

# Polysync Surface Water Control

PRODUCT INFORMATION

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Polysync is an intelligent, real-time, surface water control solution. The system delivers flood and climate change resilience, creates a platform for optimal reuse, while reducing potable water consumption.

The Polysync system uses highly accurate and secure hydrological and meteorological data, state of the art sensors, management systems, actuated valves and flow monitoring technology. Together, these deliver intelligent control of stormwater attenuation tanks, allowing attenuation and harvesting tanks to be combined into a single asset with levels optimised for reuse.



## Applications

City plans and sewerage sector guidance have begun to prescribe the reuse of rainwater as part of their SuDS hierarchies when designing schemes.

Polysync is easily managed through the Polysync.online portal, giving owners visibility of all of their storage assets, confidence in the working of their systems and allowing data capture of the reuse benefits and discharge rates.

As conventional SuDS attenuation systems run empty during the majority of seasons, offering limited reuse, and release water regardless of forecasted weather events. Water reuse capacity is not utilised in stormwater calculations, leading to conventional systems often being designed larger than is actually required. These conventional systems are only designed to slow the rate of flow, however they are not able to prevent flow into a main drainage network, leading to potable water being used for tasks such as irrigation, when stormwater should be reused.

The Polysync system is able to resolve the challenges surrounding conventional attenuation by integrating smart technologies into new and existing assets, leading to significant cost savings for developments in the short & long term. By combining attenuation and reuse for tanks at roof, podium and sub-surface levels, the storage volume required and the pipe outlets and diameters needed can all be reduced.

The system is continually learning and optimising system performance in a manner scalable from plot level to catchment wide. Releasing water stored for reuse in advance of storm events, by handling data from storage tank sensors, local weather stations and accurate 15-minute postcode level weather forecasts, the system frees capacity for flood mitigation attenuation.

Stormwater reuse is optimised, mitigating the demand for unnecessary potable water usage and reducing water discharge charges. Vegetation can be optimally managed, when Polysync is combined with Permavoid passive irrigation technologies and Rainstream reuse systems, net-zero, improving green infrastructure benefits such as heat-island mitigation, habitat provision, stormwater retention, and air and noise pollution reduction.

Facilitating the futureproofing of developments, Polysync can enable communication and integration with the wider sewage network and give the option for dynamic discharge rates, allowing sites to adapt to future stricter legislation.

## Key Benefits

- In-house, ISO certified, data centre and services offers security
- Multiple data inputs (sensor / radar / forecast) offer postcode level accuracy
- Integrates Green Urbanisation surface water storage technologies, increasing both volumetric and green asset resilience
- Only releases stored water when necessary to collect storm event, making best use of rainfall by storing for re-use
- Allows rainwater reuse and stormwater attenuation tanks to be combined, reducing overall space required on site
- Reduction in post storm volumes from developments minimises impact of extreme weather events on downstream water courses and drainage systems
- Real time monitoring of attenuation tank allows automated alarms and remote drain down
- Improves growth of healthier vegetation when combined with passive and Rainstream irrigation
- Year-round system support ensures best possible functionality

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## Product Section

Polysync is available to suit any attenuation tank, from RidgistormXL large diameter pipe, to Permavoid or Polystorm geocellular, to existing asset.

The supplied components are:

- Polysync Hub
- Level sensor
- Flow meter
- Electrically actuated ball or butterfly valve

The system suits 50, 100, 150 and 225mm nominal bore discharge pipework.

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## Technical Support

Detailed guidance and assistance are available. For further information, please contact our Technical Team on **+44 (0)1509 615 100** or email: [civils@polypipe.com](mailto:civils@polypipe.com)

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