



Sizing Manual

Sizing Deep Well Valves

Deep Well Valves are available in sizes 1/2” through 6”. However, where pipe line water velocities exceed 10 Ft./second, CRISPIN Surge Check Air and Vacuum Valves should be applied. These are available in sizes 3” through 24”.

All sizes and types of Deep Well Air Valves are available with screwed discharge connection.

Sizing Formula

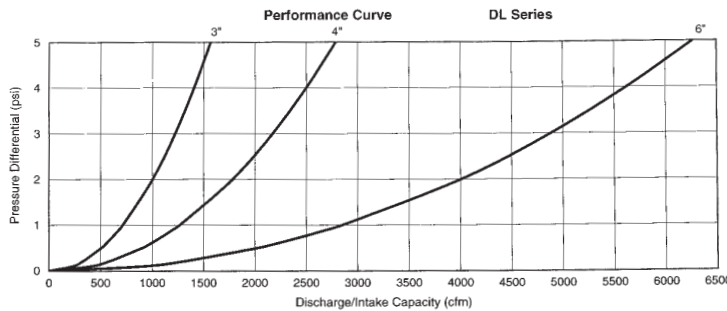
1. Determine pump capacity when the pump starts with little or no head on the discharge side of the pump.
2. Determine the exhaust flow capacity of air from the pump capacity.

$$CFM = \frac{Q}{7.48 \text{ gallons/cu. ft.}}$$

Q = flow in gallons per minute
CFM = cubic feet per min. of exhaust air

3. Refer to performance curves with the air capacity required to be passed by the valve at a pressure differential maximum of 2 psi. Use the valve size indicated by the curve to the right of the point selected.

Performance Curves



The following sizes are recommended for normal installation:

Model Information

Pump Capacity G.P.M.	Valve Size	Model Number
200	1/2”	D5
201-800	1”	DL10
801-3700	2”	DL20
3701-7000	3”	DL30 or AL31/SC
7001-14000	4”	DL40 or AL41/SC
14001-29000	6”	DL61 or AL61/SC
29001-57000	8”	AL81/SC
57001-93000	10”	AL101/SC
93001-134000	12”	AL121/SC

3”, 4” can be furnished with flanged connection.

6”-12” furnished with flanged connection only.

Sizing Combination Valves

In sizing Combination Air Valves, both Air and Vacuum Valve sizing and Pressure Air Release Valve sizing must be done. Determine the Air and Vacuum size first by following the Air and Vacuum sizing instructions. The Air and Vacuum size is the commonly referred valve size of a Combination Valve. (For example, a 6” Combination Valve uses a 6” Air and Vacuum valve.)

Once you have determined the proper Air and Vacuum Valve size, do your Pressure Air Release Valve sizing. Refer back to the standard orifice selections in this catalog to determine the appropriate model.