



Water Quality Program – Swimming Pools and Spas Fact Sheet:

GUIDELINES FOR FIGURING THE FLOW RATE BY VACUUM GAUGE

1. Be sure that filters(s) have recently been backwashed
2. Observe the vacuum gauge reading in inches of Hg (mercury) then multiply that reading by 1.13 to obtain feet of head.
3. Observe the influent pressure gauge, then multiply the reading by 2.31.
4. Add the two figures together to obtain the total feet of head.

5. Using the pump curve and the total feet of head figure, determine the rate of flow.

EXAMPLE: Hypothetical readings might be as follows:

Vacuum gauge 10 inches of Hg
 Influent pressure 10 psi

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|------------|-----------|---|-------------|-------------------|
| Therefore: | 10 x 1.13 | = | 11.3 | ft. or head |
| | 10 x 2.3 | = | <u>23.1</u> | ft. of head |
| | | | 34.4 | Total ft. of head |

Application of this total head to the pump performance curve will establish the number of gallons per minute that the pump is capable of delivering.

A flowmeter must be installed on a horizontal straight run of pipe with a minimum of 10 pipe diameters before and 4 pipe diameters after the flowmeter. It should be positioned after the filter and before the heater. It may be installed after the heater, if a great enough distance can be maintained so that heated water will not damage the flowmeter.

