

UFC Series

Ultra-High Purity
TEE Block Valves

CARTEN
Ultra High Purity Valves



PRODUCT APPLICATIONS

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

- ✍ Ultra-high purity gas system distribution valves
- ✍ Point of use service where maximum gas flow is required
- ✍ Suitable for inert and most toxic gases

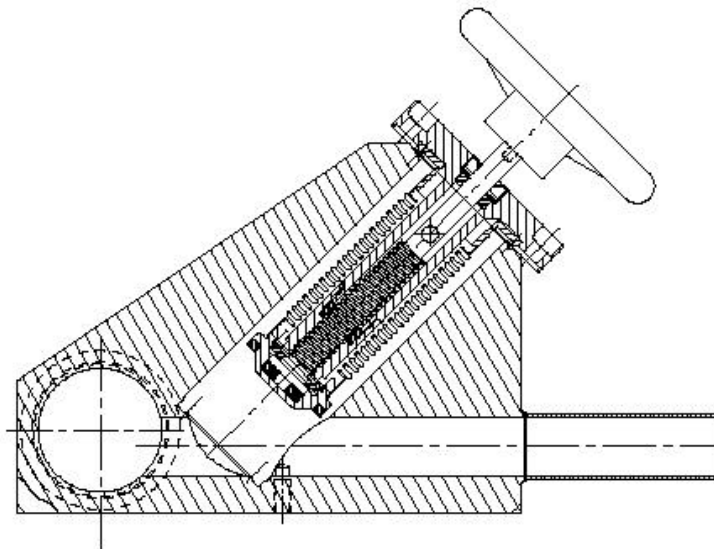
▶ PRODUCT FEATURES

- ▶ 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 n2 Gas.
- ▶ Minimum Restriction in the Flow Path - Highest CV Capacity Available in the UHP Industry.
- ▶ Valve Body & Tube Stubs are Serialised for Material Certification and Full Tractability.

● CONSTRUCTION MATERIALS

- 316L Stainless Steel Body and Tube Extensions
- Kel-F (CTFE) Seat Insert
- Easy Grip Handle for Open/Close Operation
- Inconel 625 Bellows for High Cycle Life and Superior Corrosion Resistance
- Nickel Foil Seal Gaskets
- 17-4 PH Stainless Steel Stem

UFC Series – Cut Section View



- 316L Valve Body
- CTFE Seat Insert
- Inconel 625 Bellows
- Handwheel
- 17-4 PH Stainless Steel Stem
- 316L Stainless Steel Bonnet
- 316L Stainless Steel Electropolished Tube Stubs

UFC 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
TEMPERATURE RANGE	UFC Series	-22°F (-30°C) to 180°F (82°C)
OPERATING PRESSURE	UFC Series	Vacuum to 375psi (25Bar)
FLOW COEFFICIENT (Cv)	UFC1000-750	13.00
	UFC1500-750	13.00
	UFC1000-1000	28.00
	UFC1500-1000	28.00
	UFC2000-1000	28.00
	UFC2000-1500	36.00
	UFC3000-1000	28.00
UFC3000-1500	36.00	

HELIUM LEAK TEST DATA	Inboard/Across the Seat	1x10 ⁻¹⁰ scc/s He max.	Rated
		1x10 ⁻⁹ scc/s He max.	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 ₂ 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 ₂ Testing Available Handwheel Colour Options Available on Request Air Actuated Operation Available on All Sizes Optional Seat Material Available for Higher Temperature Applications		

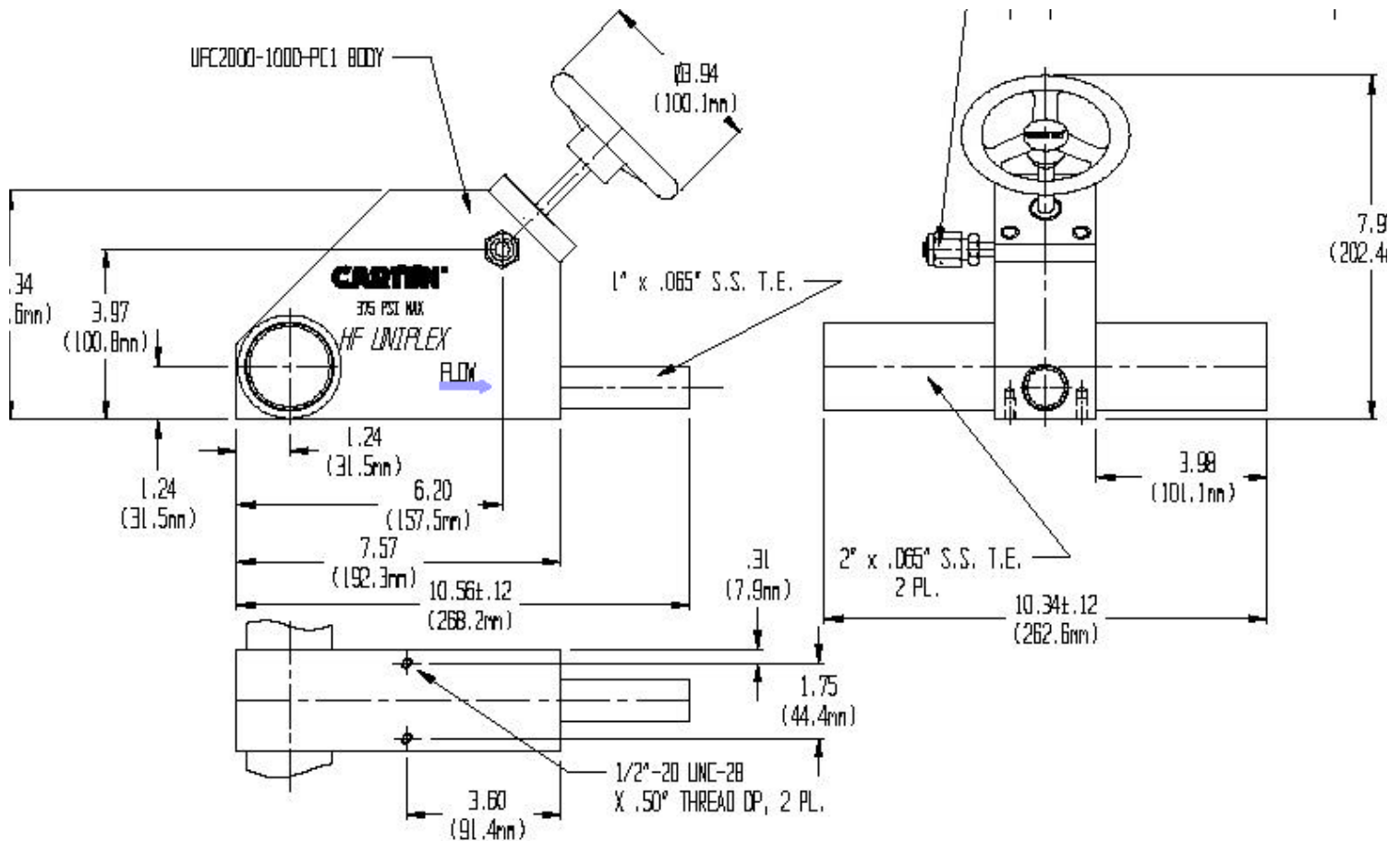
Component Selection

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

UFC2000-065-1000-065-PC1



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