

# UBC Series

Ultra-High Purity  
TEE Block Valves

**CARTEN**  
Ultra High Purity Valves



## PRODUCT APPLICATIONS

The compact UBC range of Carten TEE block bellows valves is intended for bulk gas distribution service where containment, cleanliness and purity are of the utmost importance. Our compact valve design minimises the space consideration over the conventional isolation valve and weld TEE option. Applications for this valve include :

- ✍ Ultra-high purity gas system distribution valves
- ✍ Point of use service or hook up applications
- ✍ Suitable for inert and most toxic gases

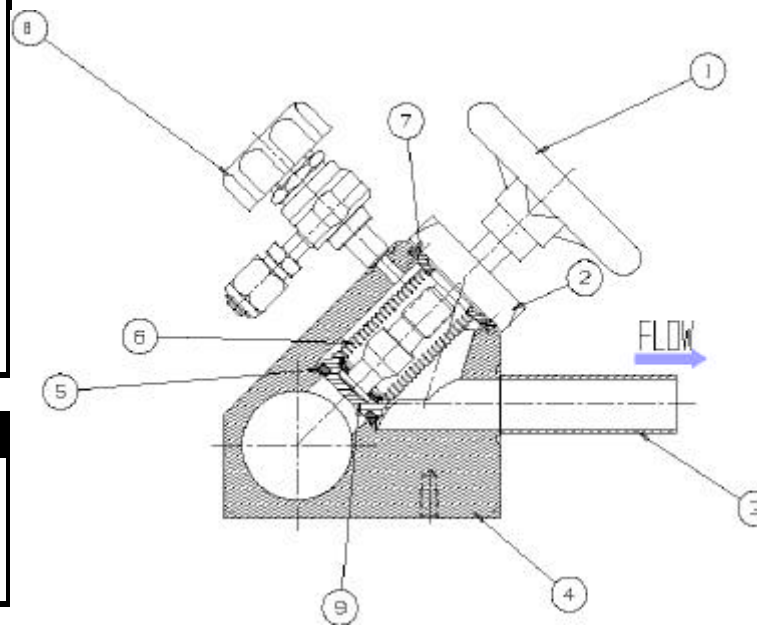
**▶ PRODUCT FEATURES**

- ▶ High Performance and Compact Design
- ▶ Ultra-High Purity Stainless Steel/CTFE Gas Containment
- ▶ Minimal CTFE volume in the seat design
- ▶ Inboard and across the seat leak tested with 100% helium
- ▶ Purge ports and purge valves are integral to the valve
- ▶ Electropolished to 10Ra on the internal wetted area
- ▶ Purged and Final packaged in CLASS 1 Cleanroom. Double-bag packaging with N<sub>2</sub> Gas supplied from liquid source

**● CONSTRUCTION MATERIALS**

- 316L Stainless Steel Body and Tube Extensions
- Kel-F (CTFE) Seat Insert
- Easy Grip Handle for Open/Close Operation

UBC Series – Cut Section View



## UBC Series - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	316 L Stainless Steel CTFE (Kel-F)
	Non-Wetted	316 Stainless Steel Nickel Foil Seal Gasket 303 Stainless Steel Viton 'O' Ring
TEMPERATURE RANGE	UBC Series	-22°F (-30°C) to 180°F (82°C)
OPERATING PRESSURE	UBC Series	Vacuum to 375psi (25Bar)
FLOW COEFFICIENT (Cv)	UBC1000-750	10.20
	UBC1500-750	10.20
	UBC1000-1000	14.30
	UBC1500-1000	14.30
	UBC2000-1000	14.30
	UBC2000-1500	16.60
	UBC3000-1000	14.30
UBC3000-1500	16.60	

HELIUM LEAK TEST DATA	Inboard/Across the Seat	1x10 <sup>-10</sup> scc/s He max. 1x10 <sup>-9</sup> scc/s He max.	Rated Std. Production
	Helium Leak Test Performed with 100% Helium		
CLEANLINESS/ PACKAGING	Assembled and tested in CLASS 10 cleanroom. Purge and final packaged in Class 1 cleanroom. Double-bag packaging (2 mil nylon inner bag, 6 mil polyethylene outer bag) with N <sub>2</sub> gas environment supplied from liquid source.		
STANDARD FINISH	Electropolished to 10 Ra (0.25 µm) on all wetted surfaces		
OPTIONS	Surface Finish Options: 5Ra, 15Ra, 20Ra, 30Ra, etc. Particle, Moisture, THC and O <sub>2</sub> Testing Available Handwheel Colour Options Available on Request Air Actuated Operation Available on All Sizes Optional Branch Connections – VCR, Tube Stub, DW Cap Optional Seat Material Available for Higher Temperature Applications		

Specifications subject to change without notice

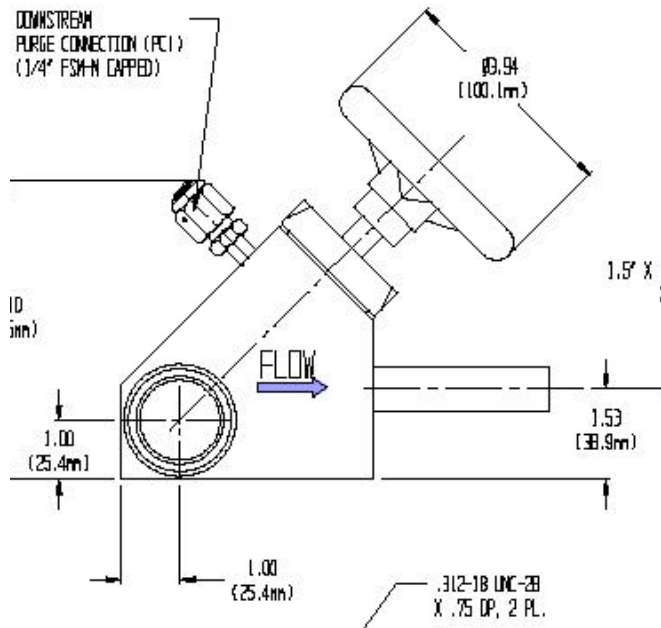
### Component Selection

The total system design must be considered when selecting a valve to ensure performance. Valve application, materials compatibility, installation, operation and maintenance are the responsibility of the system design engineer.

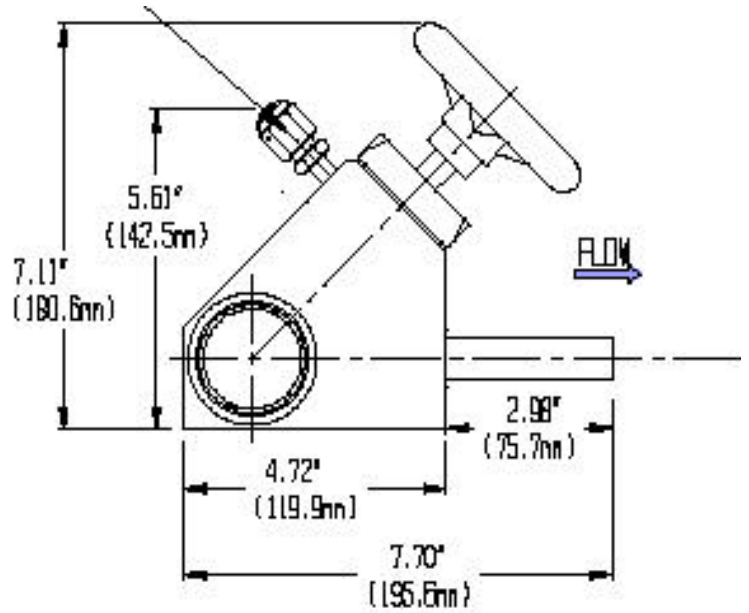
NOTE 1: Dimensional drawings shown are for reference only. Please contact the manufacturer for customer drawings showing updated dimensions

### VALVE DIMENSIONS

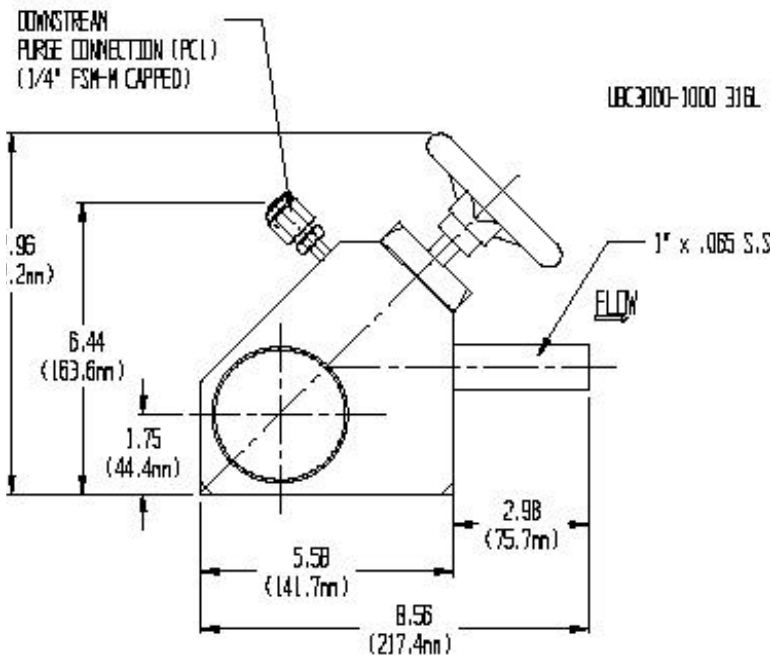
**UBC1500-065-1000-065-PC1**



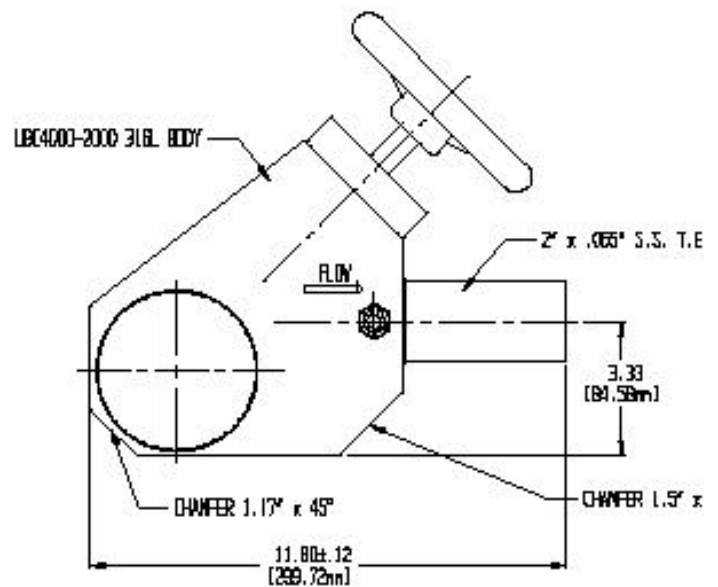
**UBC2000-065-1000-065-PC1**



**UBC3000-065-1000-065-PC1**



**UBC4000-065-2000-065-PC1**



Specifications subject to change without notice

#### Component Selection

The total system design must be considered when selecting a valve to ensure performance. Valve application, materials compatibility, installation, operation and maintenance are the responsibility of the system design engineer.

NOTE 1: Dimensional drawings shown are for reference only. Please contact the manufacturer for customer drawings showing updated dimensions