

## Hevasure case study: 155 Bishopsgate, London

**Customer:** Broadgate Estates

### Context:

Broadgate Estates provides property management services at the highly prestigious 155 Bishopsgate building in central London which houses major international banking, finance and investment companies including AXA Asset Management, Lloyds Banking Group, Sumitomo Mitsui, and Tullett Prebon as well as retail units.

Of critical importance to such building tenants is continuity of high quality building services and resilience to disruption. Broadgate’s management approach is therefore one of constant improvement and innovation.

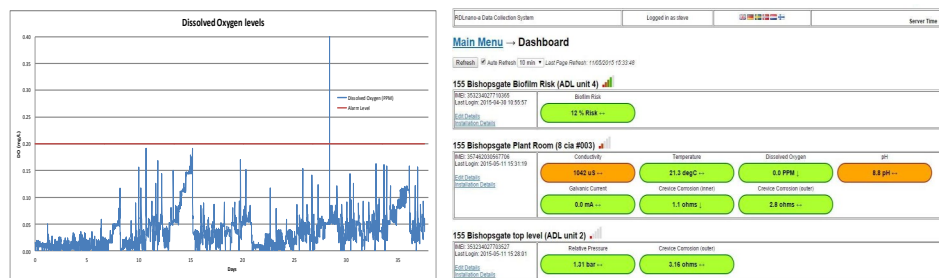
### Solution:

Hevasure’s unique ability to monitor, capture and understand data (remotely) thereby minimising any risk of failure in the critical HVAC systems of commercial properties, fits this philosophy perfectly.

The fact that Hevasure is easily retrofitted into existing HVAC systems allowed Broadgate Estates to firstly check the exact state of the building’s systems (Hevasure Health Check service) and then to establish an on-going remote-monitoring service with alerts and monthly management reports (Hevasure Premier service).

When appropriate these reports recommend actions to maintain HVAC system efficiency (saving energy and cash) as well as system health (reducing risk). Data gathered over time provides evidence that can be used to prove proper management regimes have been followed (compliance with regulations and desired standards) and also to improve system performance.

Embracing the cost-effective cleantech technology from Hevasure, Broadgate Estates reduced the risk of disruption caused by HVAC failure, enhanced the smooth running of the building and the ensured a consistently high level of service that their client rightly expects.



**Remote monitoring 24/7 ensures that the building always operates at peak efficiency and health. An on-line dashboard provides instant visibility of any issues and all necessary data to make improvements.**

Parameters monitored	
System integrity	
Dissolved oxygen	<p>It is essential that DO is low in a closed system (ideally less than 0.2mg/L).</p> <p>Dissolved oxygen is the main driver of corrosion: without it there is no cathodic reaction. By measuring DO we can ensure the system is airtight and that any oxygen introduced by fresh aerated water is quickly consumed.</p>
Pressure	A closed system must maintain a positive relative pressure at all times to avoid air being sucked into the system. We monitor this at the highest point in the building using a small satellite monitoring system.
Temperature	Measuring temperature checks that the required heat is being produced.
Water make-up	We measure water make-up volume to indicate leaks in the system or inform us on planned flushing activities
Water characteristics	
Conductivity	For inhibited systems, measuring conductivity tells us the concentration of the water treatment products (inhibitors). We will be able to tell if a system is being
pH	For systems containing aluminium we check that the pH is not going above 8.5 (otherwise the passive films break down and aluminium components such as
Biofilm risk	When biofilms form microbial influenced corrosion (MIC) often occurs and this can lead to wall thinning and pin-holing in metal pipes. We are now able to offer biofilm monitoring to our armoury of sensors
Corrosion	
Galvanic currents	We have developed our own sensor to monitor the currents that occur between different metals in the system leading to serious corrosion. In plain water galvanic currents increase in proportion to dissolved oxygen. However, inhibitors when at the correct strength passivate metal surfaces and suppress galvanic currents. By using this sensor we can check that the inhibitor is doing its job effectively, even when there is some oxygen in the system.
Crevice corrosion	This is a very insidious form of corrosion leading to rapid pitting attack and pin-holing. It occurs in localised regions such as weld seams and under debris due to a micro-environment being set-up. We have developed and patented our

## Contact us

To find out how the Hevasure Monitoring Service will improve the efficacy and efficiency of your heating/cooling system and reduce risk to your valuable building assets, contact us now !