

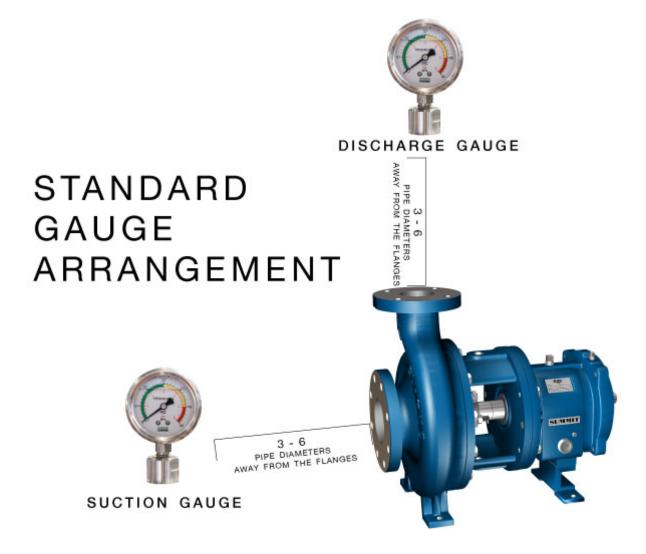
Yes! Yes, we do.

First, please pardon my paraphrasing of classic movie quotes. However, I think it is a great analogy when talking about gauges in pump systems. Depending on who you talk to ... Some people think gauges are extremely important to the overall efficiency of the system, but others do not. As an OEM pump manufacturer we know that gauges can be almost as important as the pump itself for creating an efficient and reliable system.

As a daily life example; Most of us would not drive a car without the basic gauges for speed, fuel, temperature and oil pressure. So why would we risk a multi-million dollar production system with no way of knowing how and where the pump operates or have the ability to troubleshoot it.

The Hydraulic Institute publication, *Optimizing Pumping Systems* states, "A pump system with no means of measuring flow, pressure or power is an inefficient pumping system". Unfortunately, in many cases gauges are not often specified for a pump project or supplied at the time of installation due to cost constraints. In many cases, an up-front investment of a few hundred or even a

few thousand dollars can save tens or perhaps hundreds of thousands of dollars down the road.

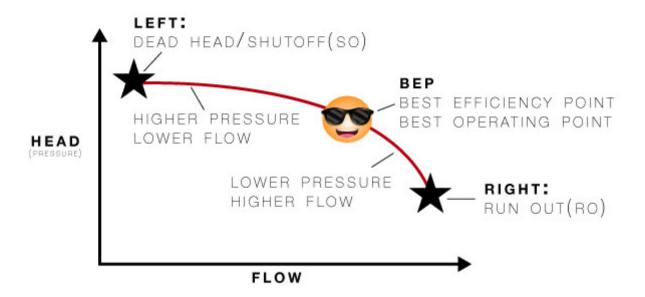


One of the best ways to monitor pump reliability is to install two pressure gauges. One on the suction side and the other on the discharge side. With the pump curve in hand and knowledge of the speed and impeller size, the gauges will tell you exactly where and how well the pump is performing. If the pump is not on the curve refer to this article for more information.

All of us in the pump industry should be familiar with reading pump curves and we know that pumps have specific areas of operation. These areas have descriptions like; Shut Off, RIGHT or LEFT side of the curve, Run Out and *Best Efficiency Point* (BEP). If the pump is "running left" on the curve, this simply means that the pump is delivering relatively higher pressure and lower flow. "Running to the right" means a higher flow rate, but a decrease in discharge pressure. **BEP** is the point of optimum flow and efficiency. The bottom line is that without gauges you will not know where the pump is operating. Oftentimes

a gauge reading is a more accurate performance indicator than a flowmeter.

SIMPLE PUMP CURVE



Here are a few scenarios on why using gauges is important in maintaining and troubleshooting a pump.

- 1. Readings from both the discharge and suction gauges are a useful tool because the difference in pressures is proportional to the total head.
- 2. The pump will operate where the system curve intersects it. Your estimate of where that point truly is may be off.
- 3. A shutoff head test will provide useful information in relation to the pump's health.
- 4. Static readings are useful in detecting a leak in the suction or discharge.

One last note: I frequently see gauges installed directly on the pump flanges; while a common practice this is not always the best location. For gauges to provide an accurate reading the gauge taps should be installed close to the pump, but preferably at a minimum of 3 to 6 pipe diameters away from the flanges.

If you don't measure it, you can't manage it.

John Tombjenovic & The Summer Pump Team







Parts to FitGoulds Morris JC

Make pump repairs fast & easy with the Summit[™] replacements in stock.



See Inventory >







Download & Print

Jim Elsey's Pumps and Systems Articles

Learn More!

We are your Best Value by "providing quality pumping products in a timely manner, at a fair market price."

