

K7 SERIES

CRYOGENIC BALL VALVES

Size Range:
1/4" - 2"

End Connections:
NPT
Butt Weld
Socket Weld

Body Material:
316 Stainless Steel
Brass

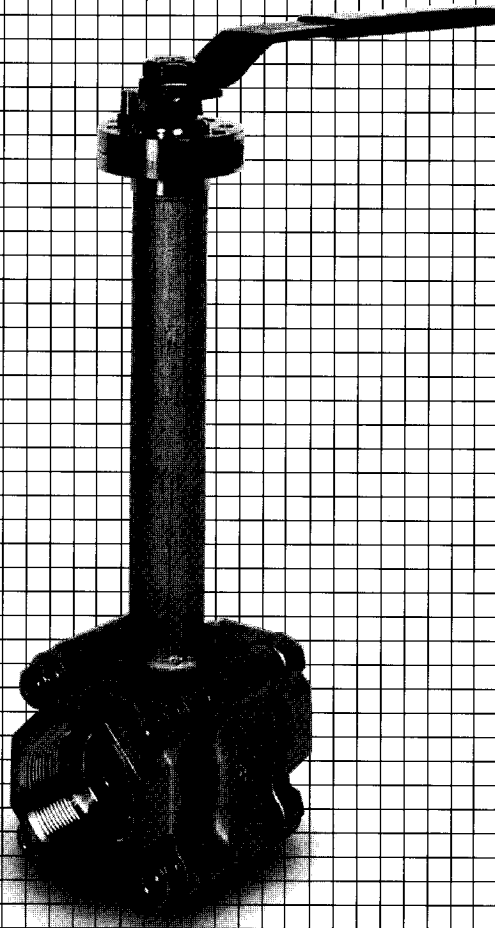
End Material:
316L
Brass

Ball & Stem Material
316 Stainless Steel
Alloy 20
Monel
Hastelloy-C
Brass

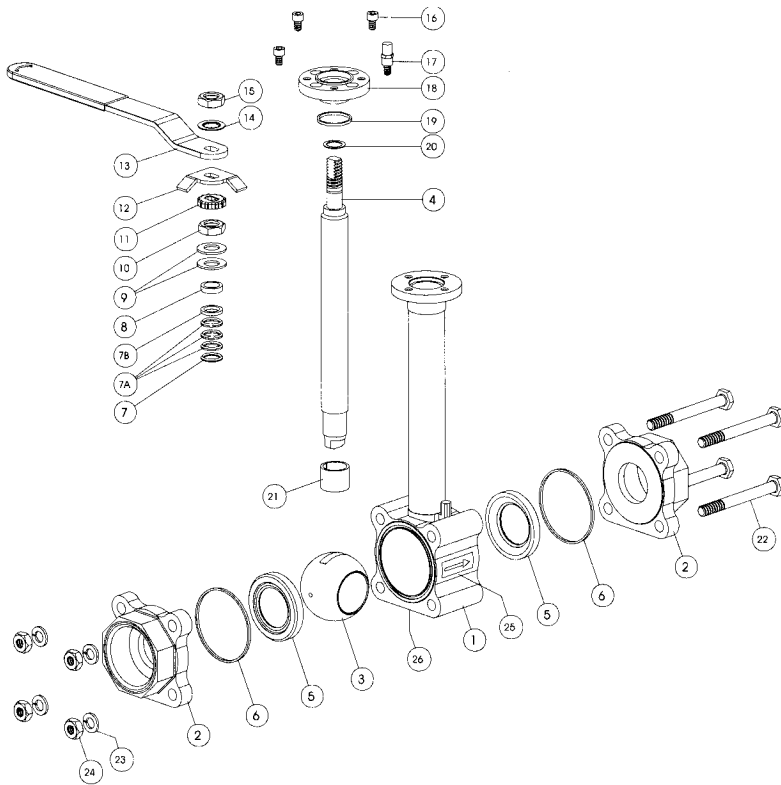
Service Application:
High Purity Cryogenic
Gas Systems
CO₂ & Nitrogen Injection
Over-The-Road
LNG - LPG Trailers

Seat:
PCTFE-KEL-F

Body Seals:
Teflon



K7 - VALVE COMPONENTS

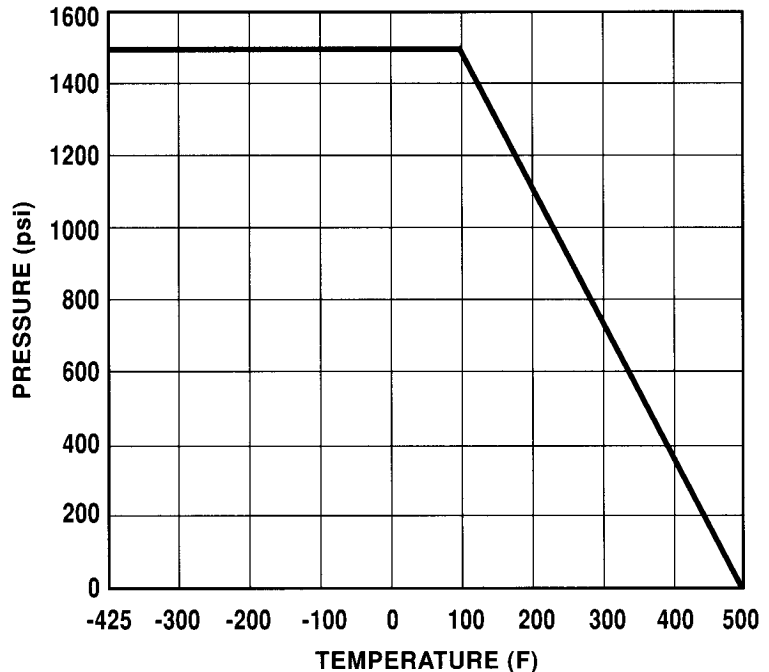


ITEM No.	DESCRIPTION	MATERIAL	No. OFF
1	BODY	S.ST ASTM A351 CF8M	1
2	BODY CONNECTOR	S.ST ASTM A351 CF3M	2
3	BALL (WITH RELIEF HOLE)	S.ST AISI 316	1
4	STEM	S.ST AISI 316	1
5	SEAT RING	PCTFE	2
6	BODY SEAL	PTFE	2
7	BOTTOM GLAND PACKING	PTFE	1
7A	MIDDLE GLAND PACKING	PTFE	3
7B	TOP GLAND PACKING	PTFE	1
8	GLAND	S.ST AISI 316	1
9	DISC SPRING	S.ST 1777-PH	2
10	GLAND NUT	S.ST AISI 316	1
11	LOCKING CLIP	S.ST AISI 304	1
12	STOP	S.ST AISI 430	1
13	HANDLE	S.ST AISI 304	1
14	SERRATED WASHER	S.ST AISI 316	1
15	HANDLE NUT	S.ST AISI 316	1
16	TOP FLANGE BOLTS	S.ST AISI 304	3
17	STOP	S.ST AISI 304	1
18	TOP FLANGE	S.ST AISI 316	1
19	TOP FLANGE SEAL	PTFE	1
20	THRUST SEAL	PTFE CARBON FILLED	1
21	STEM BEARING	PTFE	1
22	BODY CONNECTOR BOLTS	S.ST AISI 304	4
23	BODY CONNECTOR WASHER	S.ST AISI 316	4
24	BODY CONNECTOR NUTS	S.ST AISI 316	4
25	ARROW PLATE	S.ST AISI 316	1
26	NAME PLATE (NOT SHOWN)	S.ST AISI 316	1

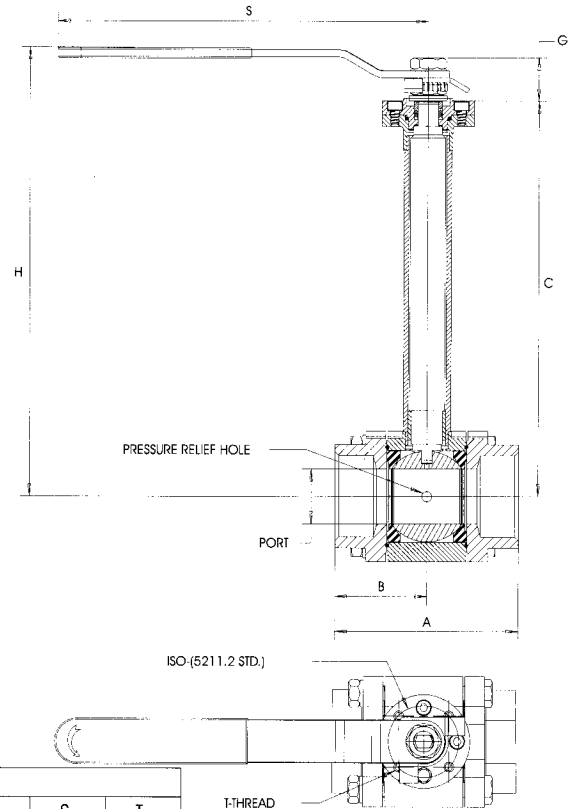
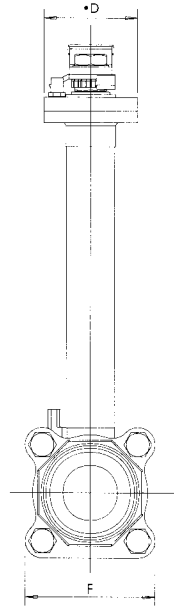
PERFORMANCE DATA

VALVE SIZE	APPROX FLOW COEFF. U.S. gpm	BREAK AWAY TORQUE
1/2"	8	88.5 IN/LBS
3/4"	12	133 IN/LBS
1"	32	221 IN/LBS
1 1/2"	80	354 IN/LBS
2"	104	443 IN/LBS

PRESSURE - TEMPERATURE GRAPH



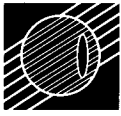
K7-DIMENSIONS



VALVE SIZE	DIMENSION										
	PORT	A	B	C	•D	F	G	H	ISO	S	T
1/2"	0.44	2.62	0.81	8.19	1.83	1.81	0.35	8.92	F03	5.45	M5
3/4"	0.56	2.80	0.96	8.29	1.83	2.04	0.35	8.93	F03	5.45	M5
1"	0.81	3.66	1.25	8.92	2.17	2.44	0.69	9.81	F04	7.24	M5
1-1/4"	1.00	4.25	1.62	9.07	2.17	2.71	0.94	10.01	F04	7.24	M5
1-1/2"	1.25	4.56	1.90	10.62	2.56	3.19	1.16	12.06	F05	10.22	M6
2"	1.50	5.03	2.22	10.81	2.56	3.58	1.16	12.06	F05	10.22	M6

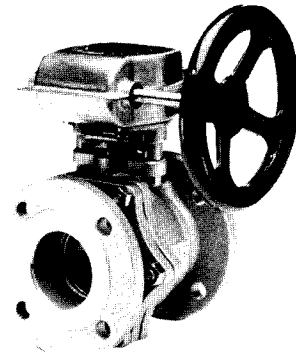
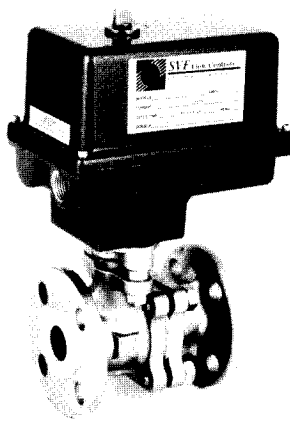
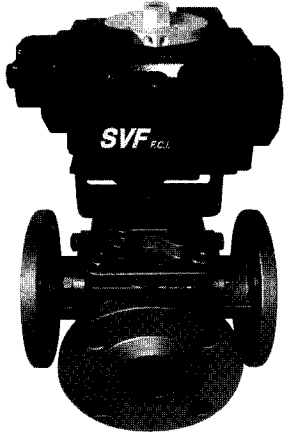
FEATURES & BENEFITS

FEATURES	BENEFITS
1. Upstream relief hole in ball	1. Relieves pressure in ball cavity due to thermal expansion.
2. Extended bonnet	2. Limits heat transfer & frost while keeping operating torques low.
3. I.S.O. Mounting pad	3. Allows for actuation without interrupting integrity of valve.
4. Kel-F Seats with teflon coated stainless o-ring	4. Assures positive shutoff in application temperatures from ambient to -425° F
5. Assembled, tested & bagged in a clean room	5. Assures valve integrity up to point of installation.



AUTOMATED PRODUCTS

Three piece construction of the K7 Series readily lends itself to automation with either factory assembly or infield retrofit. All SVF actuators may be removed for inspection or repair without affecting valve integrity.



Pneumatic Actuators

- Double Acting
- Spring Return
- Solenoids
- Limit Switches
- Positioners 3-15 psi
- Positioners 4-20 MA

Electric Actuators

- 120 VAC
- 12/24 VDC
- NEMA 4/7
- Positioners 4-20 MA
- Reversing

Manual Valves

- Gear Operators
- Stem Extensions
- Fusible Link
- Locking Device

HOW TO ORDER

1" K7 6 6 6 6 F T SE

SIZE	STYLE	BODY & END MATERIAL	BALL & STEM MATERIAL	SEAT	SEAL	ENDS
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	K7	6 - 316 Stainless Steel 1 - Brass	6 - 316 Stainless Steel 8 - Alloy 20 3 - Monel 9 - Hastelloy C 1 - Brass	F - CPTFE® *KEL-F	T - Teflon®	SE - Screwed (NPT) BW - Butt Weld SW - Socket Weld

* Not available in 3" - 4" (KEL-F) is a registered TM of 3-M Company