BundGuard - bund dewatering system Issue 4

Guidance note for the Control of Pollution (Oil Storage) (England) Regulations 2001

Clause 29

"It is recommended that the water be collected in a sump formed in the base of the bund and removed using a manually operated pump or by baling.

A fail-safe automatic pumping system can be used, which monitors the oil and water interface, and automatically activates to pump out only water."

http://www.defra.gov.uk

The Andel BundGuard system was developed in 1992 specifically at the request of the UK electricity industry who faced serious water removal problems at substation sites all over the country. Since then many thousands of BundGuard units have been installed nationwide protecting the environment and the operator of the site.

Any tank, drum or plant containing more than 200 litres of oil must be provided with some form of secondary containment or "bund", to retain leaks, spills or worse. By law the bund must be capable of holding at least 110% of the contents of the main oil tank.

Larger oil storage tanks and equipment such as electricity transformers may contain several thousand litres of oil and are likely to be open to the elements. The bund will collect rainwater and, before too long, the holding capacity of the bund will be significantly reduced. Obviously as oil floats on water, once the capacity drops below 100% there is a risk of oil escaping over the bund wall in the event of tank failure.

The Andel BundGuard is a cost-effective, self-contained and easy to fit automatic pump and alarm unit which works continuously and automatically 24 hours, 7 days a week, 365 days a year.

Using advanced circuitry and micro controller technology, the system discriminates between oil and water; it keeps oil in and expels water from the containment area. The robust, all stainless steel, pump and sensor unit is located in the sump and monitors the different liquid levels. The control unit activates the pump as required to remove only clean water safe to foul sewer or interceptor (depending on site circumstances). Failsafe systems and a range of visual and relay alarm outputs ensure complete safety and allow onward communication to remote monitoring systems.

The use of the Andel BundGuard system removes the need for regular emptying of the bund by waste contractors thus reducing your costs, environmental impact and carbon footprint.

Control Panel

Power: 110/230 VAC, 440Watts (total inc pump)
Construction: Stainless steel, IP66 rated
Dimensions: 320h x 260w x 120d
Indicators: LEDs; Mains Supply, Pump Active, High Water Alarm, High Oil Alarm, Pump Disable
LCD; Pump Operation Counter
Outputs: Mains fail, High Water, High Oil, Pump Disable rated at;   10A @ 230VAC (AC1)
                                    0.1A@ 220VDC (DC1)
Fixing: Wall/surface mount via external fixing lugs

Sensor Unit

Power & Voltage: nominal
Construction: Stainless steel, immersion proof
Dimensions: 570h x 180w x 70d
Fixing: Free standing in base of sump

Pump

Power & Voltage: 230 VAC (110VAC optional)
Construction: Stainless steel
Dimensions: 250h x 160w
Safety: Thermal trip; self reset
Flow Rate: 110litres per minute at 2-3metre head
Fixing: Part of the sensor unit

Optional

A "plug and play" option to simplify maintenance for sites where the BundGuard may require more frequent attention. All connections between the sensor and panel via IP68 connectors.

The Andel BundGuard comes complete with a fixing kit (glands, jubilee clips, hose clips and fixings), anti-syphon device and 5metres of 18bar flexible hose. The unit is preconfigured in the factory although some on-site adjustment may be carried out if needed. No further calibration is required. Maintenance should be carried out every 6/12months depending on site conditions.

Ideally the sump should measure 60cm x 60cm x 60cm, call us for advice if your sump measures differently. The sump size and capacity affects the efficiency of the pumping system.

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Optional IP68 connectors where client might require simpler disconnect facility