OIL STORAGE MAINTENANCE AND COMPLIANCE

BundGuard® 6

BundGuard® 6 brings the latest functionality and communications technology to Andel's market-leading bund alarm and dewatering system

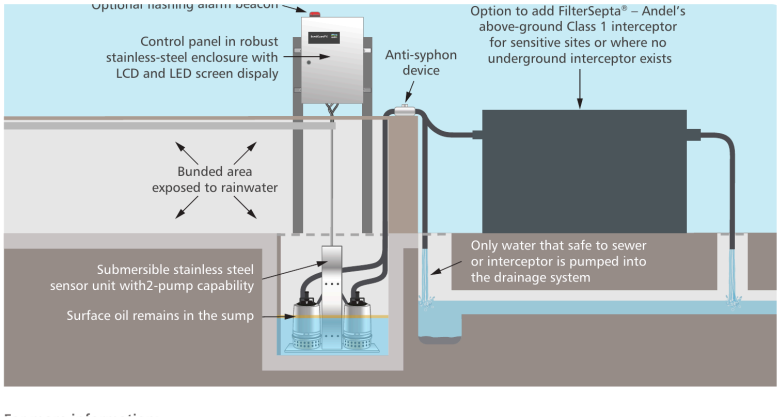


BundGuard® 6 protects your site 24 hours a day, 7 days a week, 365 days a year

The BundGuard® bund dewatering system was first developed by Andel in 1992 for the UK electricity industry and its growing need for an effective dewatering solution at substation sites.

Today, over fifty thousand BundGuard® units are installed in over 25 countries around the world, protecting site operators, preventing hydrocarbons from escaping and contaminating the environment.

BundGuard® is a sustainable, cost-effective and easy-to-fit dewatering and high-oil alarm system, comprising a robust UV-resistant control panel, submersible sensor/pump assembly and mounting system.



BundGuard® 6 keeps oil contained in the sump and pumps out only water that is safe to sewer or interceptor — with the option to add a FilterSepta® Class 1 interceptor.

BundGuard® 6 expels rainwater and keeps any oil contained within the sump

BundGuard® 6 discriminates between oil and water, keeping oil contained within the sump and expelling water from the contained or bunded area.

The robust submersible sensor unit monitors the different liquid levels in the sump via a series of conductive probes that can be

Benefits at a glance

- 10-year control panel warranty
- Low maintenance
- Early warning alarm for abnormal oil level, allowing timely action to prevent damage to the environment
- Fully automatic water pumping
- Dry sump alarm
- Oil in dry sump alarm
- Array of onward communications — VFC (volt-free contact), Modbus and SMS
- Pump current monitoring and maintenance alarm — extends the life of your pumps

Warranty: 10-year control panel warranty.

configured as required. The control panel activates the pump to remove only water that is safe to sewer or interceptor.

Failsafe systems and relay alarm outputs ensure complete safety and allow onward communication to BMS and other remote monitoring systems.

Configurable sensor probes and float switches

The submersible sensor unit is equipped with conductive probes and oil float switches that can be configured to suit each individual installation:

1. Common probe
2. Low water level probe
3. High water level probe
4. Pump stop probe
5. Pump start probe
6. High oil level float switch
7. Low oil level float switch – oil in dry bund alarm

The pump inlets are located at the base of the sensor unit, and the functionality of the system ensures that oil present in the sump always remains a safe distance from the inlets, ensuring it remains within the bund. The sensitivity of the probes can be configured to suit any site conditions, ensuring BundGuard® always delivers optimum performance, even in bund water that has developed low conductivity.

The control panel activates the pump when the water level reaches the pump start probe and deactivates it when the level drops below the pump stop probe. If the water reaches the high water level probe, the system goes into alarm and the second pump is activated. When water in the sump drops below the low water level probe, the system goes into alarm, stopping the pump. There is an option for relays to operate a valve or pump to top up the sump from a water-filled IBC.

The high oil float switch puts the control panel into High Oil Alarm. The low oil float switch puts the control panel into Low Oil Alarm if no water is detected between the common probe and the low water level probe. All alarms initiate onward communication to BMS and other monitoring systems via Modbus, email and SMS.

Robust, reliable and adaptable to a variety of site conditions

BundGuard® 6 ensures compliance with regulations, avoids pollution incidents and removes the need for regular bund emptying by waste contractors, reducing costs, carbon footprint and environmental impact.

BundGuard® 6 can be relied upon to consistently give accurate readings, avoiding problems associated with other systems such as false readings and repeatedly activating on and off, with the risk of pump damage and burnt-out components.

The control panel and submersible sensor unit are built to last and supplied in robust, stainless-steel enclosures. With regular maintenance, BundGuard® units have proven to perform for upwards of 15 years in all weather conditions.

Enhanced control, communications and functionality

- 2-pump integrated stainless-steel submersible sensor unit
- Option for larger pumps if required
- LCD and LED screen menu display
- High oil alarm with adjustable delay (0–60 minutes)
- High water alarm, low water alarm
- Low oil alarm — oil in dry bund alarm
- Pump current monitoring and maintenance alarm
- Mains failure, system fault and pump disable alarms
- Connector disconnection alarm and textual alarms
- Historical data storage and pump delay customisation
- Outlet water meter support, auto changeover, over-current disable
- Probe conductivity sensitivity configuration
- FilterSepta® integration and oil recovery system option (ORS version)
- Multi-language support: Polish, French, Italian, Dutch and English
- Battery backup for communications
- Modbus RTU interface with configurable parity, range of volt-free contacts to BMS
- 4G GSM modem with up to 5 forwarding numbers

Special builds

Andel has a team of experts that can adapt BundGuard® to deal with a variety of site conditions and special requirements. Special-build units can take inputs from probes that detect a wide range of pollutants and unwanted contaminants in site trade effluent, and can interface to customers' existing pollutant detection systems. If predetermined levels are detected, the system goes into alarm and pumps are deactivated to keep contaminants contained within the bund.

Typical special-build requirements include:

- Semi-ATEX units — sensors and pumps for zone 0 areas with control panels in non-hazardous areas
- Units linked to pH sensors
- Units linked to ammonia sensors
- Units linked to detect unwanted contaminants in site trade effluent
- Units linked to FilterSepta®, Andel's above-ground interceptor
- Power coupling for portable generators

Optional xenon amber flashing alarm beacon — compact, vandal-proof with a light diffuser for improved visibility. Weatherproof to IP67, with a choice of installation locations.

Configurations

BG6 Standard Sensor + Andel PremOne Pump
Item 500427

BG6 Control Panel
Item 500429

BG6 Standard Dual Pump Sensor+PremOne Pmps+NRV
Item 500512

BG6 Control Panel + GSM
Item 500515

TECHNICAL INFORMATION

STAINLESS STEEL CONTROL PANEL

Power: 110/230 VAC, 440 Watts (1 pump running), 970 Watts (2 pumps running)

Construction: Stainless steel, IP66 rated

Dimensions: (H) 415 x (W) 317 (excluding mounting lugs) x (D) 118 mm

Indicator LEDs: Power – Green; High Oil Alarm – Red; High Water Alarm – Red; System Fault – Red; Pump 1 Active – Green; Pump 2 Active – Green; Pump 1 Disabled – Yellow; Pump 2 Disabled – Yellow

Display: 2 x 16 characters LCD for pump cycle counter and system status plus set-up menus when accessed

Fixing: Wall/surface mount via external fixing lug

STAINLESS STEEL SUBMERSIBLE SENSOR UNIT

Power and Voltage: Nominal

Construction: Stainless steel, immersion proof

Dimensions: (H) 550 (600 including lifting eye) x (W) 240 x (L) 490 mm

Fixing: Free standing in base of sump

STANDARD PUMP

Power and Voltage: 230 VAC (110 VAC optional)

Construction: Stainless steel, immersion proof

Dimensions: (H) 250 x (W) 160 mm

Safety: Thermal trip with self-reset

Flow Rate: 140 litres per minute at 2-3 metre head

Fixing: Integrated – part of the sensor unit

CONFIGURATION

The unit is configured in the factory prior to delivery though some on-site adjustment may be required on installation. No further calibration is required. Maintenance should be carried out every 6 to 12 months depending on site conditions.

PLUG-AND-PLAY OPTION

A Plug-and-Play option is also available to simplify site maintenance where site conditions mean that BundGuard® units may require more frequent attention. All connections between the sensor unit and the control panel are via IP68 connectors.