

SUPERCHOKE[®] high-pressure drilling choke control system

Provides precise well pressure control for underbalanced and managed pressure drilling



Pressure:

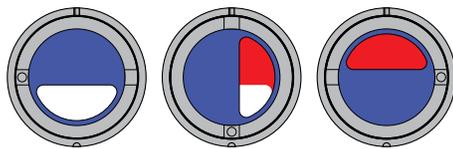
Handles 5,000 to 15,000 psi
[345 to 1,034 bar]

Applications

- Well kicks
- Well tests
- Well cleanup operations
- Onshore and offshore

How it improves wells

The SUPERCHOKE[®] high-pressure drilling choke control system handles 5,000 to 15,000 psi [345 to 1,034 bar] and is precision engineered for precise well control. Controls can be operated from either remote or onsite consoles.



Open

Half open

Closed

Heavy-duty, diamond-lapped tungsten-carbide plates are honed to a flatness measured by light bands and feature unique, half-moon-shaped orifices. Rotation of the actuator fork allows finite regulation of the size of the opening from full open to full close.

A 17° dead band overlap beyond the full-close position ensures closure even if the plates become worn following extended exposure to abrasives laden fluid flow. Pressure drops or surges don't affect the quality of the seal in the plate-to-plate design; the seal improves under pressure.

Tungsten-carbide wear sleeves increase service life and absorb the effects of abrasive downstream turbulence, especially during underbalanced drilling operations.

How it works

The SUPERCHOKE control console operates hydraulically and is self-contained and skid-mounted for easy installation on or near the rig. Large, easy-to-read gauges monitor critical drill pipe and casing pressure. A choke position indicator shows relative plate opening from full open to full close.

The dual-choke control console also includes a separate valve that enables regulation of chokes from independent hydraulic systems during special applications. An operator has full command of both chokes without switching controls. The dual unit offers all the benefits of the single-choke control console, despite fitting in the same footprint, which simplifies installation.

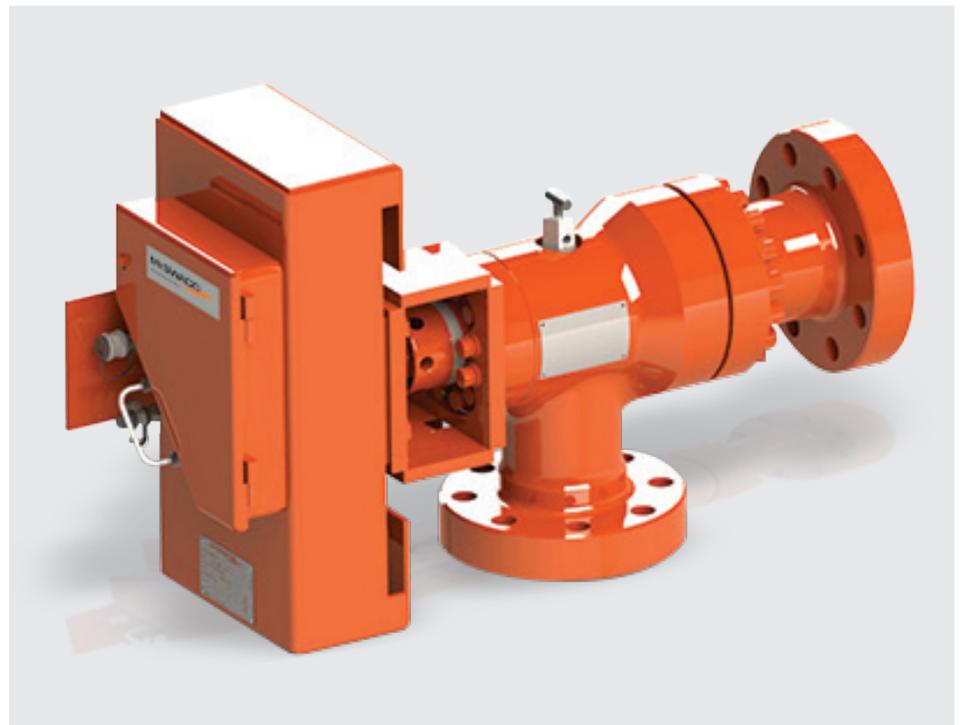
Methods of operation

The system has three methods of operation. Normal operation is rig-air activation. If rig air is lost, activation is manual with a hydraulic pump located on the remote-control skid. If hydraulic lines are severed, activation is manual with the bar provided on the choke indicator head.

Compliance

M-I SWACO designs, manufactures, and monograms in accordance with API Specification 6A, API Specification 16C, and NACE MR0175.

API Specification 16 C is optional. Only the H temperature choke is API Specification 16 C and 6A. The L temperature choke is only 6A.



The SUPERCHOKE high-pressure drilling choke control system delivers precise control in onshore and offshore operations.