HPump surface pumping systems in midstream oil and gas applications

Improve uptime, reduce environmental impact, and reduce costs

HPump™ surface pumping systems from Baker Hughes provide solutions across the midstream sector of the oil and gas industry for applications such as pipeline transfer, treatment, and storage of petroleum products. Pipeline boosting and transfer pumps can be used to move crude oil from production sites to refineries and deliver the various refined products to downstream distributors. Other midstream pumping operations may include natural gas processing plants that purify raw natural gas and that remove and produce elemental sulfur and natural gas liquids (NGL) as finished end-products.

HPump systems provide a highly reliable, efficient alternative to other surface pumping options. They provide broad pressure and flow capabilities ranging from 250 to 130,000 BFPD with horsepower ratings up to 2,500 hp. This economical alternative to split case, positive displacement, and vertical turbine systems, provides a low-maintenance solution for fluid transfer. The HPump system uses proven **CENtrilift™ electrical submersible pumping (ESP) system** technology to deliver leak-free, low-noise fluid transfer. The multistage centrifugal pump is combined with a horizontal thrust chamber (HTC) and an industrial foot-mounted electrical motor to provide a rugged, skid-mounted system. HPump systems are easy to build and deploy—reducing lead time—and components can be easily changed out as needed to improve uptime.

With global fulfillment and maintenance capabilities, HPump systems provide a cost-effective solution regardless of location. These systems are durable, simple, and easy to maintain. After thousands of installations worldwide, customers routinely report up to 65% reductions in lifecycle costs.

The electrical motor is efficient, helping reduce emissions. And solid, vibration-resistant construction reduces leaks and reportable spills, resists corrosion, and handles solids and abrasives reliably. HPump systems are quiet compared to other surface pumps, and can be painted to blend in to the surrounding environment. The skid-mounted systems can also be housed in enclosures, on trailers, or out in the open, and are easily moved.

The proven multistage pump is rated up to 6,250 psig (with a wide flow range from 250 to 130,000 BFPD). And the rugged HTC design can handle

Applications

- Fluid boosting
- Fluid transfer
- Chemical treatment

Benefits

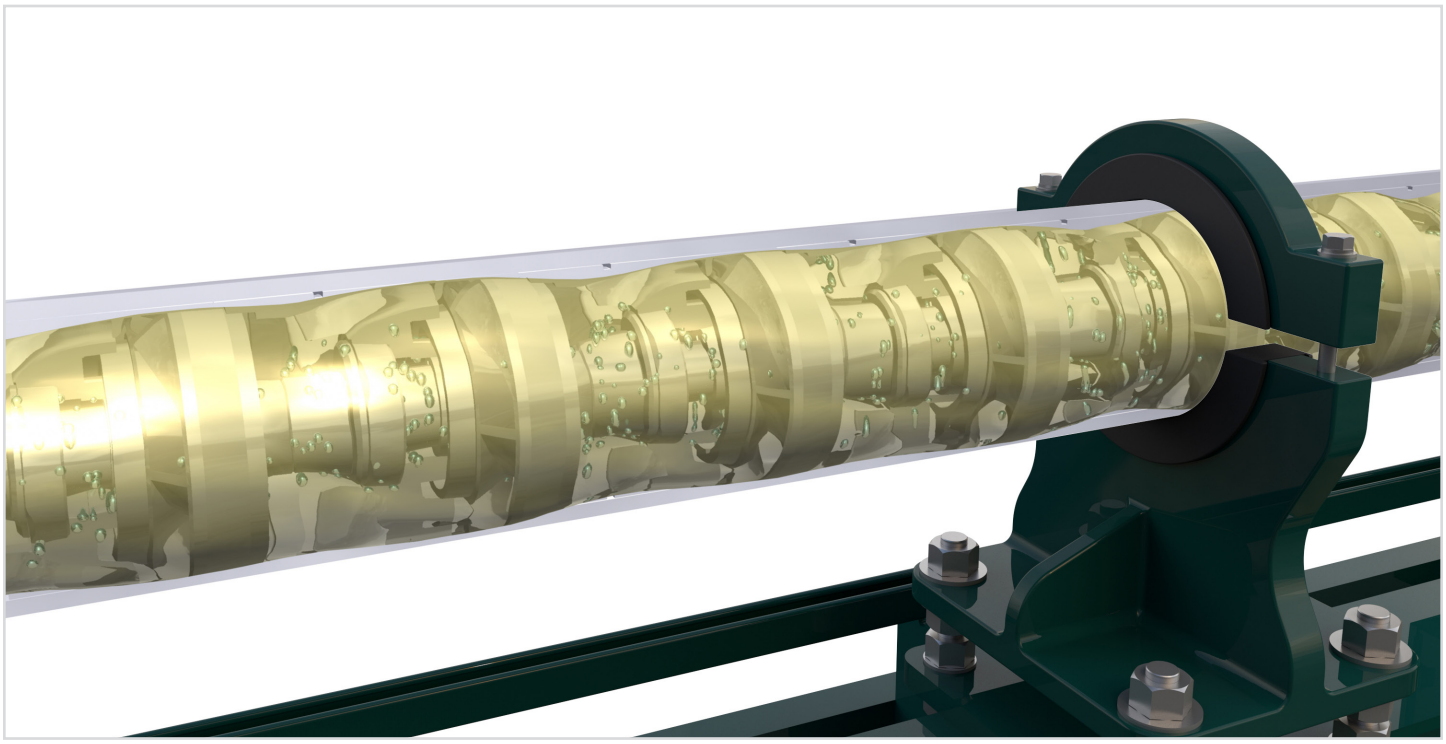
- Reliable, low-maintenance components
- Broad operating range
- Low-vibration design
- Cartridge seal design
- Abrasion-resistant technology and corrosion-resistant materials

broad temperature variations in harsh environments. HPump components can handle solids and abrasives with abrasion-resistant materials and technology, and stage coatings help prevent asphaltene and scale buildup.

As production rates ebb and flow, so do the requirements for transferring fluids. It is not uncommon for pipeline operators to need to add capacity, or to make adjustments for lower volumes and flow rates, as the market changes. The HPump system's broad operating range reduces the need to change out pumps over the life of a pipeline. And adding the Baker Hughes **Electrospeed™ Advantage variable speed drive** provides precise control to improve performance and increase the operating envelope. This level of control extends system life and further reduces life cycle costs.

In addition to providing significant equipment savings, the HPump system has fewer moving parts, resulting in less maintenance and downtime compared to other surface pumping equipment. And the short delivery times compared to positive displacement and split casing pumps means you can start moving fluid—and earning revenue—faster.

Contact a Baker Hughes representative today to find out how HPump systems can help you significantly improve uptime, protect the environment, and reduce costs whether you are pumping water, CO_2, or hydrocarbons.



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