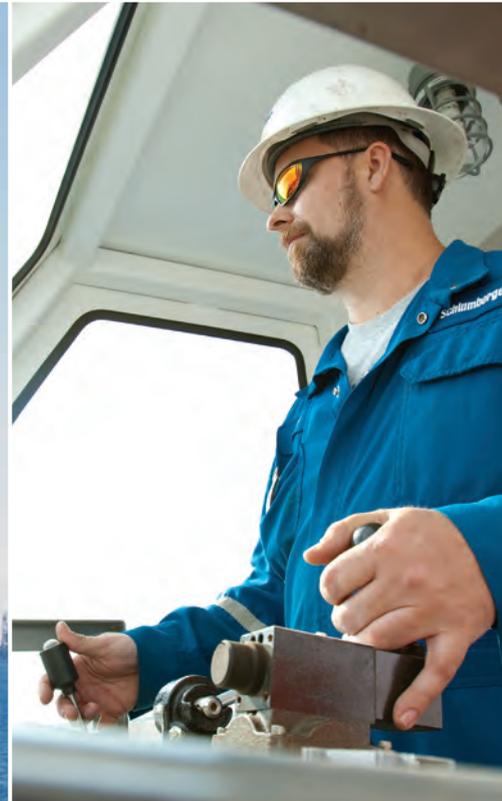


Schlumberger



FlexSTIM Pronto

Modular, portable, flexible
offshore stimulation equipment



ADVANTAGES

- Eliminating need for dedicated stimulation vessel lowers costs
- Modular design increases flexibility
- Reduced number of required lifts improves safety
- On-the-fly mixing capability minimizes footprint by eliminating extra equipment

APPLICATIONS

- Offshore environments where conventional stimulation vessels are not readily available
- Fracturing, acidizing, gravel packing

FEATURES

- Provides flexibility through modular design
- Can be rigged up or rigged down in 7 days
- Fits in open deck space of 45 ft × 145 ft
- Offers new skid designs that can be used separately from the overall package

An Efficient Offshore Stimulation System

The FlexSTIM Pronto offshore equipment system is a modular offshore stimulation package that can be placed on any supply vessel, overcoming technical, logistical, and operational challenges in remote offshore locations.

Eliminating the need for a dedicated stimulation vessel saves time and costs for the operator, who does not have to wait for a dedicated vessel to travel to a remote location. The same vessel can then be used as a conventional supply vessel.

FLEXIBLE MODULAR DESIGN

FlexSTIM Pronto equipment consists of a control tower and equipment skids that fit inside an open deck space of 45 ft × 145 ft, with a diesel engine as the prime mover. A subframe attaches to the deck of the vessel to which the skids are attached using container locks.

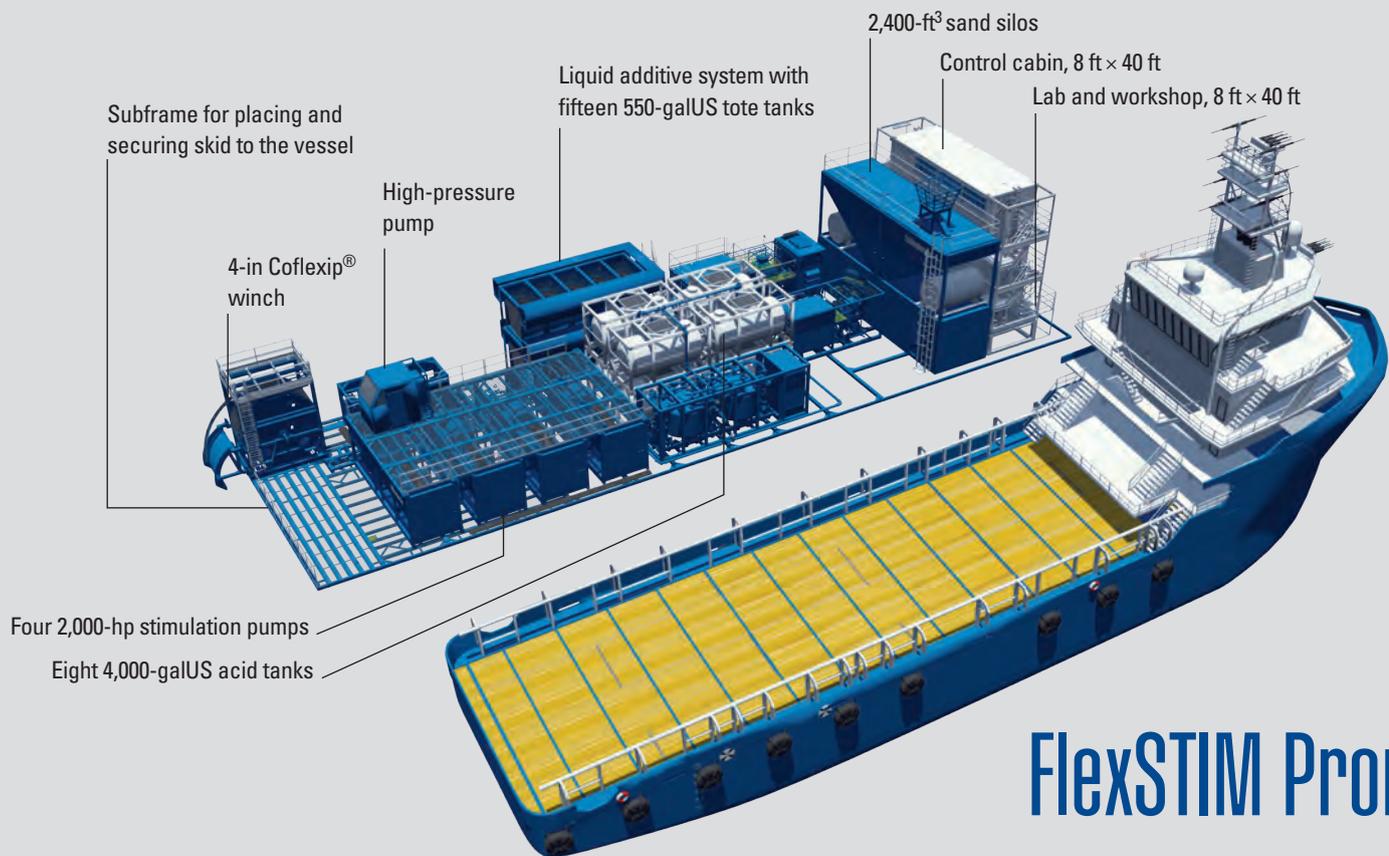
The system includes new skid designs that can be used independently. Equipment skids include a stimulation blender, a hydration unit, an acid blender skid, a liquid additive system, and a sand silo. Within the control tower are the control cabin, office space, a laboratory/shop, and storage. The recording cabin with the FracCAT* recording system can perform remote display transmission with the supply vessel satellite system. Piping and wiring are based on the vessel's configuration.

RAPID DEPLOYMENT, SERVICE QUALITY

The modular, lightweight equipment was specifically designed for offshore use and installation on the back deck of a small conventional supply vessel. FlexSTIM Pronto equipment can be rigged up or rigged down in 7 days while reducing health, safety, and environmental exposure.

Reducing the number of required lifts and eliminating the need for welding enhances the safety and ease of moving the equipment from one location to another.

The efficient and flexible modular design offers the same level of operational quality as a dedicated stimulation vessel. Process control of all equipment by remote control systems from the control cabin helps ensure quality. Treatment modifications can be made in real time to adjust to changing well conditions.



FlexSTIM Pronto

Specifications

Overall length	145 ft
Breadth	45 ft
Stimulation pump	4 SPS-343 (total 8,000-hp pumps, marine cooled) Sand fracturing: 40 bbl/min at 5,000 psi Acid fracturing: 30 bbl/min at 5,000 psi
Stimulation blender	Single vortex mixer (second mixer available on request) Two dry additive feeders Pumps up to 7 lbm/galUS of proppant at 40 bbl/min Pumps up to 12 lbm/galUS of proppant at 30 bbl/min
Hydration unit	Mixes on the fly 150 bbl storage capacity 40 bbl/min of 85% hydrated gel at 20 degC
Acid blender	3–15% HCl up to 30 bbl/min 28% HCl up to 15 bbl/min Two 50-bbl mixing tubs Can be used for continuous mix or batch mix
Liquid additive system	Software controlled 10 liquid additive pumps (1 for extremely corrosive fluid) Fifteen 550-galUS storage units
Material storage capacity	Two 1,200-ft ³ sand silos (complemented by supply vessel bulk silos) 32,000 galUS of raw acid Two 2,000-galUS diesel tanks Dry storage container (dry bulk transfer possible)
Control tower	Control cabin (FracCAT recording system) Office space Laboratory with HPHT rheometer and workshop Storage
Hydraulic reel	Quick disconnect 350-ft Coflexip® hose with 10,000 psi pressure rating



The FlexSTIM Pronto modular design allows equipment installation in 7 days on a standard Bourbon GPA 670 vessel.

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Modular, portable, flexible
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Innovative Solutions from Schlumberger

Remote offshore locations present technical, logistical, and operational challenges that call for readily adaptable alternatives to conventional stimulation vessels. Schlumberger combines industry expertise, innovative technology, and a commitment to service delivery to help our customers overcome these challenges and increase well production. Our FlexSTIM Pronto modular equipment is a flexible, efficient, and cost-effective choice for operators drilling in remote offshore locations where dedicated stimulation vessels are not readily accessible or available.

Process control of all equipment by remote control systems from the control cabin helps ensure quality.

KEY FEATURES

- Easy installation and removal
- Modular design
- Process control including on-the-fly mixing of fracturing fluids and acid systems
- Quality service delivery

www.slb.com/stimulation

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