



Feature:

Design and Manf. :API608, JIS B2071

End Flange: ASME B16.5, JIS B2220

Face to Face: ASME B16.10, JIS B2002

Working Temp. : -20°C ~ +220°C

380°C or 450°C (Optional)

Test and Inspection: API598, JIS B2003

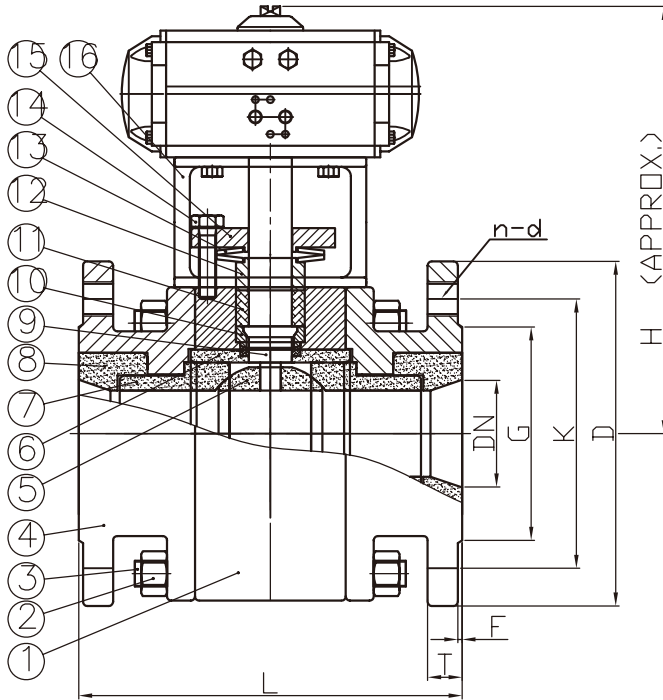
Pressure Testing:

Class	Test Pressure (MPA)		
	Strength	Seal	Ash
150lbs	3.0	2.2	1.0
300lbs	7.5	5.5	5.0
10K	1.5	1.1	1.0
16K	2.4	1.8	1.6
PN10	1.5	1.1	1.0
PN16	2.4	1.8	1.6
PN25	3.75	2.75	2.5
PN40	6.0	4.4	4.0

Specification of Ceramic

Specification	Unit	AL ₂ O ₃				ZrO ₂	
		AL ₂ O ₃ ≥95	AL ₂ O ₃ ≥99	AL ₂ O ₃ ≥99.5	AL ₂ O ₃ ≥99.8	ZrO ₂ AL ₂ O ₃ (ZTA)	ZrO ₂ AL ₂ O ₃ (YTZ)
Volume Density	g/cm ³	3.7	3.8-3.85	3.85	3.9	3.8-4.6	6
Hardness	HRA ≥	86	88	88	88	86-88	88-90
Bending Strength	Mpa ≥	300	350	400	400	172-450	900
Max.Working Temp.	°C	1500	1500	1500	1500	1400-1500	1500
Linear Expansion Coefficient	X10 ⁻⁶ /°C	7.5	8.2	8.2	8.2		
Permittivity	ε r20°C@1MHZ	9	9.2	9.2	9.2		
Dielectric Loss	tan δ X10 ⁻⁴ @1MHZ	3	2	2	2		
Volume Resistivity	Ω .cm20°C	10 ¹³	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹³	10 ¹⁴
Dielectric Strength	KV/mm@DC ≥	20	20	20	20		
Acid-resistance	mg/cm ² ≤	0.7	0.7	0.7	0.7		
Alkali-resistance	mg/cm ² ≤	0.2	0.1	0.1	0.1		
Abrasion-resistance	g/cm ² ≤	0.2	0.1	0.1	0.1		
Compressive Strength	MPA ≥	2500	2500	2500	2800	2300-2900	2500
Modulus of Rupture	MPA ≥	200	350	350	350		
Modulus of Elasticity	Gpa	300	350	350	350		
Poisson's Ratio		0.2	0.22	0.22	0.22		
Thermal Conductivity	W/m.K(°C)	20	25	25	25	13-27	22

Part List, Material and Dimension



No.	Part	Material
1	Body	A105, SS304, SS316
2	Body Nut	A194-2H
3	Body Bolt	A193-B7
4	Body End	A105, SS304, SS316
5	Ball	Ceramic
6	Bushing	Ceramic
7	Seat	Ceramic
8	Clam Ring	Ceramic
9	Stem	SS304, SS316, SS316L
10	Stem Seat	SS304, SS316, SS316L
11	Gland Packing	PTFE, Graphit
12	Gland	A193-B7, SS304
13	Belleville Washer	SS304
14	Gland Bolt	A193-B7
15	Gland Flange	SS304, SS316, SS316L
16	Yoke	SS304, SS316, SS316L

Size		H	L	ANSI B16.5 Class 150 / 300LBS RF					
				D	K	G	n-d	T	f
DN15	1/2"		108	90	60.3	43	4-M12	11.4	2
DN20	3/4"		117	100	69.9	53	4-M12	12.7	2
DN25	1"	98	127	110	79.4	50.8	4-M12	14.3	2
DN32	1-1/4"		140	115	89	64	4-M12	16	2
DN40	1-1/2"	124	165	125	98.4	73	4-M16	17.5	2
DN50	2"	132	178	150	121	92	4-M16	19	2
DN65	2-1/2"	164	190	180	140	105	4-M16	22.3	2
DN80	3"	173	203	190	153	127	4-M16	23.9	2
DN100	4"	229	229	230	191	157	8-M16	23.8	2
DN130	5"	a	356	254	216	168	8-M22.5	24	2
DN150	6"	a	394	279	241	216	8-M22.5	25.4	2
DN200	8"	a	457	343	299	270	8-M22.5	28.4	2