

Figure: 30 TAC §217.98(d)

Equation D.6.

$$Q_{vp} = \frac{A \times Q_{max}}{7.5g/cf} + B \times N$$

Where:

Q_{vp} = Minimum vacuum pump capacity

A = Variable based on pipe length

Q_{max} = Station peak flow (gallons per minute)

B = Bleed rate of vacuum valve controller (square feet per minute)

N_v = Number of vacuum valves in system

g/cf = gallons per cubic feet

The value of A must be as follows:

Longest Pipe Length (feet.)	A
0-3,000	5
3,001-5,000	6
5,001-7,000	7
7,001-10,000	8
10,001-12,000	9
12,001-15,000	11

Equation D.7.

$$Q = \frac{V}{PDT} \times \log \frac{H_1}{H_2}$$

Where:

Q = Flow rate of vacuum pump (cubic feet per second)

PDT = Time to reduce head from H_1 to H_2 (seconds)

V = Volume of closed system (cubic feet)

H_1 = Initial absolute pressure head (inches of mercury)

H_2 = Final absolute pressure head (inches of mercury)