

# Who we are

Subsea company focusing on cost efficient and environmentally friendly products and services/projects.

- Located at Forus/Norway since 2010
- Office, workshop and warehouse
- 30+ employees.
- Extensive technical experience and competency





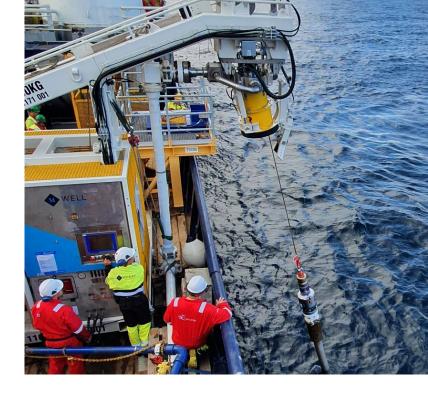


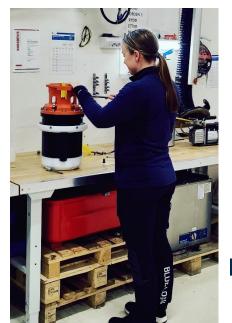


# BLUE LOGIC PHILOSOPHY

- Subsea interface specialist
- High quality industrialised subsea products
- Clean connections zero spill environmental friendly
- Off-the-shelf delivery
- Hands-on engineering, A-Z
- Employees with long subsea experience
- Skilled engineers with offshore experience
- Contributor to subsea standards API 17H
- Flexible; creative solutions based on our standard products









## WHAT WE DO

- Off-the-shelf subsea products
  - Hydraulic
  - Mechanic
  - Electric



E-Sea Webshop

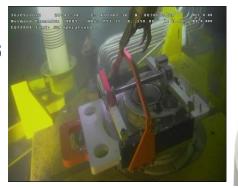


- Rental of standard products
  - Hydraulic / Mechanic / Electric
  - Cost-effective for Client
  - Valuable product feed-back for Blue Logic





- Delivery of bespoke systems and solutions
  - Based on Blue Logic standard components
  - A-Z delivery sketch to offshore support
  - Inhouse assembly and test hands on





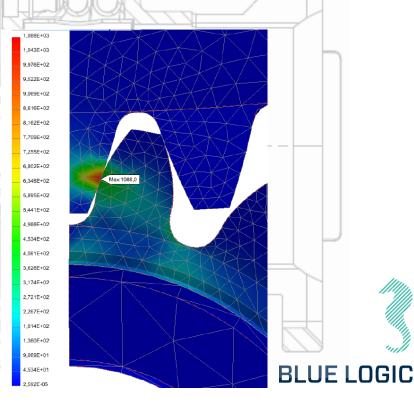


# OUR COMPETENCY

- Engineering
  - R&D
  - Studies
  - FEM analysis
  - Detail engineering
  - Multidiscipline and system integration
- EPCI capability, A Z philosophy
- Product development
- Standard products in stock quick delivery
- Hi-quality rental products
- Qualification of subsea equipment and tools
- Assembly and testing
- Contributor to API subsea standards
- Product Lifecycle Management







# STANDARD PRODUCT CATEGORIES

### 1. Hydraulic Products

- Hot Stabs and Receptacles
- ValveStabs
- Check Valves, Relief Valves, Surplus Valves, Flow and Pressure Control
- Pull-Heads for risers and umbilicals
- Auto Release for well stimulation operations



- Electrical Torque Tools, Class 1-4
- Gearboxes, Class 5-7
- Fail-Safe Actuators
- ROV Handles
- ROV Valve Handles
- MultiDog Lifting connectors, 2 -1000Te

### 3. Electrical Products

- Inductive Connector System for wireless power and data
- Subsea Drone Charging



















### HOT STABS AND RECEPTACLES

Subsea quick-connectors for fluid and gas

- Complete program Ø35 to Ø200, ¼" 10" bore
- 5 000Psi 20 000Psi
- Flow Stabs, Receptacles, Pressure Stabs, Dummy Stabs, Protection Stabs, Parking Receptacles
- Various sizes, 1-6 ports

### Features:

- High flow low pressure drop
- Integrated Check Valves; no leakage no water ingress
- Durable and field-proven seal systems
- Off-the-shelf delivery
- Intervention or permanent service
- Sour service capability







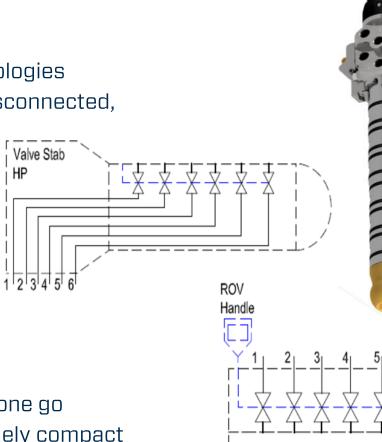
# Blue Logic ValveStab<sup>TM</sup>

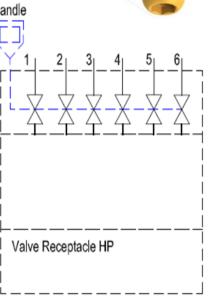
### Hot Stab with isolation valves

- Combining Hot Stab and Ball Valve technologies
- Full working pressure connected <u>and</u> disconnected,
- Double barrier to sea
- ROV or diver
- Pressure balanced connection
- 1-6 ports

### Features:

- High flow capacity, low pressure loss
- No leaks no water ingress
- No check-valve spring force to overcome
- Easy operation open/close all valves in one go
- No need for ROV panel with valves extremely compact subsea solutions







VALVE STAB APPLICATIONS

### **ROV Panel Substitue**

• Receptacle with valves – one unit

Compact – ideal for tooling

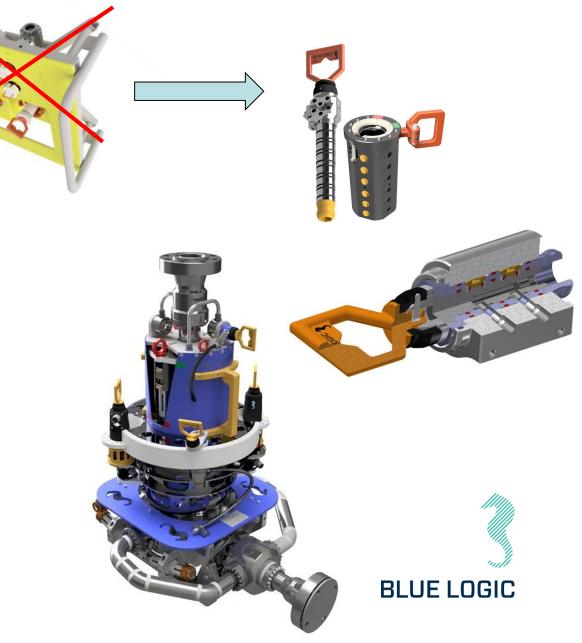
Cost-effective

### Pull Head

- Integrated ValveStab receptacle
- Compact
- High-flow

### Auto Release

- Subsea well stimulation
- Automatic Emergency Quick Disconnect, EQD
- Upon EQD: ValveStab closes both valves



# ACTUATION

### **Electrical Torque Tools**

- Exchangeable Outputs, Class 2 to 4
- Auto-switch High and Low torque mode
- Precise operation
- Full control of all parameters
- Log functionality (all parameters)
- Light weight version drone integration

### Gearboxes & Actuators

- Compact, lightweight Torque Multiplier
- API 17H interface
- 10 to 40kNm output torque
- 50kg submerged weight
- Qualification tested
- Gearbox for permanent installation available
- Fail-Safe Actuators for critical valves





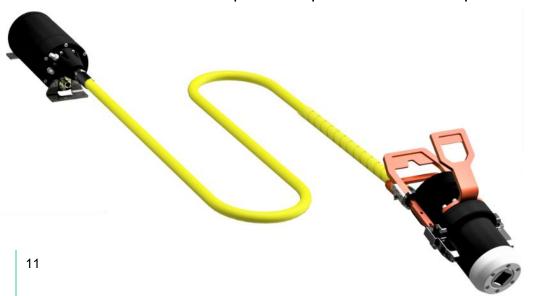






# ELECTRIC TORQUE TOOL - FEATURES

- Precise operation accurate positioning
- No oil spill
- Full control position, speed and torque
- Controlled operation of delicate equipment
- Logging of all parameters create curves for all crucial data
- Ramp up ramp down feature
- Pre-programmable multi-turn operation and sequences
- Fail-safe function auto close/open
- Consistent torque independent of temperature









# **Drone Charging**

 Subsea Docking Station for charging and communication for autonomous drones.

Permanent installation – API17H Qualified Connectors

Charging - 50W, 250W and 2,5kW

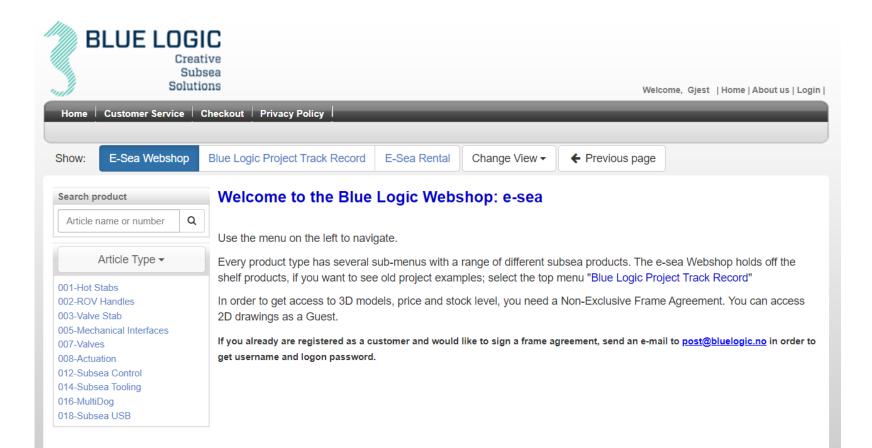
2-Way Data – 80Mbps Ethernet / 230Kbps RS232/RS485





# E-Sea Webshop

- Easy access to technical information for Client and end-users
- E-Sea <a href="https://e-sea.bluelogic.no/">https://e-sea.bluelogic.no/</a>
- Menu-based and categorized for easy navigation
- Download drawings and technical data latest revisions always available





# BLUE LOGIC

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