

FlexSTIM

Modular offshore stimulation system

APPLICATIONS

- Acid or hydraulic fracturing stimulation operations
- New wells for initial stimulation
- Mature wells for revival and enhancement

BENEFITS

- Increases availability of high-quality offshore stimulation
- Improves flexibility in operations and logistics

FEATURES

- Can be built on any supply vessel and tailored to meet job capacity and horsepower requirements
- Modular design expedites deployment
- Acid and proppant storage, and horsepower can surpass conventional stimulation vessels
- Proprietary fastening systems and knowledgeable project managers ensure system designs meet regulatory requirements for each application



The FlexSTIM system turns a standard supply vessel into a powerful, high-capacity stimulation platform.

To reduce the wait for offshore stimulation services, the FlexSTIM* modular offshore stimulation system adds pumping capacity and flexibility by transforming any supply vessel into a fit-for-purpose stimulation platform.

Operators can select proppant and acid storage capacity and pumping power to suit their needs. For a 9,688-ft² [900-m²] deck area, the modular system can be designed to supply acid capacity of up to 160,000 galUS [606 m³], proppant storage of 12,600 ft³ [357 m³], and up to 13,500 hhp [10,072 kW], surpassing many purpose-built stimulation vessels in capacity and flexibility.

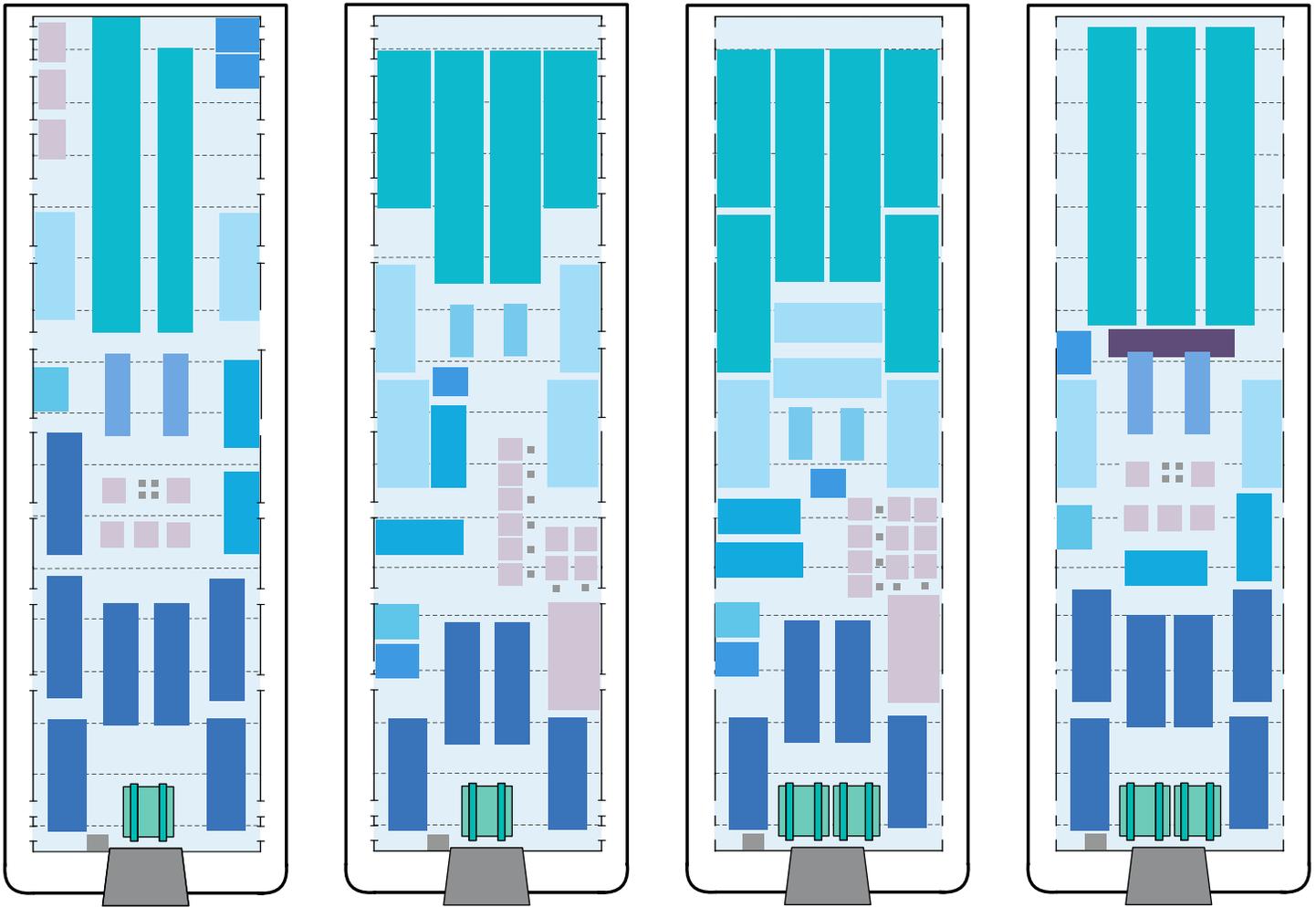
The high capacity can improve offshore logistics, eliminating NPT for waiting and for loading chemicals and sand.

Careful planning and engineering form the basis of this innovative solution. In many areas, common components of the FlexSTIM system are available on short notice. Additional equipment and personnel can be transferred from around the world to make each project a technical and operational success.

Schlumberger has used the FlexSTIM system to deliver customer projects on time and within budget constraints in challenging environments including the North Sea, West Africa, the Gulf of Mexico, Middle East, India, and the South China Sea.

Our experience with design and operations expedites the turnaround from concept to job. In one field example, the project went from design to system installation to stimulation job commencement in less than 30 days. Large-scale testing is conducted to qualify all equipment before mobilization.

This supply vessel-based campaign opens new doors, increasing access to stimulation services around the world. Revival and enhancement of these fields can change the dynamics and economics of offshore operations.



Configuration 1

Configuration 2

Configuration 3

Configuration 4

The modular system can be laid out and components added or eliminated to suit operators' stimulation requirements.

FlexSTIM System Specifications

Type	Purpose-Build	Modular			
Vessel	BIGORANGE XVIII	Configuration 1 [†]	Configuration 2 [†]	Configuration 3 [†]	Configuration 4 [†]
Max. pumping power, hhp [kW]	12,500 [9,326]	8,900 [6,640]	6,000 [4,476]	13,500 [10,072]	13,500 [10,072]
Max. treatment rate, bbl/min [m ³ /min]	70 [11]	40 [6]	40 [6]	70 [11]	70 [11]
Max. treatment pressure, psi [MPa]	10,000 [69]	10,000 [69]	10,000 [69]	15,000 [103]	15,000 [103]
Proppant blending rate, bbl/min [m ³ /min]	70 [11]	40 [6]	N/A [§]	70 [11]	70 [11]
Storage capacity					
36% acid, galUS [m ³]	180,000 [681]	N/A	110,000 [416]	160,000 [606]	N/A
Deliverable proppant, ft ³ [m ³]	15,400 [436]	6,800 [193]	N/A	N/A	12,300 [348]

[†] Real-world project configuration

[‡] Possible capability with current design for 9,688-ft² [900-m²] deck area vessel

[§] Not applicable

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