

# Flo-Tite, Inc.

## Valves & Controls

### CRYOGENIC BALL VALVES

#### CRYO SERIES

Flo-Tite's Cryogenic Ball Valves are specifically designed for Cryogenic Applications. They offer exceptional performance under the most extreme cold working temperature conditions.



**3 PC. MULTI - CHOICE**



**FLANGED END  
FULL - FLO SERIES**



**3 PC TRI - PRO**

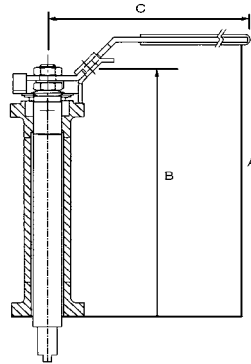
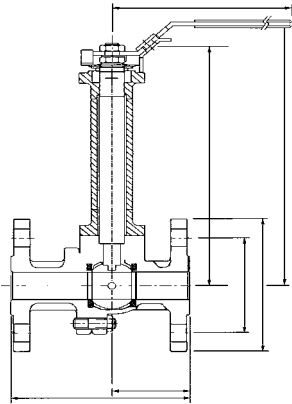
#### DESIGN FEATURES

- One piece stem which engages the ball directly
- Bolt-on or welded bonnet construction
- High strength 17-4ph stem, blow-out proof design
- Super-Tek III 25% carbon/TFM standard seating
- Live loaded V-Ring stem assembly
- UNI - Directional ball allows for upstream venting of the body cavity in the closed position.

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### DESIGN & TECHNICAL DATA



MODEL	VALVE SIZES	A	B	C
CY1	1/2 - 3/4	10.25	9.00	6.50
CY2	1 - 1 1/4	10.38	9.00	8.00
CY3	1 1/2 - 2	10.50	9.00	10.00
CY4	2 1/2 - 4	15.00	11.75	15.50
CY5	6	15.00	11.75	33.50

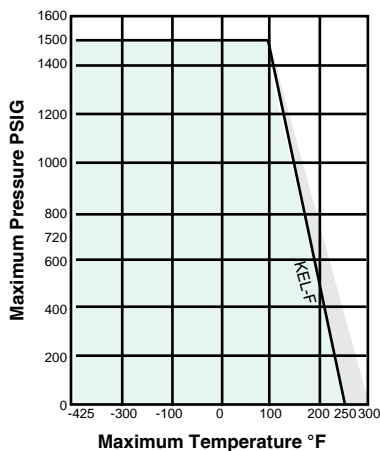
Note: Larger sizes C/F

Dimensions / Inch

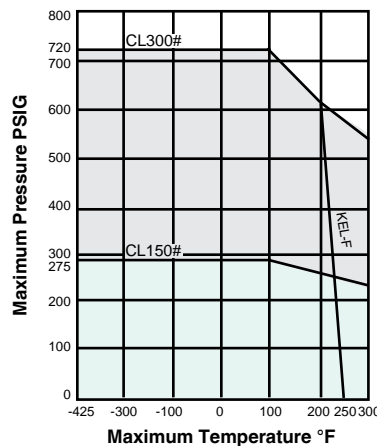
Valve and actuator mounting dimensions can be found in each selected valve model in this catalog or at [www.flotite.com](http://www.flotite.com)

### PRESSURE TEMPERATURE DATA

3PC MODEL 300 or HPF



FLANGED MODELS F150/F300



Flo-Tite's Cryogenic ball valves are designed specifically for your Cryogenic applications. All the Cryogenic valves have extended bonnets which prevents cryogenic liquids from reaching the stem packing by allowing the liquid to boil and convert back to gas. The ball has a pressure relief hole on the upstream side to prevent over pressure of the body cavity from thermal expansion.

### VALVE BREAKAWAY TORQUES

SIZE MODEL	300 3PC - 1500	HPF50 3PC - 2250	F150 2PC - Flanged	F300 2PC - Flanged
1/2	70	115	85	90
3/4	98	188	120	140
1	130	260	135	160
1 1/4	260	380	330	350
1 1/2	275	380	370	390
2	470	740	480	510
2 1/2	660	900	830	850
3	1000	1300	1080	1220
4	2100	2280	2200	2400
6	6000	N/A	6200	6400

All torque figures are shown in inch lbs.

All valve torques are based on maximum line pressure, at minimum temperature. All valve models are supplied with Flo-Tite's SuperTek III, 25% carbon/TFM or Kel-F seating.

Our standard, SuperTek TFM is also available for applications where temperature don't exceed -250 °F.

If you desire to use SuperTek seating you can deduct 30% from the torque figures shown.

Valve torques can increase as a result of freezing moisture on the valve ball or thermal contractions of the materials. The torques shown include enough safety factor for actuator sizing. They are based on maximum line pressure, at minimum temperature.