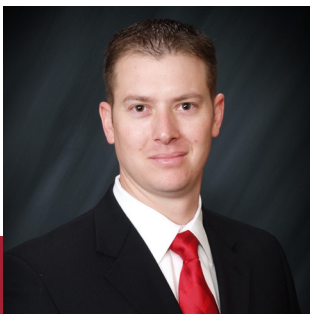


KEY CONSIDERATIONS BEFORE INVESTING IN NEW FRAC PUMPS

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After several lean years, fracking activity is finally on the rise again. In fact, according to an International Energy Agency (IEA) forecast released earlier this year, U.S. oil production is expected to increase nearly 30 percent to 17 million barrels a day by 2023 with much of that growth coming from oil produced specifically through fracking in West Texas and other shale plays.

Throughout the slowdown, many oilfield service companies understandably maintained their aging fleets by applying bandages rather than investing in new equipment – that is certainly true of pressure pumping equipment used in fracking. However, with more optimistic projections, companies now have to decide whether their 2019 budgets will include capital investments in new pumping equipment. There are several important considerations that should factor into a company's decision to procure new pumps.



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HOW OLD IS YOUR EXISTING PUMP OR FLEET?

A high-quality pressure pump is a workhorse that can last for years, but even the best pumps will begin to show signs of “fatigue” as they age. Not only does a pump's performance diminish over time, but as aging pumps decline, they will begin to experience structural fatigue, leaks, and increased maintenance. Patching significant issues is not only costly, but the necessary repairs take a pump out of service for several days, leading to costly downtime. And while repairs might buy a pump some time, they won't hold up indefinitely – eventually the pump will crack, literally. When a pump is pushed to its limit, a catastrophic failure, like a crack in the pump's critical components, such as frame, crankshaft or gears, is inevitable.

IS REFURBISHING THE FLEET A VIABLE OPTION?

When a fleet is stocked with newer quality pumps, refurbishing those pumps is an obvious and sound alternative to replacing the gently-used equipment. Certainly reconditioning a pump once (maybe even twice) is practical, but at some point, the principal of diminishing returns takes effect and investing in further reconditioning of older equipment is no longer the most optimal economic option. For starters, a pump that has been refurbished multiple times is incapable of performing at the same level a newer pump can, but perhaps more importantly, that refurbished pump will demand more frequent maintenance. And just like owning an older car, warranty protections and service guarantees that were associated with the pump when it was new will have expired, so any required maintenance will be more expensive.

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COULD NEW PUMPS HELP STANDARDIZE YOUR FLEET?

Maintaining a fleet comprised of various brands of pumps can be tedious – each pump requires separate parts and maintenance procedures. Despite that, piecemealing a fleet of pumps is still a common practice among oilfield service companies. When budgets permit; however, a company can benefit tremendously by standardizing its fleet. Standardization allows companies to order and stock frequently-used consumable parts, resulting in lower inventory levels. In addition, companies can systematize their maintenance procedures and training for greater efficiency and less downtime.

IS DOWNTIME BECOMING EXCESSIVE?

Could your fleet be causing undue downtime? Like a lot of things, frac pumps get “sloppy” as they age – they don’t run as smoothly or efficiently as they did when they were young and spry. When a pump is strained, its consumable parts – its valves & seats, plungers, packing and other components – begin to wear more quickly and thus require regular replacement or maintenance. And maintenance time means downtime. Routine maintenance is expected and is budgeted within a project’s overall pumping costs and the downtime planned for accordingly. However, if aging pumps begin to require excessive maintenance or unexpected repairs force unscheduled downtime, operators are likely to become aggravated by unplanned delays and cost overruns.

DOES YOUR COMPANY NEED A HIGHER PERFORMING OR MORE FLEXIBLE FLEET?

Not only will a new pump require less frequent maintenance, but new pumps are built to perform with more efficiency than the legacy pump models. For starters, newer pump designs have a longer stroke – 11” compared to 8” – which delivers greater flows at lower rotations per minute (RPMs). When a pump runs at a lower RPM rate, its consumables experience less wear and tear. Needless to say, longer lasting consumables reduces both maintenance cost and downtime. Newer pumps are also being engineered with greater horsepower, thus making them more durable for the severe duty pumping applications seen in today’s markets. Higher horsepower capability means that the same fleet an oilfield service company uses in the Eagle Ford and Permian shale plays, can now also be deployed to the Haynesville shale play. Being able to transport a fleet between plays provides oilfield service companies greater flexibility.



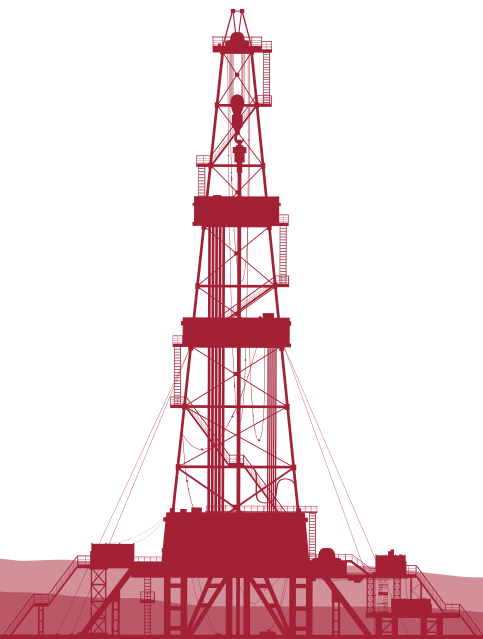
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ARE YOU PUSHING YOUR EQUIPMENT BEYOND ITS LIMIT?

Purchasing new pumps is similar to buying a new family car. Like new cars, pumps are big ticket items that require a significant capital investment, so making such a large expenditure should never be an impulsive or spur of the moment decision. The purchase requires careful consideration, research and planning. If a service company can get more miles out of its existing fleet without its pumps requiring constant maintenance or threatening to break down on the side of the road, then replacing the pumps now may not be the most practical option. However, running equipment beyond its limit is unacceptable in the oilfield where safety and reliability is critical. If a company's older pumps could jeopardize a frac site's operations in any way, then it is time to bite the bullet and invest in new pressure pumping equipment.



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