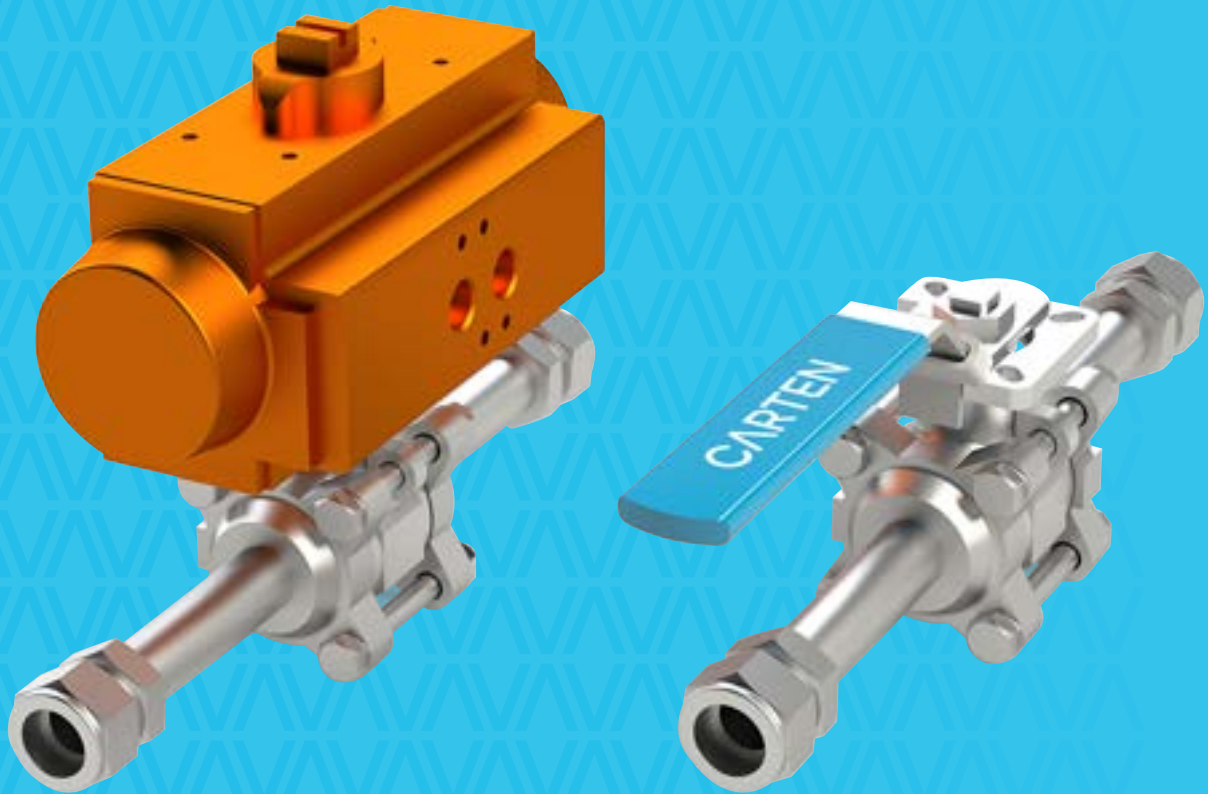


CARTEN

FLOW SOLUTIONS - **WE GO BEYOND**

INTRODUCING CARTEN'S CBV SERIES HIGH PURITY BALL VALVES



CBV Series

Carten Ball Valves

Semiconductor standards applied to ball valves for the market, C/LOK connectivity and semiconductor grade processing and analysis ensures suitability for specified applications.

Key Features

Available in line sizes up to 6"

PTFE internal and external seals

Minimal dead space for POC block configurations

Multiple block orientations and configurations (DBV etc)

Typical Applications

Vacuum exhaust, CFOS compatibility, low purity gas distribution, low purity laterals POC (low purity), shut-off functionality for gas distribution and high volume abatement.

Key Specifications

Materials of Construction	Cleanliness	Specifications	Options
316L CF8M Body Material	Manufactured in Class 10 Cleanroom	Leak tested using Mass spectrometer 1×10^{-6} mbar.l/s	Manual or pneumatic with 4/20mA switching / signalling automation
PTFE Body seat	30 Ra BA as standard	30Ra micro-inch surface roughness	TFM 1600 internal / external seals for lower temp to -40°C
RTFE stem packing	Welded to ensure ASTM A269 connection tubing	Pressure tested 100% production control	Multiple block orientations and configurations (SCBV etc)
	Cleaned using 18.2MΩ.cm DI water	375 PSI operating pressure	Purge valve possible

CBV Series Specifications

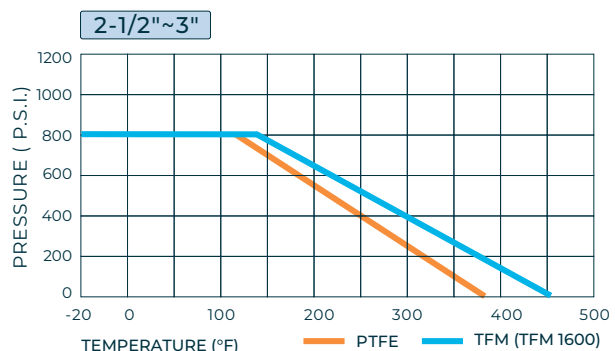
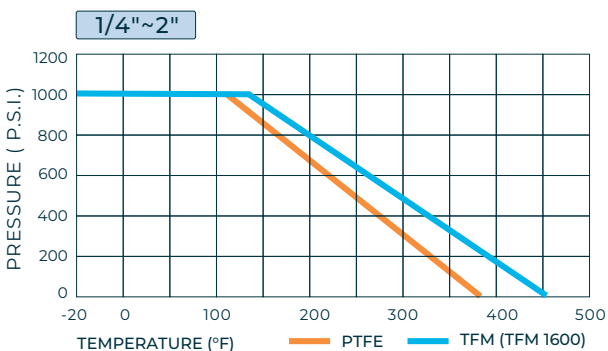
Series	Size	Operating Pressure	Standard *** Operating Temperature	Operating Mode	Cv Value	Body Material	Body Seat	Stem Packing	Surface Finish	Rated Leak Spec
CBV 250	1/4"	375 PSI	0-150 °C	Lever Handle	1.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 375	3/8"	375 PSI	0-150 °C	Lever Handle	2.50	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 500	1/2"	375 PSI	0-150 °C	Lever Handle	8.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 750	3/4"	375 PSI	0-150 °C	Lever Handle	20.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 1000	1"	375 PSI	0-150 °C	Lever Handle	34.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 1500	1 1/2"	375 PSI	0-150 °C	Lever Handle	130.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 2000	2"	375 PSI	0-150 °C	Lever Handle	480.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 2500	2 1/2"	375 PSI	0-150 °C	Lever Handle	500.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 3000	3"	375 PSI	0-150 °C	Lever Handle	1250.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 4000	4"	375 PSI	0-150 °C	Lever Handle	2500.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC
CBV 6000*	6"	375 PSI	0-150 °C	Lever Handle	2600.00	316 CF8M	PTFE	RTFE	30Ra BA	1 x 10 ⁻⁶ SCC/SEC

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

** Standard production leak rate is 1 x 10⁻⁶ scc/sec He max

*** Optional for lower temp -40 to 150°C with TFM SEALS

PRESSURE / TEMPERATURE



Order Information

Sample: CBV 1000 - 065 - PC2 - BLUE

CBV 1000 - 065 - Blank - PC2 - Blue

Manual Version - 1" - 1" TE = 065 - 1" TE = 065 - 1/4" Up and Downstream Purge Connection - Blue (with white text)

Series	Size	Inlet Connection	Outlet Connection ¹	Purge Type	Handle Colour ²	Actuator Designator ³	Actuator Accessories ³
CBV – Manual Version	250 (1/4")	¼" TE = 035	¼" TE = 035	Blank - No Purge	Blue Handwheel	NC - Normally Closed	PS (Proximity Sensor)
CBVA – Pneumatic Air Operated Version	375 (3/8")	¼" FSM M	¼" FSM M	PC1 - 1/4" Downstream Purge Connection		NO - Normally Open	PSEx (Explosion Proof Proximity Sensor)
	500 (1/2")	¼" FSM FM	¼" FSM FM	PC2 - 1/4" Up and Downstream Purge Connection			
	750 (3/4")	1/4" C/LOK	1/4" C/LOK	PC3 - 1/4" Upstream Purge Connection			
	1000 (1")	3/8" TE = 035	3/8" TE = 035	PV1 - 1/4" Downstream Purge Valve			
	1500 (1.5")	3/8" FSM M	3/8" FSM M	PV2 - 1/4" Up and Downstream Purge Valve			
	2000 (2")	3/8" FSM FM	3/8" FSM FM	PV3 - 1/4" Upstream Purge Valve			
	3000 (3")	3/8" C/LOK	3/8" C/LOK	PC15 - 1/2" Downstream Purge Connection			
	4000 (4")	½" TE = 049	½" TE = 049	PC25 - 1/2" Upstream and Downstream Purge Connection			
	6000 (6")	½" FSM M(S)	½" FSM M(S)	PC35 - 1/2" Upstream Purge Connection			
		½" FSM FM	½" FSM FM	PV15 - 1/2" Downstream Purge Valve			
		½" C/LOK	½" C/LOK	PV25 - 1/2" Upstream and Downstream Purge Valve			
		¾" TE = 065	¾" TE = 065	PV35 - 1/2" Upstream Purge Valve			
		¾" FSM M(S)	¾" FSM M(S)				
		¾" FSM FM	¾" FSM FM				
		3/4" C/LOK	3/4" C/LOK				
		1" TE = 065	1" TE = 065				
		1" FSM M(S)	1" FSM M(S)				
		1" FSM FM	1" FSM FM				
		1" C/LOK	1" C/LOK				
		1.5" TE = 065	1.5" TE = 065				
		2" TE = 065	2" TE = 065				
		2.5" TE = 065	2.5" TE = 065				
		3" TE = 065	3" TE = 065				
		3" TE = 065	3" TE = 065				
		4" TE = 083	4" TE = 083				
		6" TE = 109	6" TE = 109				

FSM = Face Seal Metal - VCR® type connections
100% compatible with VCR® brand

¹ **Only Specify the Outlet connection when different from the Inlet connection**

Note: Different sized C/LOK Outlet connections available but cannot be larger than Inlet, different sized TE or FSM connections only available upon special request

² **Manual Version only** ³ **Actuated Version only**

CARTEN

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