SELECTING SIZE OF LEVER VALVE

The *maximum* capacity of a float or lever valve depends on its size and on the pressure difference – or drop – between the inlet and outlet when the valve is wide open. **It is recommended that a valve be selected having 50% to 100% more capacity than the normal demand.** For example, if the normal requirement is 100 gallons per minute, a valve having 150 to 200 G.P.M. capacity should be selected. This will result in less variation in water level, and provide reserve capacity in case of low water pressure or unusual demand. *The maximum capacity is the product of the flow per square inch of port area (Orifice Capacity) multiplied by the equivalent port area of the valve (Capacity Factor).*

MAXIMUM CAPACITIES OF NOS. 62 LEVER VALVE U.S. GALLONS PER MINUTE OF WATER

Pressure Drop between Inlet and Outlet in Pounds per Square Inch

Size Inches	1	3	5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	Capacity Factor
½"	1.5	2.6	3	5	6	7	7	8	9	10	10	11	12	13	14	14	15	.04
¾"	5.7	10	13	18	22	25	28	31	34	36	38	40	44	48	51	54	57	.15
1"	9.1	16	20	29	35	40	46	50	54	58	61	64	70	76	81	86	91	.24
1 ¼""	15	26	34	48	58	68	76	83	90	97	102	108	118	127	136	144	152	.40
1 ½"	22	38	48	68	83	97	108	118	128	138	145	154	168	181	194	205	216	.57
2"	53	92	119	168	204	236	266	290	314	339	357	377	412	446	447	--	--	1.4
2 ½"	64	111	144	204	248	287	323	352	382	410	433	458	500	--	--	--	--	1.7
3"	87	150	196	276	335	389	437	476	518	556	586	620	--	--	--	--	--	2.3
4"	167	290	374	528	642	743	846	910	990	--	--	--	--	--	--	--	--	4.4
5"	285	493	637	900	1095	1270	1425	1550	--	--	--	--	--	--	--	--	--	7.5
6"	388	672	867	1225	1490	1725	1940	--	--	--	--	--	--	--	--	--	--	10.2
8"	596	1030	1335	1885	2290	2655	--	--	--	--	--	--	--	--	--	--	--	15.7
10"	950	1645	2125	3000	3650	--	--	--	--	--	--	--	--	--	--	--	--	25
12"	1520	2630	3400	4800	5830	--	--	--	--	--	--	--	--	--	--	--	--	40
1 sq.in. orifice Capac.	38	66	85	120	147	170	190	208	225	240	255	269	294	318	340	360	380	1

For other liquids divide above G.P.M. by $\sqrt{\text{specific gravity of the liquid.}}$

Orifice Capacity: Bottom line of tables shows the G.P.M. of water which will flow through a standard orifice of 1 sq. in. area at the given pressure drop. These quantities are calculated by the formula:

G.P.M. per Sq. In. = $38\sqrt{\text{Pressure Drop in P.S.I.}}$

= $25\sqrt{\text{Pressure Drop in Feet}}$

For other liquids, divide the above G.P.M. by

$\sqrt{\text{specific gravity of liquid.}}$

Capacity Factor: The last column at the right in the tables shows the equivalent square inches of port area of each valve size. These capacity factors are obtained by test, not by measurement of the ports.

Capacity Factors for other types of valves are listed in the last column of each table on that page.