



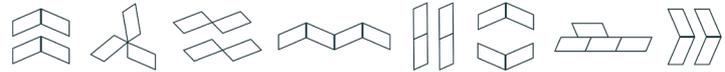
NASeBOP

Acoustic control system specifically designed to meet the demanding needs of mission critical BOP control

NASeBOP is a comprehensive, fully redundant system for emergency BOP backup, performing an emergency disconnect sequence (EDS) if required. Acoustic digital spread spectrum (ADS2) signalling is ideal for long range, high integrity controls.

Multiple user interfaces include a feature packed master station on the vessel, and portable units for emergency control from lifeboats or supply vessels.

A key advantage of NASeBOP is being able to monitor BOP status after an EDS has been completed.



NASeBOP Emergency BOP Controls

Acoustic control system specifically designed to meet the demanding needs of mission critical BOP control



Advantages

- Operate up to 16 functions with readbacks
- Read up to 8 sensor inputs
- 4000 m depth rating
- Control from multiple locations including ATEX Zone 1 for driller operation
- Can be integrated with RS 925 DP reference
- Dual redundancy throughout
- Emergency Response System (ERS) stored off installation for emergency backup
- Supports well safety case by providing independent method to shut in well

Technical Specs

Surface System	Master station including DCU, with SPU and dual redundant PLC modules Driller's EDS control panel (ATEX Zone 1) Dual Power Amplifier and Transducers NASeBOP portable unit (including power supply, transducer, cable, and reel)	
Subsea System	Dual subsea control units plus transducers PBOF hoses	
Depth Rating	4000 m	
Battery Life	2 years, based on operational scenario of system tests every 6 hours	
Interfaces	8/16 solenoid drives, 24 V (2 A) or 48 V (1 A), configurable EDS	
Features	Emergency disconnect sequence. Periodic status reporting for acoustic link, battery, accumulator pressure, solenoid status etc. Operator selection of status polling rates. Event/ data logging for post incident analysis Full alarm monitoring, logging and reporting including acoustic performance logging and statistics	
Compliance	DNV Type Approval, API 16D and 17 E, ABS CDS and ISQM, ISO 13628-6, NORSOK D-001, Petrobras drilling rig unities GTD	
Options	Emergency Response System (ERS) 6000msw depth rating Uninterruptible Power Supply (UPS)	Driller's intrinsically safe operator station Remote Operator's Station (ROS) – touchscreen Remote transducers with 50/100-meter cable