

FLOOD DEFENCE

Andel FloodPump[®]

Industry-unique, automatic
flood pump



An integrated solution for automatic pump
activation, alarm notifications and control
of flood defence closure equipment

Protecting your assets. Protecting the environment.



Andel FloodPump®

An industry-unique, advanced, automatic flood pump system that can be deployed inside or out, protecting buildings and protected areas at risk from flooding. The system works continuously and automatically 24 hours a day, 7 days a week, 365 days a year.

Andel FloodPump® has the capability to:

- Automatically operate up to two flood pumps
- Send text alarm notifications and updates to mobile devices
- Send alarm notifications and updates to a building management system (BMS)
- Control other flood defence closure equipment such as flood gates, flood doors and drain flaps.

Andel FloodPump® comprises an insertion unit, a wall-mounted control panel and up to two flood pumps.

Insertion unit

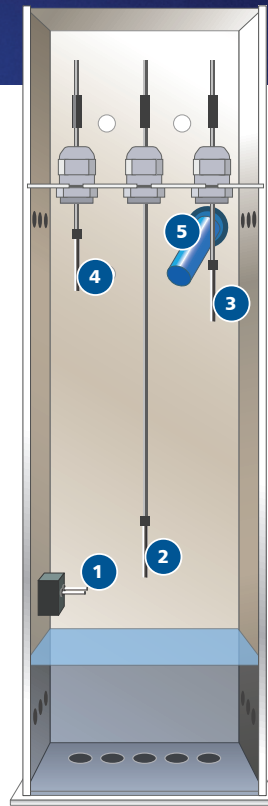
The robust stainless steel insertion unit with single integrated flood pump is installed below ground level either inside a property, or outside within the perimeter of a protected area. The unit is equipped with a number of probes that can be configured and set to levels to suit the flood risk in any given scenario.

Control unit

The control unit recognises conductivity between the probes in the insertion unit and as water levels rise, can perform a multitude of automatic functions. Output relays also provide round-the-clock system status alerts.

Flood pump

The standard FloodPump® pump operates at a rate of 150 litres per minute. The system can also operate two pumps, either alternating to share the load or running simultaneously as a booster system. There is also an option to install larger capacity pumps if required.



Insertion unit probes:

- 1 COMMON PROBE
- 2 STOP PUMP PROBE
- 3 START PUMP PROBE
- 4 HIGH WATER ALARM PROBE
- 5 FLOAT SWITCH OIL ALARM*

The common probe **1** creates conductivity with the other probes. The control unit recognises conductivity between probes and responds to rising and falling water levels.

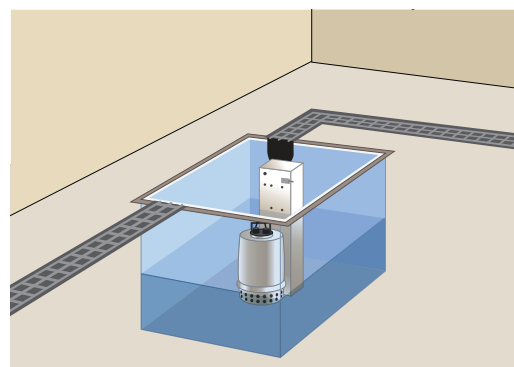
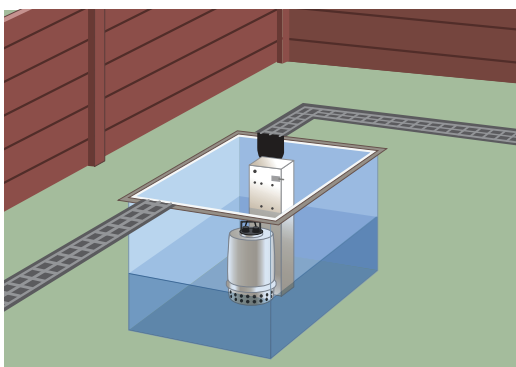
*The float switch will only trigger if oil is present in the insertion unit and oil detection alarm notifications would be sent out.



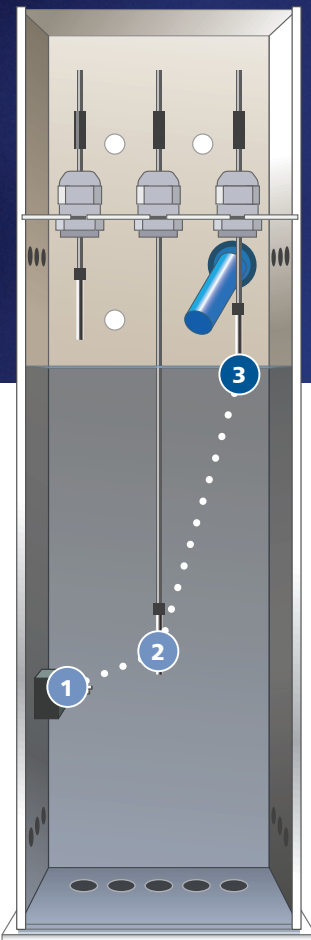
The wall-mounted control unit performs a multitude of automatic functions.



The standard pump operates at a rate of 150 litres per minute – secondary pump and larger pumps are available if required.



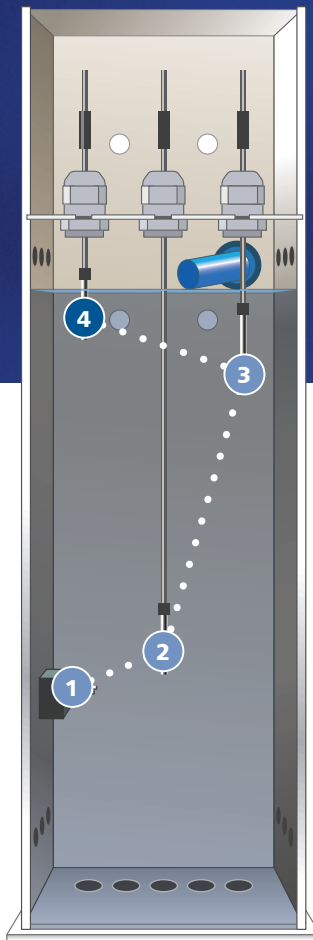
The robust insertion unit and integrated pump is located below ground level and can be installed outside within a perimeter flood defence or inside a building or property. A drainage channel or gully allows flood water to enter the sump where the insertion unit is located.



When the rising flood water level reaches the **Start Pump Probe**, the control unit recognises conductivity between **three probes**.



The primary flood pump is activated automatically.



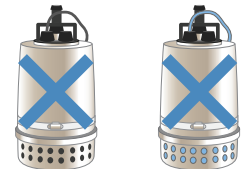
When the rising flood water level reaches the **High Water Alarm Probe**, the control unit recognises conductivity between **four probes**.



Alarm notifications are sent via SMS to mobile devices and alarm notifications are sent via Modbus to BMS.



When the receding flood water level falls below the **Stop Pump Probe**, the control unit recognises that there is no conductivity between probes.



The pump or pumps are switched off automatically.

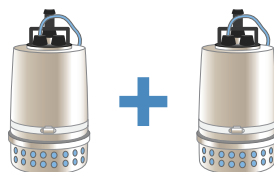
Closure devices remain closed until manually opened to avoid any external flood water re-entering the protected area.

The system continually monitors water levels and if the water level rises again in the insertion unit, the cycle automatically repeats.

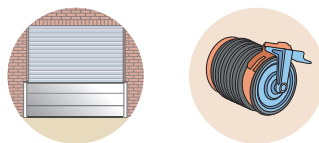
Andel FloodPump® – example cycle

The illustration shows how a cycle can work within a protected area during a flood event with rising and falling water levels.

The example includes the option of a secondary pump and flood defence closure equipment. Andel FloodPump® can be configured to meet a range of individual requirements based on a flood risk assessment.



A second flood pump is activated automatically.



Flood defences such as flood gates, flood doors and drain flap closure devices are automatically activated.

Maintenance alerts – the system constantly monitors the performance of the insertion unit and pump/s and will send text notifications if the system requires servicing between scheduled maintenance visits.

Andel provides consultation, design, manufacturing, installation and support services for four key specialist areas:

- LEAK DETECTION
- FUEL AND OIL STORAGE MAINTENANCE AND COMPLIANCE
- INTERCEPTOR AND DRAINAGE MAINTENANCE
- FLOOD DEFENCE

Working with some of the largest public and private organisations in the UK for over a quarter of a century:

- | | | |
|----------------------------|--------------------------|---------------------------------------|
| Telefonica | Rolls Royce | CBRE |
| Wellcome Trust | Microsoft | Engie |
| Global Switch | Google | Interserve |
| Bank of America | Facebook | ISS |
| HSBC | Equinix | Sodexo |
| Deutsche Bank | The British Museum | Addenbrookes Hospital |
| Northern Power Grid | HM The Queen | Imperial College Healthcare NHS Trust |
| SSE | The Houses of Parliament | University of Cambridge |
| Western Power Distribution | Vodafone | University of East Anglia |
| Electricity North West | EE | University of Warwick |
| Goldman Sachs | Virgin | Leicestershire Police |
| Airbus | Bouygues | Merseyside Fire & Rescue Service |

Exporting across the world:

Australia, Brazil, China, EU Countries, Hong Kong, Israel, Malaysia, New Zealand, Singapore, South Africa, The Gulf States, USA.



For more information call +44 (0)1484 845 000

Head Office: Andel Ltd, Unit 1 Dodworth Business Park
South, Upper Cliffe Road, Dodworth, Barnsley S75 3SP

help@andel.co.uk

www.andel.co.uk

Protecting your assets. Protecting the environment.

