

Robust chokes increase production and uptime at platform in the Gulf of Mexico

Case study facts

Location: US Gulf of Mexico

Customer: Confidential

Time frame: March–July 2016

Results:

- Long-lasting, reliable chokes increased production and reduced downtime
- The operator replaced all competitor chokes with our production chokes, as well as injectors and glycol injectors
- Expedited delivery because of the inventory in our Houma, Louisiana, manufacturing facility

Background

An operator had to continuously shut in production at its spar platform in the deepwater US Gulf of Mexico due to issues with a competitor's multistage plug and cage chokes. High levels of sand production cut and eroded the trim and plugged the chokes, increasing costs and downtime.

Solution

NOV designed, engineered, and manufactured 10 MPC-30 chokes with a 1.5 in. external sleeve and stepper actuators in 12 weeks. Our expert engineering team in Houston chose a lower capacity and smaller tungsten carbide trim so the choke had to open more, increasing the service life by providing more material to wear.

The robust, solid tungsten carbide external sleeve enables four pressure drop stages, mostly from impingement, to improve flow control and durability. Plus, the lower capacity and higher velocities remain inside the trim; therefore, the trim is easier to maintain and replace in the field. A compact stepper

actuator reliably controls the opening and closing of the choke, optimizing flow control and protecting the downstream equipment.

Since our manufacturing facility in Houma, Louisiana, had some of the parts and materials in stock, we were able to expedite the choke delivery.

Results

Due to the durability and reliability of our proven chokes, the operator has increased production and reduced downtime from the platform. In addition, the operator has replaced not only all their production chokes with our chokes but also the injectors and glycol injectors on the spar platform.

