	14.00 Lb 6.35 Kg
GB 3125	3.130	0.090	2.125 (53.9mm)	10.00 (254.0mm)	21.00 (533.4mm)	8.86 (225mm)	6.13 (155.7mm)	3.69 (93.7mm)	2.53 (64.3mm)	2.50 (63.5mm)	32.00 Lb 14.52 Kg
GB 4125	4.130	0.110	2.125 (53.9mm)	10.00 (254.0mm)	23.88 (606.5mm)	10.23 (259.8mm)	6.63 (168.4mm)	3.69 (93.7mm)	2.53 (64.3mm)	2.50 (63.5mm)	40.00 Lb 18.16 Kg

* Metric tube sizes and wall thicknesses are available upon request

NOTE 1: All tolerances are ± 0.06 in. unless otherwise stated

NOTE 2: Dimensional drawings shown are for reference only. Please contact the manufacturer for customer drawings showing updated dimensions.

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