## Case study 701

## Large vessel ventilated during restoration

As the UK's leading provider of ventilation hire equipment, we are very well acquainted with companies operating within a broad range of industries — including refineries and petrochemical applications. Our commitment to working alongside major clients immersed in this field saw us provide a comprehensive ventilation solution for one of the country's largest oil producers.

This commitment was perfectly encapsulated when a huge FPSO (Floating Product, Storage and Offloading) vessel docked in the North East requiring vital modification and life extension. Typically, these are out at sea for months on end and return to land only for short periods – meaning the timeframe for work to be carried out is always very limited. It was our client's intention for this formidable ship (250 metres in length and weighing 53,000 tonnes) to eventually produce oil from an offshore field in the North Sea, with an emphasis on the restoration cycle passing as quickly as possible.

Much of the project involved converting the top deck into a solid platform, and this was done by welding below the upper level to support the structure above. The sheer scale of the work meant that a number of factors had to be considered before proceeding – most notably, fume dispersal. The fact that welding was being carried out at various points within the vessel meant that equipment was required to improve ventilation at several spots, rather than one specific location. With technicians stationed in tanks and other enclosed spaces, it was absolutely critical that sufficient measures were taken to guarantee their safety and wellbeing throughout the development.

In order to instil the necessary conditions and ensure a safe environment for engineers working within the ship's confines, Andrews Ventilation supplied approximately 160 fans which were deployed in targeted areas to assist air movement, extract fumes and provide fresh air for the welding teams. These remained on board for around a year, until the assignment's conclusion, with the vessel in question now ready to be used as a fully functional floating production system.







Air flow (max) 5,100m<sub>3</sub>/h
Power supply 110V 1ph 50Hz 11.4A
Plug type BS4343 16A 110V
Generator size 5kVA min
Transformer 5kW min
Duct length (max) 40 metres
Duct size 300mm
Noise level (max, with duct) 72 dBA @ 1m
Weight 95kg
Dimensions (mm) 631 x 822 x 1,054
Control Manual
Average power consumption 1.25kW/h





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