

PORTABLE OIL FREE AIR IN ENVIRONMENTAL APPLICATIONS

By Marie Kerrelle & Ian Cass



Our world is continuously evolving, and the overall impact of humankind is continuing to threaten life as we know it today (or perhaps even life as it previously was). To combat this, companies are finding new and innovative ways to continue going about their day-to-day business whilst considering its overall environmental impact. Find out how portable oil free air is being used in environmental applications you have perhaps never considered or even knew anything about.

When we think of oil and gas, we often think of the mega corporations who only have one thing on their mind... making money. Whilst that is in part true, we have seen these conglomerates rapidly change their behaviours to make strides in implementing environmental

practices. Over the last 15-20 years, the number of activities involved in drilling on the seabed has exploded exponentially – from pipeline services to gas exploration and wind farm installations to more. The list is extensive. All these activities can have a potentially negative impact on nature if not conducted properly; however, in recent years, new compressed air technologies have developed to help minimise the overall environmental impact.

Wind farms

One of the activities where drilling offshore is conducted is through the installation of renewable energy such as wind farms. There are numerous ways to install a new wind farm onto the seabed. One of the most common is the use of a monopile to secure the turbine to the seabed.

A monopile is a steel cylindrical tube with diameters ranging up to 6 meters with 150mm thick steel skin. They are one of the most common foundation designs for offshore wind construction due to their ease of installation in shallow and medium depths. The installation of these friendly monsters at sea would naturally result in disturbances of local marine life, especially as these are often within a few kilometres of the shoreline. Bubble curtains are an essential environmental guarantee to marine life during the installation of the wind farm.

Bubble curtain to decrease noise level

Offshore construction noise is up to five times higher underwater than in open air. As humans continue to increase their activities across the ocean floor to create their own forms of energy, the loud sounds of exploration, development and construction send powerful waves that can confuse and harm small and large creatures at sea. Dolphins, whales, sharks and fish to name a few all use gentle sound pulses to communicate about feeding, mating and staying in groups. To tackle this and reduce the overall distress felt by marine life, the use of a bubble curtain helps to attenuate the overall noise released during underwater construction. A bubble curtain is a system that produces bubbles in a deliberate arrangement in water generated by a compressor. This is produced by the release of compressed air being let out under the water surface, commonly on the bottom. As the bubbles rise to the surface, they act as a barrier, or a curtain.

Oil spillages

Similarly, a bubble curtain is also used to contain the potential spread of oil spillages. As the bubbles rise to the surface, they act as a barrier breaking the propagation of waves or the spreading of particles and contaminants. Even in the face of gale force winds, the use of a bubble curtain is still effective in protecting the environment. As the curtain is submerged to a depth of a couple of metres, a boat can run over it, which delivers an obvious advantage during oil-spill recovery operations. Some of the hardware consists of a large grating covered in perforated rubber air hoses that release bubbles generated by a compressor.

Why using an oil free air compressor is important?

The use of Class 0 oil free air allows companies to operate whilst remaining environmentally friendly. A portable oil free air compressor allows flexibility and can be adapted depending on the application requirements; offshore, onshore, containerised and crash framed. As the compressed air is used in the sea water, it is imperative for companies to use environmentally friendly solutions, and the Sullair OFD1550 is the ideal solution to meet these challenges.

Sources:

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