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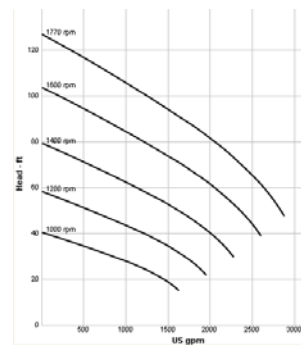
New Price Pages

By the time you read this, you should have just received new price pages and updated catalog literature. Changes include details on the optional stuffing box shaft sleeve, new price book adders, and corrections to past printed mistakes (oops!).

If you have sales staff who are not on our mailing list for catalogs and price pages, please let us know so we may update our records. In addition, as we expand email correspondence (order acknowledgements, submittals, etc.), we'll begin to require an email address included with your purchase orders.

Affinity Laws

For the better part of the 20th century, most vertical turbines were operated at constant speed. Now as variable frequency drives begin to enter the market, we start to see centrifugal pumps operated thru a wide range of speeds. Thus we find customers inquiring how to predict flow, head, and horsepower draw at



lower speeds. To answer these questions, we turn to the affinity laws. Below are the three most common equations used to predict pump performance when the impeller diameter held constant.

$$\frac{\text{Flow}_1}{\text{Flow}_2} = \frac{\text{RPM}_1}{\text{RPM}_2}$$

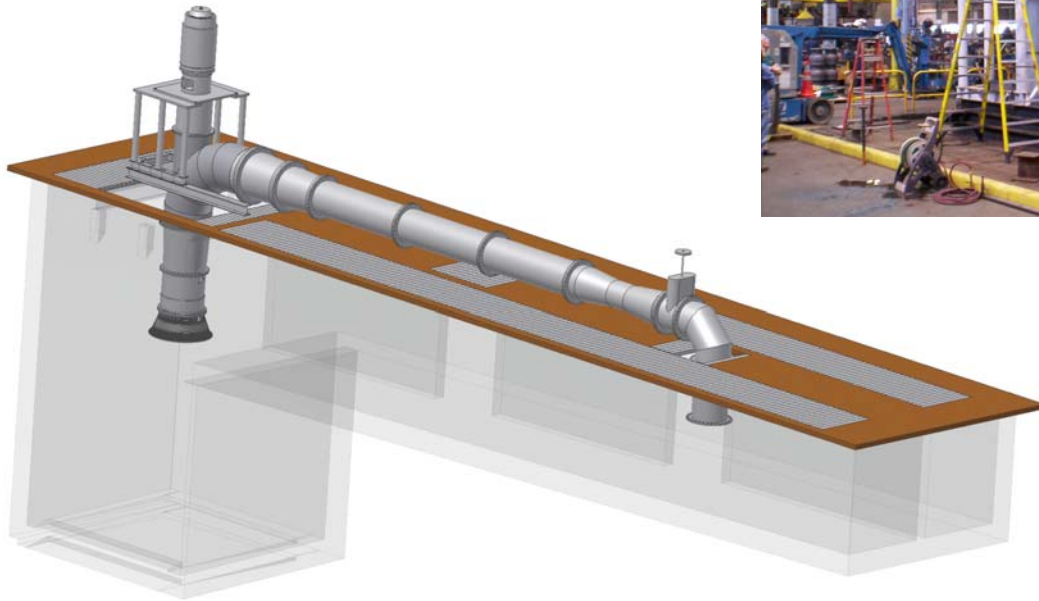
$$\frac{\text{Head}_1}{\text{Head}_2} = \left(\frac{\text{RPM}_1}{\text{RPM}_2} \right)^2$$

$$\frac{\text{BHP}_1}{\text{BHP}_2} = \left(\frac{\text{RPM}_1}{\text{RPM}_2} \right)^3$$

Factory Testing

In the old days, factory testing consisted of just the bowl assembly mated with factory test column, head, and a calibrated test motor. However, today it's common to see specifications require the complete pump with job driver factory tested. So what if a large pump must be tested? Are there limitations for configuration, length, horsepower, voltage, or discharge pipe sizes? These are some of the questions asked regarding factory testing.

Most recently, we tested a 400 HP Verti-Line 24P – 2 stage propeller pump with a below ground discharge. The pump was tested as a complete unit with its job driver. Thirty feet of column and bowl assembly hung below the pedestal, with the discharge outlet located 7 ½ feet down from the top. A support structure was employed to raise the pedestal high enough for the 36" discharge piping to be just above test floor level.



Though additional time, effort, and consequently cost are encountered to perform such a test, it provides the customer with a higher level of confidence in their equipment. Don't hesitate to contact us to inquire about our test capabilities!



Fresno, CA – Layne / Verti-Line

Did you know Layne / Verti-Line has another assembly plant in Fresno, California? Our Fresno facility is a small operation geared primarily for servicing the agricultural market. Inventory consists of turbine bowls up to 17”, and various sizes of propeller and mixed flows up to 20”. While there is no test facility, Fresno has the ability to assemble standard construction turbines in a relatively short time frame. This provides distributors a valuable resource to meet their customer’s needs.



Our current price pages apply, but are subject to production limits of the Fresno plant. If you have a question regarding Fresno’s capabilities, or need a quote, contact:



Layne & Bowler/ Verti-Line - Fresno

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