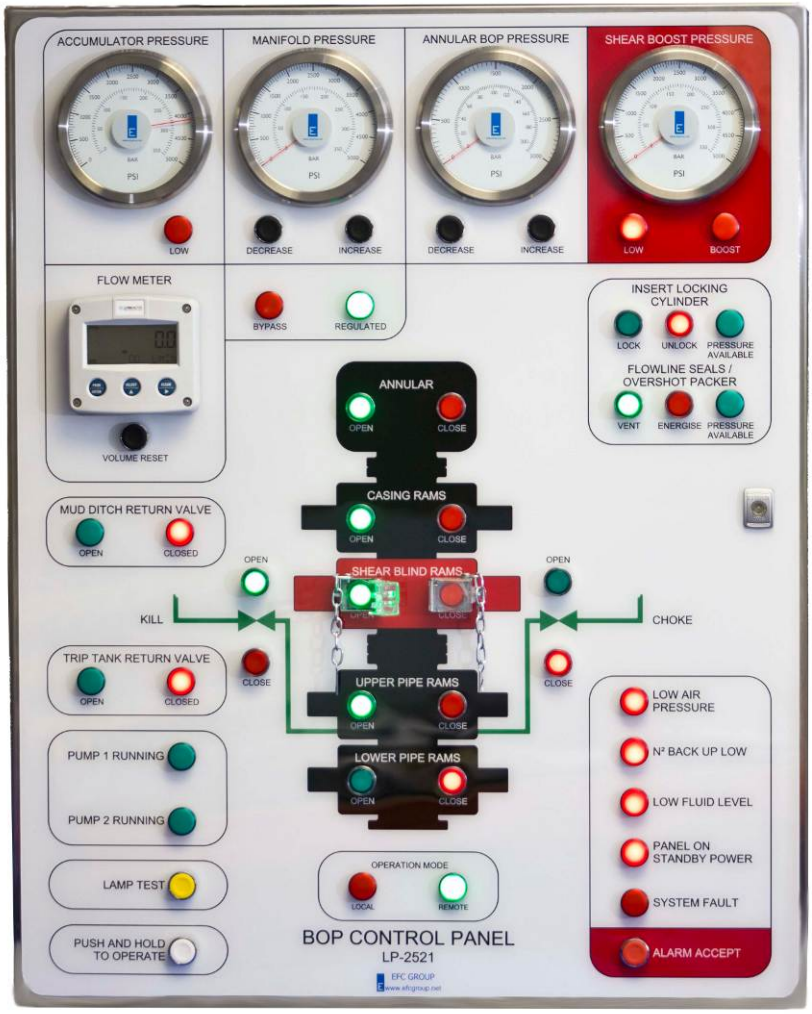
BOP CONTROL SYSTEM



THE EFC BOP CONTROLS IS A ROBUST SYSTEM WITH A CENTRALISED ARCHITECTURE ON A FIBRE OPTIC NETWORK.

The EFC Group BOP Control System is used as a means of control for the Blowout Preventer in order to seal, control and monitor the well. The EFC Group BOP Control System is critical to well control ensuring the safety of crew, rig, well integrity and the environment

The BOP control system provides full functionality from two or more locations, typically drillers & toolpushers panel. A solenoid valve enclosure is included to provide an interface from the electric signals from the remote panel and provide pneumatic or piloted hydraulic signals to the BOP control actuators. An HPU can be part of system supply or it can be limited only to hydraulic control skid.

Subsea Solutions

BOP CONTROL SYSTEM

EFC Group design & manufacture BOP Controls Systems for both surface & subsea stacks. BOP Control projects can both update & convert control systems so they can be readily supported in the future as well as becoming API 16D compliant. Surface BOP Control systems can be API 16D monogrammed.

Systems can include all, or some of these system modules:

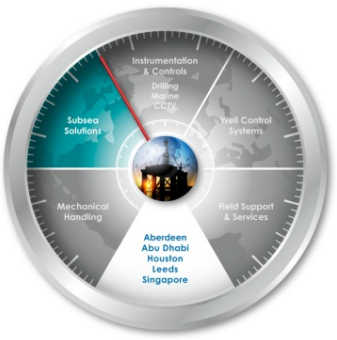
- Remote electric control panel for Driller, Toolpusher, Lifeboat Station
- PLC replacement
- Solenoid pressure switch & transmitter replacement
- Local hydraulic controls interface
- Hydraulic power unit (HPU)
- BOP Alarm status indication for mounting at HPU
- Newbuild BOP Control Systems can include remote data signal hand-off

DESCRIPTION	TECHNICAL SPECIFICATION
Zone Rating	Zone 1, Zone 2 or Safe Area
Operating Pressure (HPU)	3,000psi or 5,000psi.
Operating Temperature	-20°c to +50°c
IP Rating	IP65
Documentation Included	User Manual (UM) & Technical & Certification Manual (T&CM)
Certification	API 16D, ATEX/IECEX, NORSOK & CE Marking as required
	NB: technical data may be subject to change

DESCRIPTION	BENEFITS
Redundancy	Remove any single point failure risk
Fibre Optic Network	Reduces installation cost & provides 'self-healing' capability
Sensor type	Aids preventative maintenance with self test & diagnostic reporting
Electric Panels	Upgrades legacy pneumatic controls
User Interface	Colour BOP mimic and 4" analogue gauges
Safe Operation	Two hand operation plus alarmed covers for critical functions
Warranty	2 years, extendable to 5 years with annual service visits

EXPANDABILITY

- Event logging
- 24/7 remote support
- Shear Boost
- Preventative maintenance condition monitoring
- Touch Screen
- Remote Access
- Portable BOP Test Panel
- BOP Pressure Test Unit



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