# Activities underwater hyperbaric



**Specialist in the expertise and maintenance** of underwater equipment



# **Combination** of skills

Active in wind turbine maintenance since 2008, John Cockerill Services has developed a complementary activity of underwater work. With a team of experienced hyperbaric specialists who master interventions in maritime and ionising environments.

John Cockerill Services offers safe, fast and economical solutions while respecting the safety of installations.



John Cockerill Services offers a wide range of specialist services for offshore wind farms of all sizes.

# **Expertise & experience**

Trained and certified by GWO, OPITO BOSIET HUET and NDT inspection, our divers, class II or III mention A, are experts. In the preparation and execution of their interventions. They rigorously apply the requirements of the specifications. Able to intervene 24 hours a day, 7 days a week, they use, for maintenance and expertise operations, they use the latest generation of equipment that meets the strictest safety standards.





# Qualifications

### **Specialists for the offshore wind farms**

- GWO (Global Wind Organisation)
- OPITO BOSIET & HUET and CA-EBS
- IRATA CQP Rope Access
- First Aid and Diver Medic Technician

### **Specialists in non-destructive testing**

- COFREND Magnetoscopy
- COFREND Visual inspection
- COFREND Ultrasound Thickness measurement
- ACFM Cathodic protection certification / marine sector
- CQP Inspection of civil engineering structures

### **Welding specialists**

- Underwater welding certifications
- IWS (International Welding Coordinator)

# A customised offer

John Cockerill Services adapts to the demands of its customers to provide them with a specific and global offer.



### **Installation & Dismantling**

Assistance with the installation of tidal turbines
Installation of submarine and protective cables,
Welding of sacrificial anodes and monitored anodes,
Cleaning of structure and cable for lightening,
Underwater cutting / welding.
Riprap placement
J & I tubes installations
Boat landing installation



### **Underwater inspections**

Underwater inspections:

- Visual and video inspection
- UXO survey, spotting & identification of unexploded ordnance

Non-Destructive Testing:

- CP protection and thickness measurement
- Visual testing (VT)
- Magnetic Particle Inspections (MPI)
- Eddy Current Inspections
- Ultrasonic Inspections



### **ROV Services**

- Underwater visual assistance during installation and maintenance phases Diver assistance
   Deep infra structure inspections
- Sediment sampling
- Water sampling
- NDT Inspections
- Acoustic imaging

### **Repairs & Maintenance**

- Cleaning of tidal turbines, floating structures (SPAR, TLP) or laid structures (single pile, Jacket, gravity concrete)
- Removal of underwater cables and structures (HP cleaning of marine fouling)
- Angle measurement and unloading of tensioned cable anchors
- Reinforcement of structures





### Rope work

- Inspection and testing of structures
- Structural investigations
- Non-destructive testing (NDT)
- Painting works
- Installation and dismantling

# State of the art equipment

Equipped with the latest onshore and offshore equipment, John Cockerill Services offers a wide range of services to its clients in total autonomy on various types of dives, whether immersed or not in polluted, contaminated or unpolluted environments.

### SRP

- 2 x Air quad HP (12 bottles x 50 liters)
- 2 x Diving panels with set of connecting hoses
- Monitors, video and audio recorders, communication stations
- 4 x 120m dive umbilical
- 2 x KM 27 helmets
- 2 x KMB 18 helmets
- 4 x 10 liters diver rescue bottles
- 1 x High pressure electric compressor 25 m3/h-300 bars
- 2 x Medical kit complete with oxygen therapy kit

### **Compact Spread**

- Air system up to 50 meters deep
- Mixed gas system to 75 meters deep
- Dive control container
- Emergency back-up recompression chamber container
- · Containers diving equipped
- Diver Launch and Recovery System (LARS)

### **Backup recompression chamber**

- Mobile hyperbaric chamber transportable on truck or boat
- 20 feet container
- · Fire fighting systems
- Control panel
- Autonomous equipment with its own air production and therapeutic fluid gases
- Emergency electricity, self-powered circuit backed up by an inverter



# **John Cockerill Services references** in wind turbines maintenance



















































## **Contact**

phone: +33 (0)6 12 79 03 96 - +33 (0)6 81 19 64 06 E-mail: services.hyperbaric@johncockerill.com

