

PUMPING NEWS

Giant Industries Newsletter April 2018

Hydrostatic Testing

It's No Pipe Dream

According to Forbe's Magazine, over the last decade oil production in the United States nearly doubled and natural gas production rose by about 50 percent. Along with this increase is the demand for additional pipelines for product delivery.

As part of the pipe manufacturing process, hydrostatic testing helps ensure the pipe will maintain safety standards and durability over time. Hydrostatic testing is basically filling a piece of pipe that is that is sealed at both ends with a fluid until a determined pressure is achieved for an amount of time to adhere to a set of safety standards.

In the past, hydraulic fluid was used because inexpensive hydraulic pumps could be utilized to build the pressure. Hydraulic fluid however, compresses about 1/2 percent for every 1000 PSI increase in pressure. This creates a "spongy" effect as the fluid "gives" or compresses which is not desirable. Fortunately, water is virtually incompressible allowing a very direct pressure rise without any give due to compressibility.

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Giant Industries looks forward to serving you, so that we can help you achieve your goals.

- Ed Simon, President



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26 GPM up to 6000 PSI skid

It's No Pipe Dream

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With the use of water for hydrostatic testing, hydraulic pumps which require lubrication for proper operating, are no longer a durable choice. Giant plunger pumps, on the other hand, make their living pumping high pressure water and have logged thousands of hours pressurizing pipe on hydrostatic test units.

Oil Field Pipe

A customer came to Giant Industries with a problem many companies wished they had: more business. With many more pipelines being built, they had to dramatically increase production. For this customer, the increase in business became a problem. One hundred percent of all pipe they sell is tested. With their current setup they could not keep up with demand.

Issue: Add capabilities to their existing production setup. Increase the amount of pipes they can test in a day. Add a solution to allow for testing of multiple diameter size pumps with different flow and pressure combinations. Smaller pipes are tested to a higher PSI and lower flow. Larger pipes are tested to a lower PSI but need to be tested with a higher flow of water.

Solution: Giant Industries created two solutions for this customer.

The first unit installed was a Giant GP8140 pump with a 125 horsepower electric motor delivering 26 GPM and up to 6000 PSI. This system is testing oilfield pipe before it leaves the manufacturing plant. (above photo)

The second unit installed was a Giant GP8055 pump and motor unit delivering 60 GPM and up to 3000 PSI. This system is testing larger pipes with a higher flow and lower pressure. (photo at right)



60 GPM up to 3000 PSI skid

Giant Brings Mobile to Hydrostatic Testing

Giant Industries is proud to introduce a mobile solution to hydrostatic testing. This compact unit fits in the bed of a pickup truck making it portable. This custom created unit base allows it to be lifted into a pick up truck with a forklift.

The diesel engine allows the unit to be used anywhere in the field. There is an emergency stop button which will shut down the unit immediately if there is an issue.

The portability of this unit makes it usable for a variety of applications. Along with hydrostatic testing of pipeline this unit is also capable of testing valve stations.



Mobile truck bed unit-up to 15,000 PSI

Testing on the Go

Once the pipe is installed as a pipeline it is then tested to ensure proper welding and installation. A Giant customer was struggling with a very real, common problem in the oilfield. How to improve the ability to hydrostatic test pipes in the field where terrain and environment impede the company's ability to get close to the pipe? They wanted a creative solution to pumping water long distances from the road where larger units cannot leave while keeping the same perfomance.

Issue: Create a unit that is portable and capable of delivering the same capabilities as a larger flatbed unit.

Solution: A mobile unit was created that fits in the bed of a standard pick up truck. The base of this unit is compact enough that it can be placed in a truck bed. This allows the unit to be transported over rough terrain. Any terrain that a pick up truck can handle.

It has a Giant GP5116 pump which is driven by a diesel engine mounted on a custom frame. This unit can achieve pressures up to 15,000 PSI at a flow rate of 4.6 GPM.

We Take Safety Seriously

Giant Industries employees are a safe bunch. They make it a priority to follow all safety regulations and procedures. Because of this Giant Industries is proud to announce that we have made it 5 years without a lost time accident! Congratulations to a team of professionals that not only are about the quality of work, but also making the work environment a safe place to work.



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