

# Factory Leakage Standards

## Gas Internal Leakage Standard

### Pilot Operated & Semi-direct Lift Valves

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
Rubber pilot & disc	B.T.	B.T.	B.T.	B.T.	B.T.	B.T.

### For 500 and 15400 valve Series, both N.O. and N.C.

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
PTFE pilot & PTFE disc	500 sccm	100 sccm	B.T.	B.T.	B.T.	B.T.

### For 4000, 5000, 6000, 7000, 8000, 12000, 15800, and 30000 valve Series, both N.O. and N.C.

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
PTFE pilot & PTFE disc	200 sccm	*	B.T.	B.T.	B.T.	B.T.
Metal pilot & PTFE/Kel-F®/rubber disc	1,500 sccm	1,500 sccm	1,000 sccm	500 sccm	500 sccm	500 sccm
Metal pilot & metal disc	2,000 sccm	2,000 sccm	3,000 sccm	3,000 sccm	3,000 sccm	3,000 sccm
Kel-F® pilot & Kel-F® disc	500 sccm	250 sccm	100 sccm	10 sccm	B.T.	B.T.

### Direct Lift Valves

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
Rubber seat	B.T.	B.T.	B.T.	B.T.	B.T.	B.T.
Plastic seat	50 sccm	5 sccm	B.T.	B.T.	B.T.	B.T.
Metal seat	1,000 sccm	1,000 sccm	1,500 sccm	1,500 sccm	1,500 sccm	1,500 sccm

\* 26-50 psig = 50 sccm; 51-100 psig = 10 sccm

## Liquid Internal Leakage Standard

### Pilot Operated & Semi-direct Lift Valves

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
Rubber Pilot & Disc	0	0	0	0	0	0
PTFE Pilot & PTFE Disc	5 cc/m	*	0	0	0	0
Metal Pilot & PTFE/Kel-F®/Rubber Disc	5 cc/m	5 cc/m	5 cc/m	5 cc/m	5 cc/m	5 cc/m
Metal Pilot & Metal Disc	10 cc/m	10 cc/m	10 cc/m	10 cc/m	10 cc/m	10 cc/m
Kel-F® Pilot & Kel-F® Disc	5 cc/m	5 cc/m	0	0	0	0

### Direct Lift Valves

SEAT MATERIAL	TEST PRESSURE, psig					
	1-25	26-100	101-500	501-1,500	1,501-3,000	OVER 3,000
Rubber Seat	0	0	0	0	0	0
Plastic Seat	2½ cc/m	**	0	0	0	0
Metal Seat	5 cc/m	5 cc/m	5 cc/m	5 cc/m	5 cc/m	5 cc/m

\* 26-75 psig = 5 cc/m; 75-100 psig = 0 cc/m

\*\* 26-75 psig = 2½ cc/m; 75-100 psig = 0 cc/m

### Definitions

Rubber	Elastomer (Buna N, Viton®, EPR, etc.)
B.T.	Bubble tight (less than 10 cc/hr leakage)
0	No leakage visible to the naked eye
sccm	Standard cubic centimeters per minute
cc/m	Cubic centimeters per minute

Note: Leakage values with PTFE and Kel-F® seats are after applicable after the valve has been cycled in production acceptance testing. Typically on clean fluid applications with PTFE or Kel-F® seats leakage decreases with number of cycles.