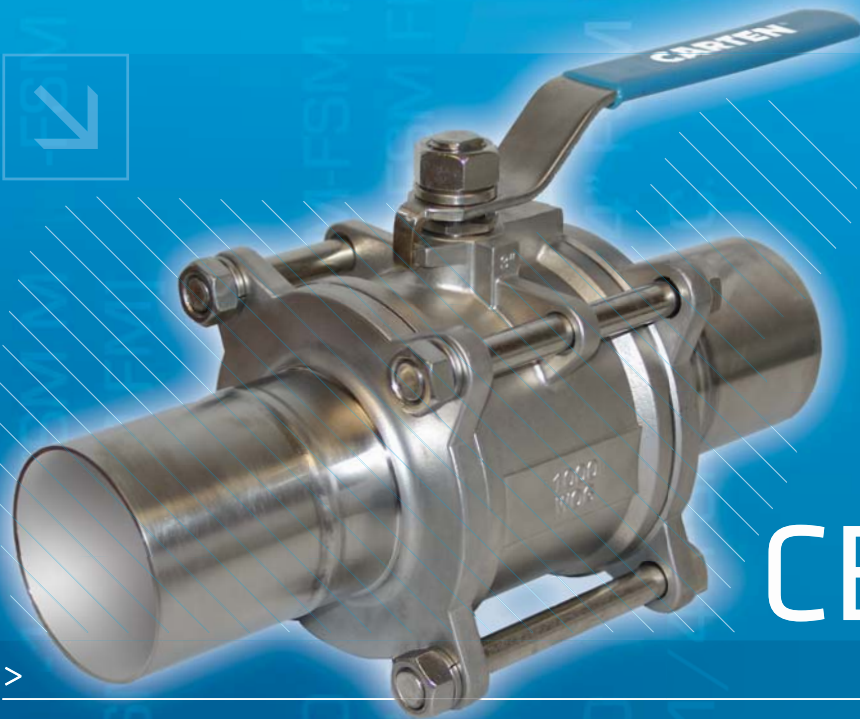


# CARTEN®

Ultra High Purity Valves

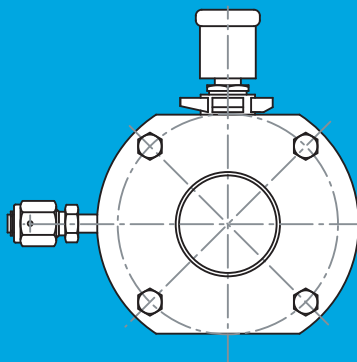
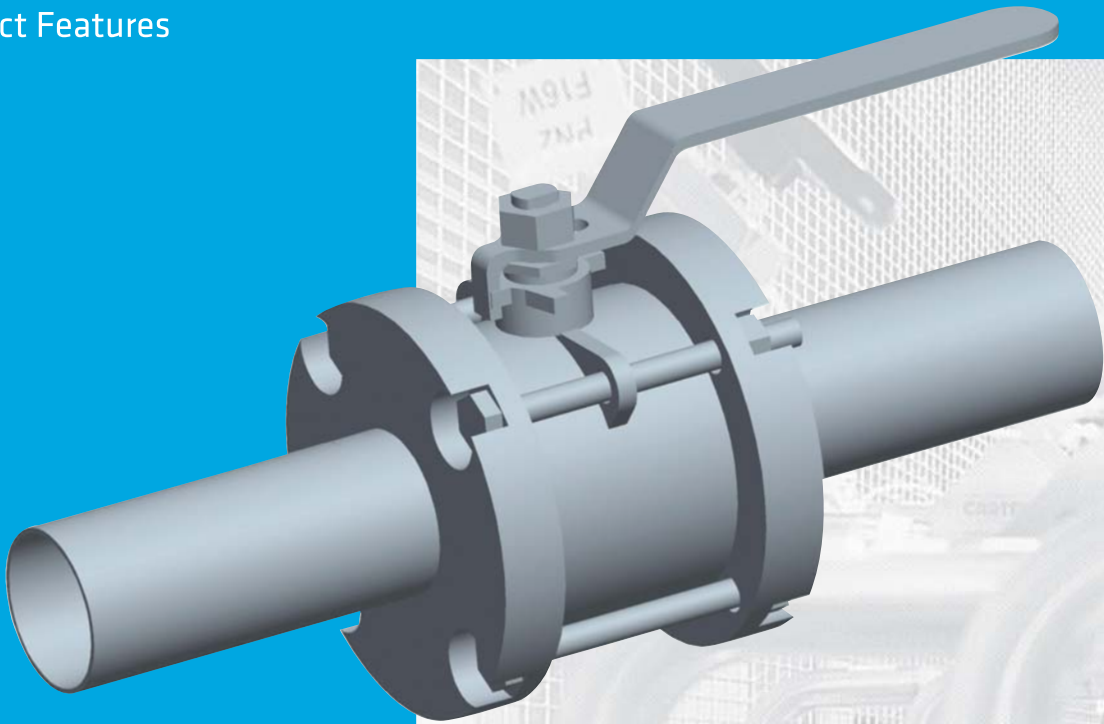


## CBV Series

HIGH PURITY BALL VALVES

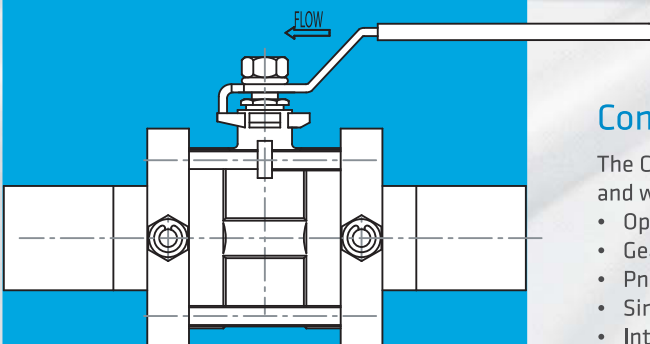


## Product Features



>

FRONT VIEW



>

SIDE VIEW

## Product Applications

The Carten CBV series stainless steel ball valves are intended for clean dry air (CDA), utility nitrogen, house nitrogen, instrument air (IA) and other non-process distribution services. The CBV series is a three piece, full bore, high flow design for bulk gas distribution requirements. The CBV series is the first choice in the semiconductor industry where containment, purity and integrity are critical to our customer needs. All CBV series ball valves are cleaned and DI water rinsed to ensure compliance to customer standards and specifications. CBV ball valves are assembled and helium leak tested in a class 10 cleanroom and double polyethylene bagged after product testing. Applications include...

- High purity gas service
- Sanitary and Biopharm service
- CDA, UN2, GN2, OFA and IA systems
- Vacuum exhaust systems
- Bulk chemical delivery systems

## Configurations and Options

The CBV series high purity ball valves are available in many configurations and with a variety of options or accessories including:

- Optional surface finish treatments (25Ra, 15Ra, 10Ra)
- Gear operation
- Pneumatically actuated operation
- Single and double horizontal cross
- Integrated purge port and purge valve options
- Integrated compression end connections
- Integrated NPT connections
- JIS tube extensions
- Customised tube lengths to customer needs
- Optional handle colours available





## CBV Series Specifications

Series	Size	Operating Pressure	Standard Operating Temperature	Operating Mode	Cv Value	Body Material	Body Seat	Stem Packing	Surface Finish	Rated Leak Spec
CBV250	1/4"	375PSI	0-150 °C	Lever Handle	1.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV375	3/8"	375PSI	0-150 °C	Lever Handle	2.50	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV500	1/2"	375PSI	0-150 °C	Lever Handle	8.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV750	3/4"	375PSI	0-150 °C	Lever Handle	20.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV1000	1"	375PSI	0-150 °C	Lever Handle	34.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV1500	1 1/2"	375PSI	0-150 °C	Lever Handle	130.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV2000	2"	375PSI	0-150 °C	Lever Handle	480.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV2500	2 1/2"	375PSI	0-150 °C	Lever Handle	500.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV3000	3"	375PSI	0-150 °C	Lever Handle	1250.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV4000	4"	375PSI	0-150 °C	Lever Handle	2500.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec
CBV6000**	6"	375PSI	0-150 °C	Lever Handle	2600.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 <sup>-7</sup> scc/sec

\* CBV6000 type ball valve is a 4" full bore with adapters to 6" tube connections.

\*\* Standard production leak rate is 1 x 10<sup>-6</sup> scc/sec He max



## Carten CBV Descriptions

Carten Series	Size	Inlet Connection	Outlet Connection	Purge Port Type	Actuator Designator	Surface Finish Option
CBV	250 (1/4")	1/4" TE = 035	1/4" TE = 035	PC1	N.C.	30Ra BA (Std.)
CBVA	375 (3/8")	3/8" TE = 035	3/8" TE = 035	PC2	N.O.	15Ra Non EP
	500 (1/2")	1/2" TE = 049	1/2" TE = 049	PC3		20Ra Non EP
	750 (3/4")	3/4" TE = 065	3/4" TE = 065	PV1		25Ra Non EP
	1000 (1")	1" = 065	1" = 065	PV2		
	1500 (1 1/2")	1 1/2" = 065	1 1/2" = 065	PV3		
	2000 (2")	2" = 065	2" = 065	PC(FM)		
	2500 (2 1/2")	2 1/2" = 065	2 1/2" = 065	PBV1		
	3000 (3")	3" = 065	3" = 065	PBV2		
	4000 (4")	4" = 083	4" = 083	PBV3		
	6000 (6")	6" = 109	6" = 109			
		1/4" FSM M	1/4" FSM M			
		1/4" FSM FM	1/4" FSM FM			
		3/8" FSM M	3/8" FSM M			
		3/8" FSM FM	3/8" FSM FM			
		1/2" FSM M	1/2" FSM M			
		1/2" FSM FM	1/2" FSM FM			
		3/4" FSM M	3/4" FSM M			
		3/4" FSM FM	3/4" FSM FM			
		1" FSM M	1" FSM M			
		1" FSM M	1" FSM M			
		1/4" C/LOK	1/4" C/LOK			
		3/8" C/LOK	3/8" C/LOK			
		1/2" C/LOK	1/2" C/LOK			
		3/4" C/LOK	3/4" C/LOK			
		1" C/LOK	1" C/LOK			



## Examples

CBV | 1000 | -065 | -1" C/LOK | -PC3 | -PBV1 = **[CBV1000-065-1" C/LOK-PC3-PBV1]**

1" manual full bore ball valve, 2-Way straight type, 1" OD x .065" tube stub connections on the inlet, 1" compression connection on the outlet, 1/4" FSM male capped purge connection on the upstream side, 1/4" purge ball valve on the downstream side.

CBV | 500 | -1/2" FSM M | -1/2" C/LOK | -PC1 = **[CBV500-1/2" FSM M-1/2" C/LOK-PC1]**

1/2" manual full bore ball valve, 2-Way straight type, 1/2" FSM male fixed connection on the inlet, 1/2" compression connection on the outlet, 1/4" FSM male capped purge connection on the downstream side.

CBVA | 1500 | -065 | -PC2 | -N.C. = **[CBVA1500-065-PC2-N.C.]**

1 1/2" pneumatically operated full bore ball valve, 2-Way straight type, 1 1/2" OD x .065" tube stub connections on the inlet and outlet, 1/4" FSM male capped purge connections on the upstream and downstream side, normally closed type actuator.

\* Specifications are subject to change without notice. Please contact Carten for full specification details at the time of enquiry.

\*\* It is the responsibility of the systems design engineer to ensure material selection and system compatibility with the systems requirements.

# **CARTEN®**

Ultra High Purity Valves

## **IRELAND**

Carten Controls Ltd  
Unit 609 Waterford Industrial Park  
Waterford, Ireland  
Tel: + 353-51-355436  
Fax: + 353-51-378054  
Email: [sales@cartencontrols.com](mailto:sales@cartencontrols.com)  
Web: [www.cartencontrols.com](http://www.cartencontrols.com)

## **USA**

Carten Controls  
604 West Johnson Avenue  
Cheshire, CT. 06410  
USA  
Tel: +1 203-699-2100  
Fax: +1 203-699-2179  
Email: [sales@cartenUS.com](mailto:sales@cartenUS.com)  
Web: [www.cartenUS.com](http://www.cartenUS.com)



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