

VALVE TESTER INQUIRY

COMPANY NAME _____ DATE OF INQUIRY _____

CONTACT NAME _____ PHONE # _____

POSITION _____ FAX # _____

ADDRESS _____ HOW CUSTOMER HEARD OF US _____

1. TYPE OF BUSINESS: POWER PLANT REFINERY CHEMICAL PLANT
VALVE MFG VALVE REBUILDER DISTRIBUTOR OTHER:
PRODUCTION PER MONTH PER YEAR
(# OF VALVES)

2. TYPE OF VALVES TO BE TESTED: GATES GLOBES SW/CK PLUG BALL
BUTTERFLY RELIEF CONTROL DIAPHRAGM OTHER:

3. TYPE OF END CONNECTIONS: FL RF RTJ BUTT WELD
S/E S/W WAFER OTHER:

4. SIZE OF VALVES: 1/2" - 2" 2" - 12" 2" - 16" 6" - 24"
OTHER:

5. PRESSURE CLASS SIZE: 125 150 300 600
900 1500 2500 OTHER:

6. HAS VALVE TESTING EQUIPMENT SPECIFICATIONS BEEN DECIDED ON?: (YES / NO)

7. WHAT ARE THEY?: API - 598 API 6-D API-520 & 527
OTHER:
CUSTOMERS OWN: _____

8. TYPE OF VALVE TESTER DISCUSSED:

CLAMP PRESS SWIVEL TILT HEAD LEAD SCREW ROLL FRAME

ELECTRONICS: DIGITAL, RECORDER DATA CAPTURE SYSTEM

OTHER: _____

*9. RV TESTER ONLY: A. LARGEST VALVE INLET _____ & SET PRESSURE _____.

*B. HIGHEST PRESSURE SETTING _____ & INLET SIZE _____.

*RELIEF AND SAFETY VALVES ONLY.

TESTER SELECTION CHART

(TONS OF HYDRAULIC SEALING FORCE)

SIZE	ANSI CLASS 150 SHELL TEST PRESSURE 450 psi		ANSI CLASS 300 SHELL TEST PRESSURE 1125 psi		ANSI CLASS 600 SHELL TEST PRESSURE 2225 psi		ANSI CLASS 900 SHELL TEST PRESSURE 3350 psi		ANSI CLASS 1500 SHELL TEST PRESSURE 5575 psi		ANSI CLASS 2500 SHELL TEST PRESSURE 9250 psi	
	FLANGED NOTE 2	B.W. NOTE 3	FLANGED NOTE 2	B.W. NOTE 3	FLANGED NOTE 2	B.W. NOTE 3	FLANGED NOTE 2	B.W. NOTE 3	FLANGED NOTE 2	B.W. NOTE 3	FLANGED NOTE 2	B.W. NOTE 3
2	0.71	1.00	1.77	2.49	3.49	4.93	5.26	7.42	8.75	12.34	14.52	20.48
3	1.59	2.16	3.97	5.41	7.86	10.70	11.83	16.11	19.69	26.81	32.68	44.48
4	2.83	3.58	7.07	8.94	13.97	17.68	21.04	26.63	35.01	44.31	58.09	73.52
6	6.36	7.75	15.90	19.38	31.44	38.33	47.34	57.71	78.77	96.04	130.70	159.35
8	11.30	13.14	28.26	32.85	55.89	64.97	84.15	97.81	140.04	162.78	232.36	270.08
10	17.66	20.41	44.16	51.03	87.33	100.92	131.49	151.95	218.82	252.87	363.06	419.56
12	25.43	28.71	63.59	71.78	125.76	141.97	189.34	213.75	315.10	355.72	522.81	590.20
14	34.62	34.62	86.55	86.55	171.17	171.17	257.72	257.72	428.88	428.88	711.60	711.60
16	45.22	45.22	113.04	113.04	223.57	223.57	336.61	336.61	560.18	560.18	929.44	929.44
18	57.23	57.23	143.07	143.07	282.95	282.95	426.02	426.02	708.97	708.97	1176.32	1176.32
20	70.65	70.65	176.63	176.63	349.33	349.33	525.95	525.95	875.28	875.28	1452.25	1452.25
24	101.74	101.74	254.34	254.34	503.03	503.03	757.37	757.37	1260.40	1260.40	2091.24	2091.24
30	158.96	158.96	397.41	397.41	785.98	785.98	1183.39	1183.39	1969.37	1969.37	3267.56	3267.56
36	228.91	228.91	572.27	572.27	1131.81	1131.81	1704.08	1704.08	2835.89	2835.89	4705.29	4705.29
42	311.57	311.57	778.92	778.92	1540.52	1540.52	2319.44	2319.44	3859.96	3859.96	6404.42	6404.42
48	406.94	406.94	1017.36	1017.36	2012.11	2012.11	3029.47	3029.47	5041.58	5041.58	8364.96	8364.96

NOTES:

1. THE TEST PRESSURES USED IN THE CALCULATIONS ARE FOR THE SHELL TEST PER ANSI B16.34 AND REPRESENT THE MAXIMUM PRESSURE APPLIED TO ANY VALVE IN ITS ANSI CLASS.
2. THE SEAL DIAMETER USED IN THE CALCULATIONS FOR THE FLANGED VALVES IS THE SAME AS THE NOMINAL PIPE SIZE.
3. THE SEAL DIAMETER USED IN THE CALCULATIONS FOR THE BUTT-WELD VALVES IS THE OUTSIDE DIAMETER OF THE NOMINAL PIPE SIZE.
5. THE ASSUMPTIONS USED IN CALCULATING THESE FORCE REQUIREMENTS MAY NOT REFLECT THE ACTUAL CASE IN SOME INSTANCES. FOR EXAMPLE THE HIGHER ANSI CLASS VALVES MAY SEAL ON AN O-RING SMALLER THAN THE NOMINAL PIPE SIZE BECAUSE THE PORT OF THE VALVE IS SMALLER THAN THE NOMINAL PIPE SIZE. LIKEWISE THE LOWER ANSI CLASS VALVES MAY SEAL ON AN O-RING LARGER THAN THE NOMINAL PIPE SIZE BECAUSE THE VALVE PORT IS LARGER OR VERY CLOSE TO THE NOMINAL PIPE SIZE AND OR THE VALVE MAY NOT BE CENTERED EXACTLY ON THE SEAL PLATE.
6. IT IS OUR RECOMMENDATION THAT WHEN SIZING A TESTER, THAT THE FORCE REQUIREMENTS AS SHOWN IN THIS CHART BE NO LARGER THAN 90 PERCENT OF THE MAXIMUM SEALING FORCE CHOSEN.

Dunn's Valve Testers, Inc.

P. O. Box 489 * Spring, Texas 77383 * (281) 350-4767 * (800) 749-3866 * Fax (281) 288-8720
 E-mail - dunnsvlv@flash.net * Home Page - www.dunnsvalvetesters.net

X = Required
O = Optional

API 598 or 591 ASME 16.34 - ISA - S75

Type of Valves	Shell Test (Water)	Backseat Test (Water) (90% of Shell Test)	Seat Test (Water) (High Pressure Closure)	Seat Test (Air) (Low Pressure Closure)	Type of Valve Tester
GATE	X	X	O	X	Flange Clamp or Press
GLOBE	X	X	X	O	Flange Clamp or Press
SW/CK	X	N/A	X	O	90 Degree Swivel Flange Clamp or Press
PLUG	X	N/A	O	X	Flange Clamp or Press
BALL (FLOATING)	X	N/A	O	X	Flange Clamp or Press
BALL (TRUNNION)	X	N/A	O	X	Flange Clamp or Press
BUTTERFLY	X	N/A	O	X	Flange Clamp or Press
CONTROL	X	X	O	X	90 Degree Swivel Press w/Flow Meters for Seat Leakage Test
GATES } PLUGS } 0-4" NPS - CLASS 2500# AND UP, BUTTERFLY } 5" NPS AND LARGER - CLASS 900# BALL (TRUNNION) } AND UP			X	O	Flange Clamp or Press

*All weld-end, socket weld, and wafer valves require press type testers.

API 576 And 527

RELIEF VALVE =	Functional Performance Test Set, Lift, and Blow Down (Air, Steam, or Water) (Volume Required)	Reseat Test (110% of Set Pressure)	Seat Tightness Test (Air 90% of Set Pressure)	Flange Clamp with Large Line to the Table from Accumulator for Volume Testing.
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