



Message from Mr. L&B

As 2006 comes to an end, we can look back and be pleased with the progress made this year. Working together with our distributors, we've increase exposure of Layne / Verti-Line to engineers and end users. With a 100 year history behind our name, our customers can be confident when specifying and buying our pumps.

Sales activity of both pumps and parts has increased throughout the year, with rebuild / replacement activity as high as ever. Distributors can benefit because of the overall service package they can provide. Quoting parts, repair or rebuild services, and complete replacement units gives customers an array of options. This builds confidence within the customer that they have come to the right distributor (and manufacturer) for their pumping needs. In addition, not only do we replace old L&B pumps, but we also like replacing competitor's pumps! For distributors who do not have a repair shop, consider our factory overhaul facility right here in Kansas City, Pump Services Group. We can repair and rebuild virtually any vertical turbine pump on the market.

Finally, from all of us here at Layne / Verti-Line, we'd like to end the year by wishing everyone Happy Holidays!

2006 WEFTEC

Held in Dallas this year, WEFTEC is the show to be at if you're in the municipal market. With attendance at an all time high, traffic was steady during most of the show. Engineers, maintenance supervisors, end users, and distributors stopped by our booth to inquire about new products, literature, and discuss future projects. The municipal market holds great potential for Aurora and Layne / Verti-Line distributors. While our vertical turbines have always had a strong presence in the municipal market, Aurora pumps have a greater opportunity for growth. Consider packaging Aurora horizontals with Layne / Verti-Line vertical turbines on municipal projects.



WEFTEC – Continued

Aurora and Layne / Verti-Line staff were on hand to greet customers and answer questions. Representing the factory were:

Dave Roland	N. Aurora General Mgr.
RJ Dausman	East Regional Mgr.
David Botts	Midwest Regional Mgr.
Roger Hahn	West Regional Mgr.
Chris Lula	Layne / Verti-Line Mgr.
Mark Kroner	Sr. Application Engineer
Barry Cronin	Sr. Int'l. App. Engineer

One way to measure the success of a manufacturer is to look at their distribution network. Without our distributors, it would be very difficult to sell any pumps. Listed below are a few of our distributors who attended the show and stopped by our booth.

Ames, Inc.
 ASC Pumping Equipment
 Barney's Pumps, Inc.
 BBC Pump & Equipment
 Gayle Corporation
 W.W. Goetsch Associates, Inc.
 Instrument & Supply
 James, Cooke, & Hobson, Inc.
 Keller-Rivest
 LOC Pump
 John Lisee Pump, Inc.
 McLemore Pump, Inc.
 Mechanical Equipment Co., Inc.
 Metropolitan Industries
 Parson & Sanderson, Inc.
 Siewert Equipment Co., Inc.
 Smith Pump
 Water & Waste Equipment
 Wood Equipment

Upcoming Events - ASHRAE

Layne / Verti-Line will be included with Aurora Pump at the 2007 ASHRAE trade show. Aurora's booth number will be 3728. If you are attending the show, please stop by and visit with our factory representatives.

Jan 29th – 31st ASHRAE
 Dallas Convention Center
 Dallas, TX

Regional Managers

September marked a welcomed addition to Layne / Verti-Line's sales team. David Botts joined us as the Midwest Regional Sales Manager for Aurora and Layne / Verti-Line products. David started his career at Marley Pump in 1985, then moved to the Kansas City Aurora Sales Office in 1989. When the office was purchased by ASC Pumping Equipment in 1992, he continued his career there selling Aurora and Layne / Verti-Line.

With the addition of David Botts, we now have four regional managers covering the United States. Feel free to contact your Regional Manager anytime you have a question on an Aurora or Layne / Verti-Line product.

South Steve Ecuyer
 (504) 455-6773 phone
 (504) 455-6037 fax
steve.ecuyer@pentairwater.com

East & Canada RJ Dausman
 (315) 638-4688 phone
 (315) 638-4646 fax
rj.dausman@pentairwater.com

West Roger Hahn
 (626) 857-9490 phone
 (626) 914-6524 fax
roger.hahn@pentairwater.com

Midwest David Botts
 (816) 272-5535 phone
 (816) 272-5536 fax
david.botts@pentairwater.com

Newsletter

Have a technical question? Maybe a picture to share for our "Pump Highlight" or "Snapshot in History" section. Feel free to send them to:

Chris Lula
 3601 Fairbanks Ave.
 Kansas City, KS 66102
 (913) 748-4254 phone, 4030 fax
chris.lula@pentairwater.com

H2Optimize V9.0 Released!

An online version of the new H2Optimize for Layne / Verti-Line vertical turbines has been released. No matter where you are in the world, selecting a vertical turbine is now just a few mouse clicks away. H2Optimize can be accessed directly from the Layne / Verti-Line website.

- <http://www.laynevertiline.com>
- <http://www.vertiline.com>
- <http://www.laynebowler.com>
- <http://www.lvlpump.com>

From the home page, the online H2Optimize link can be found under the **Software** section.

Some of the new features of version 9.0 include:

- Easy to use online interface
- Quick design search
- Pump curve previews
- Associated catalog documents (typical specs, setting plans, cutsheets)
- Plot multiple design points
- Total TDH calculator
- Cost analysis program

CD hard copies and a downloadable version will be available soon.



Pentair Water

Catalogs | Manual Selection | Design Point Search

Primary Criteria | Advanced Criteria | Total Head Calculator

Rated Design Point (Change Units)

Flow rate * 10000 US gpm

Total head * 200 ft Calculate

BEP no preference

Near miss % of head

Types & Speeds

Pump types: Vertical Turbine

Speeds: 3600, 1800, 1200, 900, 720, 600, 515

Select All

Range charts, type notes, and other product information

Fluid & NPSH

Water at 60°F Change Fluid

NPSHa ft Calculate

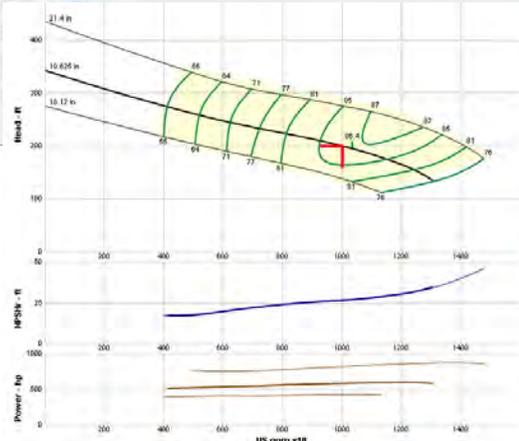
Margin ratio

Motor

Standard

Enclosure

Sizing criteria



Submit your selection to Layne Verti-Line.

Pump

Type: Vertical Turbine

Size: 30GM (2 stage)

Speed: 1100 rpm

Diameter: 19.625 in

Redraw Reset

Display options

Manufacturer settings

Custom

Multiple Pumps

Number of pumps: 1

Parallel Series

Multiple Speeds (rpm)

600 rpm - 1200 rpm

Catalogs | Manual Selection | Design Point Search | Search Results

Selection List

The following pumps meet your primary search criteria. Pumps that are flagged do not meet your 'Curve' page for more information about criteria that flagged pumps do not meet.
Click on the pump row to select a pump. Click on a column header to sort the list.

Design Point: 10000 US gpm, 200 ft.

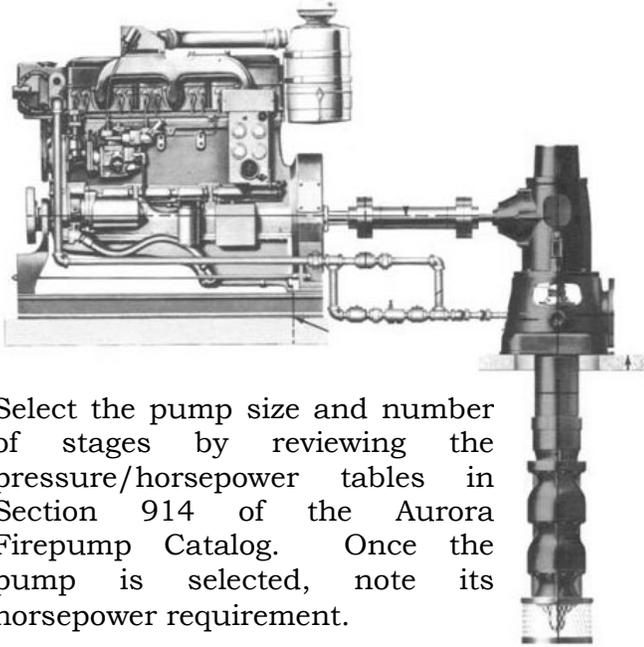
Preview	Type / Size	Speed	Dia	Head	Eff	BEP	NPSHr	Power
	Vertical Turbine 30GM 2	1180	19.625	200	85.9	86.4	26.6	587
	Vertical Turbine 30GH 2	1180	19.3125	200	85.7	86.3	28.1	590
	Vertical Turbine 27EM 2	1170	16.875	201	85.3	85.4	19.2	594



Technical Q&A

Question: How do I size diesel engines for vertical turbine firepumps?

Answer: Pump HP + Gear Loss + Elevation & Temperature Derates.



Select the pump size and number of stages by reviewing the pressure/horsepower tables in Section 914 of the Aurora Firepump Catalog. Once the pump is selected, note its horsepower requirement.

Next, add in the horsepower loss thru the right angle gear. Typical gear loss is 4% up to 250 hp, and 5% for 300 hp and greater.

Then determine elevation and ambient temperature derates for the engine. Elevation derate is 3 % per 1000 ft above 300 ft altitude. Temperature derate is 1 % per 10 degrees F above 77 degrees F ambient temperature.

Firepump Estimate Sheets

Now available are electronic estimate sheets for pricing electric and diesel vertical turbine firepumps. Developed by Carolyn Crews, Manager of Order Entry for Pentair's Kansas City Plant, these estimate sheets contain the most up-to-date pricing and available options. Selections are made by using drop-down boxes, with associated pricing automatically calculated.

Finally, it's a matter of selecting an engine that will produce enough net horsepower to drive the pump and gear.

Example: 2500 GPM @ 100 psi (discharge)
10 ft of lift = 241 ft bowl head
1500 ft elevation
90 degrees amb temp

From Section 914, page 314:
241 - 250 ft => 15FGH 3 stage, 214 BHP

Add in gear loss (4 %): 214 HP x 1.04 =
223 HP required to drive the pump & gear

Elevation derate: $\frac{1500 - 300}{1000} \times 3 \% = 3.6 \%$

Temp derate: $\frac{90 - 77}{10} \times 1 \% = 1.3 \%$

From Section 914, page 8 (price pages)
Example selection - Cummins CFP83-F30
Rated 252 HP @ 1770 rpm, but after derates:

$252 \times (1 - 4.9 \%) = 252 \times (.951) = 239 \text{ HP}$

Since the usable engine HP of 239 is greater than the required 223 HP to drive the pump & gear, this engine will work.

The latest versions of the estimate sheets are:

Rev 09 10-1-06 VTFP ELECTRIC-AURORA
Rev 09 10-1-06 VTFP DIESEL-AURORA

If you are an Aurora firepump distributor and would like to receive these estimate sheets and updates, please send an email to:

carolyn.crews@pentairwater.com

KC Plant – Car Show

Winter is about here, so let's look back at one of the fun events that took place during the summer at Layne / Verti-Line.

Celebrating Pentair's 40th Anniversary in July, the Kansas City plant hosted a BBQ lunch and car show for the employees. Morning rain couldn't hold back the variety of cars, trucks, motorcycles, and even tractors that turned out for the event. Employees voted for their favorite showing with prizes going to the winners.



Tom Hoffman, Manager of Pump Services Group, displayed his grandfather's 1926 McCormick Deering 15-30 tractor.



Jay Crawford, Product Engineer, won first place with his 1966 Pontiac GTO



Daryl Palmer, Sr. Field Service Coordinator, showed his 1978 Ford F250 with custom scenic paint job.



Forrest Capp, Night Supervisor, won second place with his 2006 Iron Horse Outlaw.



Steve Squire, machinest, took third place exhibiting his 1973 Chevrolet Camaro Z28.