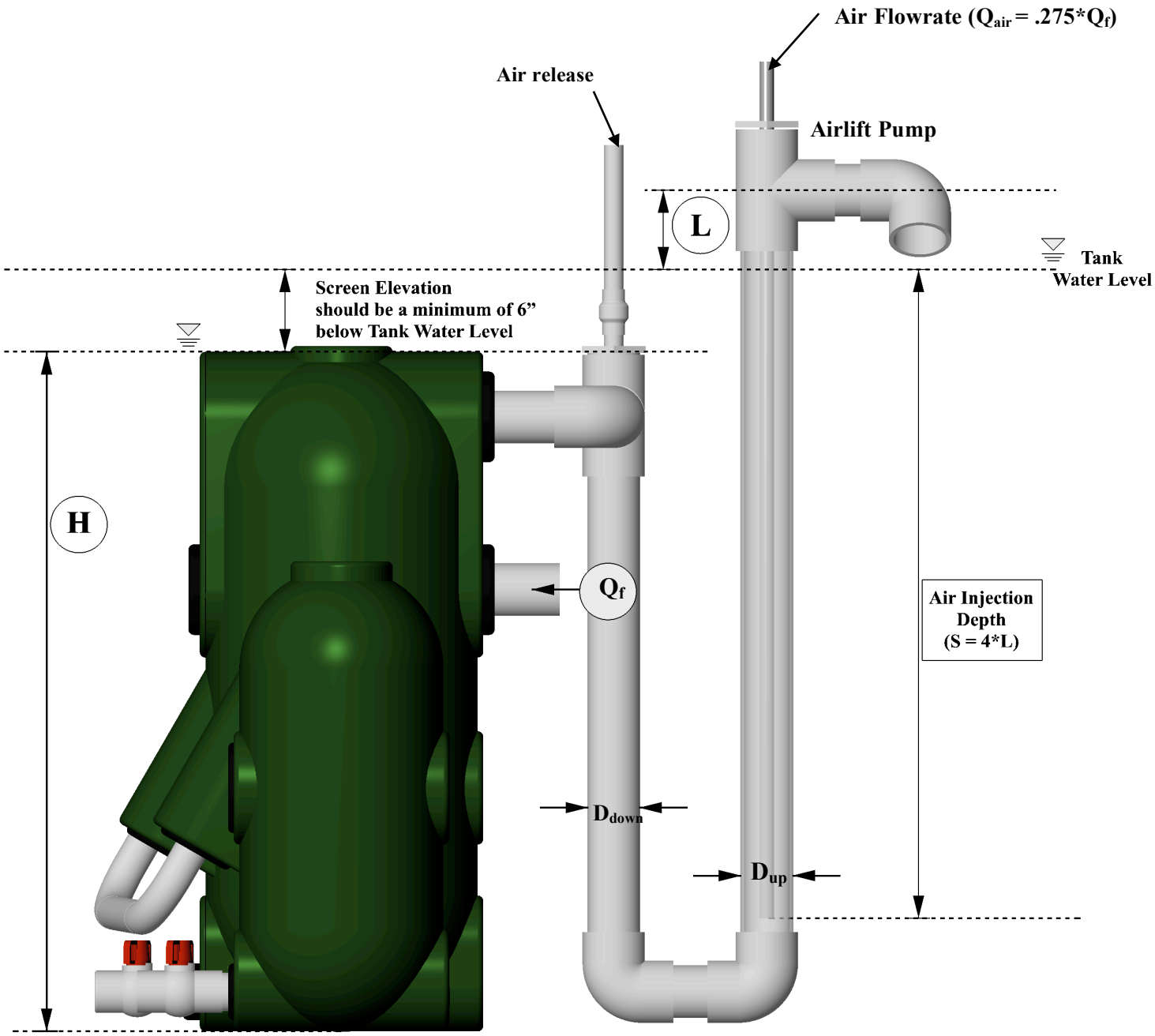
Typical Airlift Pump Configuration for the Endurance 2000 and 4000 Bead Filters



Filter ID	Flowrate (Q_f, gpm)	Outlet Pipe Size		Flow Velocity (ft/s)		Filter Height (in)	Air Lift Requirement Range (in)	Air Injection Depth (in)	Air Delivery Pressure (in)	Air Flowrate (Q_{air}, scfm)
		(D_{down})	(D_{up})	(V_{down})	(V_{up})	(H)	(L)	(S = 4*L)	(equal to S)	
END 2000	10	1.5	2	1.82	0.97	30	0-12	34-48	34-48	2.75
END 4000	20	2	3	1.95	0.88	40	0-12	43-48	43-48	5.5

*For each application, air injection depth (submergence) must be determined. The minimum lift required is 0 inches. For a 0" lift, the air should be injected at the lowest point of the airlift (34" below water level for the Endurance 2000 and 43" for the Endurance 4000). Based on the equation: S = 4*L, a 34" submergence can lift up to 8.5" and a 43" submergence can lift up to 10.75". For every additional inch of lift, 4 inches of submergence should be added.

ENDURANCE 2000

- If **0” ≤ L ≤ 8.5”**, then **S = 34”**
- If **8.5” < L ≤ 12”**, then **S = 4*L**

ENDURANCE 4000

- If **0” ≤ L ≤ 10.75”**, then **S = 43”**
- If **10.75” < L ≤ 12”**, then **S = 4*L**

EXAMPLE OF AIRLIFT SIZING:

Airlift designed for Endurance 2000 with flowrate of 10 GPM, filter height at 30” and water level at 36”

- For a 0” lift, water should be injected 34” below water level (effectively 2” from ground). Air flowrate of 2.75 CFM needed at 34” water pressure.
- For a 10” lift, water should be injected 40” (S = 4*10”) below water level. To accommodate extra height needed for a 40” submergence, pipe may be buried in ground or tank water level raised. Air flowrate of 2.75 CFM needed at 40” water pressure.