20,000 Series
0 - 350 PSIG

CPC-Cryolab™

HIGH PURITY INLINE GAS VALVES

Technical Data

Operating Ranges

Temperatures .....-22°F to +180°F
-30°C to +82°C

Operating Pressures up to 350 PSIG

Size Range .....3/4" to 2" ODT

Tests

Seat Leakage .....Rated
1 x 10^{-10}scc GHe/sec
Excluding Permeation of
Kel-F Standard Production
1 x 10^{-9}scc GHe/sec

Helium Leak Test Performed with 100% Helium

Proof Pressure .....385 PSIG

External Leakage 1 x 10^{-9}scc GHe/sec

Materials

All Wetted Material.....316L Stainless Steel

Seat Material .....Kel-F

Bonnet Seal .....Nickel

Hand Wheel .....Anodized Aluminum

Features

- **Electropolished Wetted Surface 10-15 RA**
- **Tube Extensions Supplied with Heat Number & Material Test Reports (MTR)**
- **Tested Bellow Seal Design for Proven Cycle Life**
- **Low Profile Design**
- **1/4" Purge Connections are Face Seal Male (Standard)**
- **All Valves are Serialized for Traceability**
- **Cleaned for High Purity Gas Service**
- **Double Bagged Package**

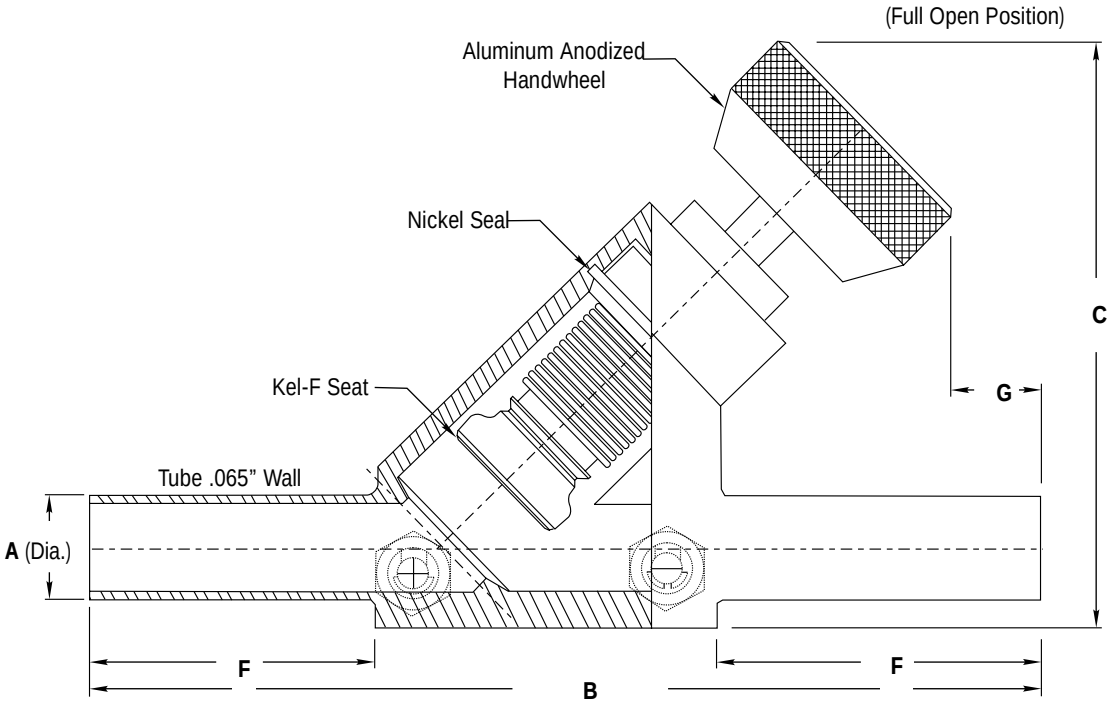
Applications

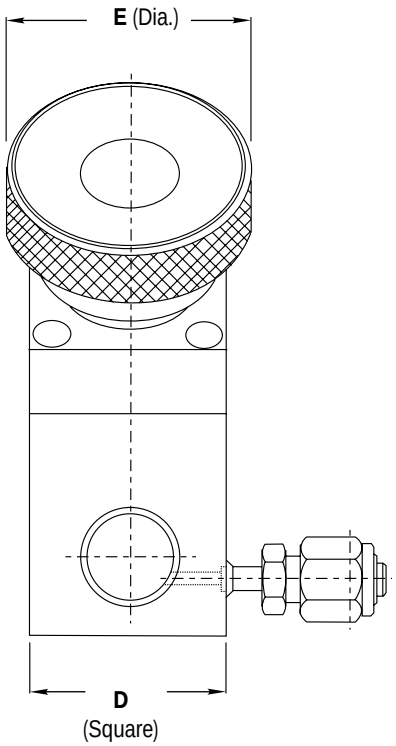
- **Point-Of-Use Services for High Purity Gases**
- **High Purity Gas Bulk Distribution Systems**
- **Bulk Gas Filtration & Regulator Skids**

Options

- **Colored Handwheels**
- **SEM & ESCA Testing and Auger Analysis Available for Tube Extensions**
- **Available with Specified Purge Valves Installed**
- **Air Actuated**

Dimensions & Specifications





DIMENSIONS

A	B	C	D	E	F	G
0.75"	10.5"	6.25"	2.0"	2.5"	3.50"	1.00"
1.00"	10.5"	6.25"	2.0"	2.5"	3.50"	1.00"
1.50"	11.0"	6.25"	2.0"	2.5"	3.75"	1.25"
1.50"	12.5"	6.50"	2.5"	3.0"	4.00"	2.00"
2.00"	12.5"	6.50"	2.5"	3.0"	4.00"	2.00"

PART NUMBERS, C_V AND WEIGHTS

Valve Size	Assembly Part Number	Seat Size	Calculated Flow C_V	Actual Test Results Full Open Liq. C_V	Full Open Gas C_V	Extracted Seat Liq. C_V	Extracted Seat Gas C_V	Weight Approx.
3/4"	13439	1.125"	10	–	–	–	–	6.0 lbs
1"	13442	1.125"	17	25.2	27.97	42.4	38.53	6.0 lbs
1-1/2"	13445	1.125"	21	–	–	–	–	6.0 lbs
1-1/2"	13448	1.562"	66	40.4	49.16	84.9	74.14	9.0 lbs
2"	13451	1.562"	79	–	–	–	–	9.0 lbs

Please consult your Distributor, Representative or our factory for information on special connections, alternate materials and larger sizes.